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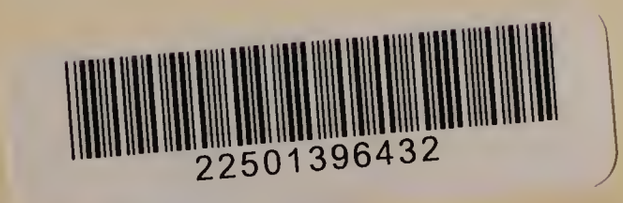

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# ORIGINAL LECTURES.

## COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

### Lecture VI.—Acute Tuberculosis (*Continued*)—Tubercular Meningitis (Acute Hydrocephalus).

(*Continued from page* 556, *vol.* 1.)

The following case furnishes a very good example of an ordinary attack of acute hydrocephalus, and it is especially interesting from the fact that the patient was under observation for some time previous to the beginning of the first definite symptoms of the disease.

William G., aged four years, was admitted into the East London Children's Hospital, under the care of my colleague Dr. Bruce, on December 4. He had been a healthy boy until a month before admission. At that time he had an attack of measles, and on the disappearance of the eruption he did not thoroughly recover. The child seemed ailing; he coughed occasionally, and was a little feverish. He slept well, however, and had a good appetite; his bowels were regular, and he did not notably lose flesh.

On admission he was found to be suffering from pulmonary catarrh, and the percussion-note was thought to be a little high-pitched at the right apex, with some hollow quality of breathing there and at the left side, but nothing very definite was discovered. For a few days the evening temperature was 100°, but on December 10 it became natural, and remained so until the 17th, when the child was sent as convalescent into the country. On December 30, however, he was sent back to the hospital as not improving, and for the five following days he was noticed to be quiet and silent. He seemed unusually drowsy, and his appetite began to fail. The bowels were not confined, but acted two or three times in the day. During these five days his evening temperature was successively 100·4°, 98·4°, 98°, 99·6°, and 97·6°; and on this last evening (January 4) the pulse, which had been always over 100, was found to have fallen to 74 and to be irregular. On the next morning (January 5) he vomited, and his bowels became confined. The temperature in the morning was 99·4°; pulse 72, intermittent; respirations 36, irregular; temperature in evening, 101·6°. These invasion symptoms marked the first day of the established disease. The vomiting on this and the following day was very troublesome; he retched frequently, but with little effect. He was very drowsy, dozing and waking up from time to time with a scream. There was no squinting, and the pupils were equal.

January 6 (second day).—9 a.m.: Temperature 100·2°; pulse 62, very intermittent; respirations 18. 6 p.m.: Temperature 100°; pulse 78; respirations 26.

7th (third day).—Very stupid, but answers intelligently if roused. Occasionally gives a short angry cry, and then lies quiet. Conjunctivæ injected, and transient internal squint of both eyes. Pupils equal, and act naturally. Belly not much retracted. 9 a.m.: Temperature 100·6°; pulse 80; respirations 22. 6 p.m.: Temperature 101·2°.

8th (fourth day).—Dulness increases, but he still can be made to answer intelligently. He passes his water, however, in the bed. Bowels acted to-day (first time for forty-eight hours) after a purgative followed by an injection, and a large ascaris lumbricoides came away with the stool. Face rather flushed, but *tâche cérébral* not well marked. 9 a.m.: Temperature 101°; pulse 84, still intermittent; respirations 28, still irregular and sighing. 6 p.m.: Temperature 102°; pulse 96; respirations 40.

9th (fifth day).—Lies with eyelids half closed, apparently asleep; contracts brows, and every few minutes gives a peculiar squeal; expression of face spiteful; cheeks flushed, but not much redness produced by irritation of the skin; nares acting, but not with each breath; squints slightly with left eye, and left pupil is larger than right. When called by name opens eyes, but does not appear to understand question. Respirations 16, with frequent pauses and occasional deep sighs; pulse 160, regular in force and rhythm. Decided rigidity of muscles at back of neck, but none of muscles of limbs. Abdomen not particularly retracted, and walls flaccid. Percussion-note at right side of sternum over the second and third ribs rather toneless, and respiration high-pitched, but vocal resonance not increased. Elsewhere chest seems healthy. At 9 a.m., temperature 102·2°; pulse 116; respirations 28. At 7 p.m., temperature 102·4°; pulse 152; respirations 24.

10th (sixth day).—More comatose, and quieter; screams less frequently; lies with eyes half open and expression rather stupid than spiteful, but still is not completely insensible, for complains if disturbed. Face paler. Pupils nearly equal, and of moderate size; some internal squint of left eye. Bowels still confined; passes water in the bed. The nurse states that he has been rather convulsed, his limbs and eyes "working." Muscles generally flaccid, but still stiffness at back of neck, and some rigidity about right knee-joint. 9 a.m.: Temperature 102°; pulse 130, regular, but weaker; respirations 26, irregular both in depth and frequency. 7 p.m.: Temperature 102°; pulse 116; respirations 30.

11th (seventh day).—Quiet; has ceased screaming; seems less stupefied; has spoken distinctly, and takes drink without difficulty. Pupils act well with light; generally unequal. Belly rather distended; bowels very confined. 9 a.m.: Temperature 103·2°; pulse 116, regular; respirations 30, sighing; 7 p.m.: Temperature 102·6°.

12th (eighth day).—Coma deeper; face flushed and perspiring. Ophthalmia of both eyes; pupils unequal. Irregular spasmodic movements of limbs, especially right arm and left leg. 9 a.m: Temperature 101·8°; pulse 112, regular; respirations 40, very irregular. 7 p.m.: Temperature 103°.

13th (ninth day).—Lying as if asleep; right cheek flushed. Pupils equal, large, contract with light. When eyelids are touched he opens both eyes and makes a moaning sound, but appears quite unconscious, although he is stated to have said "no" in answer to a question from his mother. Sighs frequently. Bowels relieved last night by injection. Same stiffness about knee-joints. Large bubbling rhonchus heard about chest. 9 a.m.: Temperature 101·6°; pulse 116, irregular in force, regular in rhythm; respirations 40, excessively irregular. 7 p.m.: Temperature 102·4°. In afternoon had a fit in which the right side of face alone was convulsed.

14th (tenth day).—State much the same. Coma seems deeper. Rigidity of extensor muscles of leg. Moans occasionally. Ulceration of left cornea. 9 a.m.: Temperature 103·2°; pulse 128; respirations 44. 7 p.m.: Temperature 103·6°.

15th (eleventh day).—Sinking. Face covered with large drops of sweat. Abdomen more retracted than before. Respirations very irregular and laborious, 68; pulse excessively rapid and weak; temperature 9 a.m. 104·4°, 3 p.m. 105·8°, 6 p.m. 106°. Patient died at 11 p.m.

On examination of the body the pia mater was found much injected at the base of the brain, and contained numerous small grey granulations; corpus callosum much softened. Lateral ventricles contained a large quantity of fluid, and the convolutions were flattened. The lungs contained patches of collapse and a few caseous nodules, but no grey granulations were found in them or in any of the other organs. The bronchial glands were enlarged and cheesy.

The preceding description represents a typical case of acute hydrocephalus, in which the brain symptoms are the first local phenomena to occur in the general disease. It is then called primary tubercular meningitis to distinguish it from cases where the grey granulation is more generally diffused over the body, and where the symptoms arising from the cranial cavity occur subsequently to others proceeding from the chest or the abdomen. In this the secondary form of the disease, the symptoms of the earlier stages are usually masked by the more prominent symptoms emanating from the organs previously attacked. In such cases the first manifestation drawing attention to the brain may be a violent convulsive fit, a paralytic lesion, or other sign indicative of the third stage of the disease; and it is not uncommon for acute tuberculosis with severe chest symptoms to be brought to a sudden close by this complication.

John W., aged sixteen months, the illegitimate child of a consumptive mother, was said to have been healthy up to the age of six months, when he was attacked with sickness and diarrhœa, which lasted eight weeks. After this, however, he seemed to recover, and remained pretty well until the beginning of May, when he began to cough, and his breathing seemed oppressed. After some time these symptoms improved, and the child appeared, according to the mother's account, to be going on well, when, on June 9, he had a fit which lasted a

quarter of an hour. During the following forty-eight hours the fits were frequently repeated, and three days afterwards (June 12) the child was admitted into the East London Children's Hospital. The temperature on the evening of admission was 102·8°. On examination of the chest on the following day, signs of consolidation were found at the upper part of the right lung, and the respiration in the right axilla was tubular.

The fits continued, and were very violent. During the attacks both sides of the face twitched, the tongue was bitten, and all the limbs became rigid and were convulsed. Between the fits, consciousness was not restored; the eyeballs oscillated, and the eyes were often turned upwards. There was no squint. The convulsions continued with short intervals until the evening of June 16, when they ceased. The temperature all this time was over 102°, both morning and evening. The pulse was quickened, but remained regular, 140 to 150; and the breathing was hurried and irregular, with deep sighs.

June 17.—No fit since yesterday evening. Child quite unconscious; face pale; nares act; eyeballs oscillate, turned rather upwards; pupils contracted, but act slowly with light; tongue ulcerated from being bitten during the fits. Breathing very rapid (75), but not laborious; intercostal spaces sink in rather deeply during inspiration. Pulse 157, regular. Skin wet with perspiration; very little flushing on irritation of the skin. On examination of the chest, dulness was found at the upper half of the right side. The respiration in the axilla was intensely tubular; elsewhere on that side it was covered by a fine crisp bubbling rhonchus, which was heard all over both sides of the chest. There was also dulness at the lower half of the left back, and the respiration was blowing, becoming tubular at the base. 9 a.m.: Temperature 104·8°; pulse 174; respirations 75. 7 p.m.: Temperature 105°. The child died quietly the next day. Temperature, a few hours before death, 105·8°.

On examination of the body, numerous small grey granulations were found in the pia mater, the lungs, and the spleen. The pia mater was much injected at the base of the brain, and a patch of effused lymph was seen on the left side. The whole brain seemed softened, and the lateral ventricles contained a large amount of fluid. Both lungs were the seat of pneumonic consolidation, and in the right were several small cavities.

In this case the occurrence of a convulsive attack was the first alarming symptom noticed by the mother. Before this event took place, although the child was no doubt feverish, and was, as we know, troubled with cough and some oppression of breathing, there was yet nothing in its condition which appeared sufficiently urgent to require medical advice.

On admission, the obstinate recurrence of the fits, the continuance of insensibility between the attacks, the oscillation of the eyeballs, and the other symptoms, made it evident that the convulsions were not merely sympathetic with the condition of the lung. In certain forms of pulmonary disease in the child, sympathetic convulsions are not uncommon. Thus in the course of acute capillary bronchitis they are often observed, especially if that disease be complicated by collapse of the lung. They are also not unfrequent at the close of acute catarrhal pneumonia; and at the beginning of many acute diseases in the child convulsions may occur, taking the place of the rigor which often ushers in an acute disease in the adult; but it is very rare for sympathetic convulsions to appear first in the course of an acute pulmonary consolidation. Where this happens we should always, as in the present case, suspect the existence of some complication. All the symptoms here pointed to meningeal inflammation, and the history of the attack, combined with the pulmonary symptoms, made it evident that the case was one of acute general tuberculosis. Where, as in the present instance, the first symptoms pointing to the brain are those of the third stage, it is rare to find a slow pulse. In the third stage of acute hydrocephalus, the pulse, as a rule, has become rapid and often regular, the period during which it is slow and intermittent having gone by.

Louisa P., aged six months, born of a healthy family, had been herself a healthy child up to the age of five months, when, after a severe attack of acute diarrhœa, she began to waste, and for the following month seemed low and ailing. She was then (December 1) admitted into the East London Children's Hospital. The child was thin and weakly-looking, weighing only twelve pounds three ounces. The fontanelle was rather depressed, and she was very peevish and fretful. The cervical glands were enlarged and also those of the axilla and groins. The abdomen was very firm and tense, and the liver and spleen seemed to be slightly enlarged. Her bowels were opened twice a day. There were signs of slight consolidation of the right apex, and all over the right back the respiration was weaker than on the opposite side. Large bubbling rhonchus was heard all over the chest. The evening temperature at first varied between 99° and 100°, the pulse was small and rapid (120), and the breathing hurried (40).

The child remained very fretful until December 14, when she became more composed, her appetite improved, and she seemed generally better. She coughed less, and the bronchitis from which she had been suffering appeared to be subsiding. Her weight on this date (December 14) was exactly the same as on the day of her admission into the hospital.

During the next fortnight the temperature varied between 99° and 101°, and the child seemed growing daily weaker. Her cough, too, returned and was very troublesome. On December 29 much consolidation was found on the right side. In addition, however, she had begun to squint with the right eye, and had occasionally slight twitchings of the muscles of the face. The temperature rose, and both the pulse and the respiration became quickened.

On December 31, 8 a.m., temperature 103°, pulse 150, respirations 60; 6 p.m., temperature 103·2°, pulse 156.

On the following day she seemed about the same; the squint, however, had ceased, and the pupils were equal. The temperature remained high (103° at 6 p.m.), and the fontanelle was much elevated.

On January 3 she had a violent convulsive fit early in the morning, after which the left pupil was noticed to be larger than the right. In the evening the fits returned, and the child died in the course of the night. The evening temperature during the last three days was 103°, 103°, and 102·8°.

A post-mortem examination showed the body to be the seat of acute general tuberculosis. The lungs were studded with grey granulations, and there was pneumonic consolidation of the right lung, which had softened into a small cavity towards the base. Numerous grey granulations were also found in the heart, kidneys, intestines, and in the meninges of the brain. The lateral ventricles were full of fluid, and there was besides a yellowish nodule the size of a small pea in the white matter of the brain near the lateral ventricle of one side.

The two preceding cases furnish very good examples of the way in which the earlier symptoms of acute hydrocephalus are obscured when the disease occurs in the course of an attack of acute tubercular phthisis. In such cases the occurrence of marked brain symptoms is a sign that the disease is about to run a rapid downward course, and that the end is not far distant. The case of Louisa P. is interesting as showing that the emaciation does not always proceed with regularity, for during the first fortnight of the child's residence in the hospital her weight remained stationary. The patient's appetite was good, and the quiet, and the better food she was taking at the time, no doubt contributed to this result.

(*To be continued.*)

## ORIGINAL COMMUNICATIONS.

# TUMOUR OF LATERAL PORTIONS OF THE LOWER JAW REMOVED WITHOUT EXTERNAL WOUND.

By C. F. MAUNDER,
Surgeon to the London Hospital.

So far as I am aware, the instructions usually given by authors to guide surgeons in the removal of portions comprising more or less of the whole depth of the lower jaw, when the seat of tumour is not merely the symphysis, involve section of the skin. Some advise certain incisions to be traced so as to form a flap; in one case to be turned up, in the other to be turned down, in order to expose the condemned piece of bone. Some, in making the flap, carry the incision into the mouth, either at its angle or some point of the lower lip, and thus deform this feature. Others are content with incision of the cheek, leaving the mouth untouched. Some of the instructions, if followed, must disfigure the patient very seriously. Free incision of the cheek, as is recommended, entails free bleeding and delay in arresting it, the formation of unsightly scars, and an unnecessary interference with the nervous supply to the muscles

of expression. The mode of proceeding which I have practised in two instances is here described, and the result illustrated.

*Case* 1.—*Myeloid Tumour of the Lower Jaw.*

The patient, C., ten years of age, referred to me by Mr. Owen, of Leatherhead, is a female. The left base of the jaw was enlarged to the size of a hen's egg, the swelling projecting outwards, and inwards to the floor of the mouth, displacing the tongue somewhat, and deforming the lower part of the face. The tumour had a history of two years, was painless, smooth on the surface, and hard and resistant to the touch, and gave one the impression that a growth within was expanding the jaw. It had enlarged rather quickly of late. The teeth usually found at that age were present. I did not pretend to make a diagnosis beyond suggesting that it was probably benign. I thought it possible that I might have to deal either with a cyst or with a fibrous or cartilaginous growth, and, if so, that I might be able to evacuate the one and enucleate the other, and, at the same time, preserve the line of the jaw unbroken; in this I was disappointed.

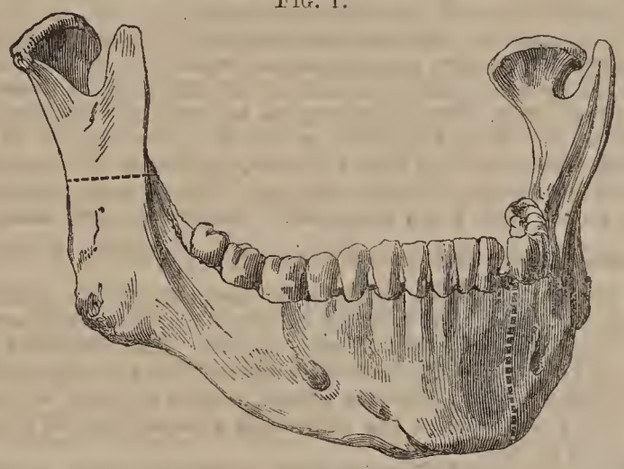
*Operation* (March 9, 1870).—The child being under the influence of chloroform, recumbent, with the head well forwards, I penetrated the tumour at the most resilient spot with a drill by way of exploration. A little blood only flowed. With a chisel and mallet I perforated the thin, bony wall at this spot, and extracted a small portion of a growth. This was at once submitted to a microscopic examination by Dr. Sutton and Mr. Tay, and pronounced to be myeloid. The bleeding from the growth, now increasing, was checked by the introduction of a bit of sponge. I determined to remove the portion of bone containing the growth, and if possible through the mouth, and without cutting the skin of the cheek and lip at all. Standing somewhat behind, and on the right side of the patient, the integuments of the chin, including muscular attachments and periosteum, were first turned down off the symphysis, partly with a scalpel and partly with a raspatory, so as to expose the right side of the jaw opposite the right canine tooth (which was then extracted by Mr. A. W. Barrett) to the action of the saw and cutting forceps. At the back of this position the soft parts were also detached from the bone, and the floor of the mouth was perforated so as to admit of the introduction of a narrow spatula passed behind the bone to protect the soft parts from injury by the saw. The section here being completed, the mucous membrane and periosteum covering the tumour both in front of and behind the alveolus, as well as along the lower half of the anterior edge of the ramus, were severed down to the bone; and a raspatory introduced separated the periosteum, and with it the muscular attachments to the required extent. By a little manœuvring the end of the raspatory was made to pass round the base of the jaw and to appear under the floor of the mouth, and with the aid of the forefinger similarly introduced, the soft parts on the deep surface of the bone were detached from it. It was found to be possible to turn the soft parts covering the chin literally inside out. While the bone was being cut by the forceps the thin shell containing the tumour cracked, and so the condemned fragment came away in two portions. This fracture did not facilitate the operation. The next step consisted in cutting across the ramus about its middle, and this was effected with forceps alone (guided into position by the point of the left forefinger), but not without some longitudinal splintering. During the operation the mouth was kept open by a gag. Before detaching the frænum linguæ and muscles at the back of the symphysis, the tongue was secured by a ligature passed through it near the tip, and held by an assistant to prevent the possibility of the organ falling back upon the larynx. Also before the patient left the theatre the tongue was firmly secured with its raw surface in apposition with the raw surface of the integuments of the chin by a harelip-pin, and also by fastening the ends of the ligature previously passed through the tip of the organ on either side to either end of the pin. Bleeding was trifling, no ligature being requisite.

*Progress of Case.*—During the early days following operation there was a good deal of swelling about the mouth, with fetid discharge. The child was sustained in a semi-recumbent posture with the head well forwards. The buccal cavity was repeatedly syringed with Condy's fluid and water, and liquid nourishment was plentifully administered. The case progressed favourably throughout; and before three weeks had elapsed, she could protrude her tongue tolerably well and articulate; and was running about the ward. Subsequently a very small piece of necrosed bone came away from the sawn surface of the remnant of the base.

*Examination of Bone.*—My colleague, Mr. Barrett, examined the diseased bone, and discovered a misplaced second bicuspid tooth; it was lying at right angles to its natural position. This malplaced organ may have been the cause of the growth; but inasmuch as the corresponding tooth was also absent, the fact was comparatively valueless from an etiological point of view.

*Remarks.*—The patient was recumbent during the operation, but no sign of danger from blood passing into the larynx was exhibited. Bleeding was comparatively trifling, the blood coming chiefly from the tumour when this had been broken into, but this was arrested at once by the introduction of a piece of sponge. A groove in the gum having been made with a scalpel so as to admit the end of the raspatory, the periosteum and chief muscular attachments, such as those of the masseter and internal pterygoid, were separated, and the bone being bared, awaited section only. By this proceeding a very large piece of the lower jaw (Fig. 1.), containing a growth of the size of a hen's egg was removed through the mouth, without any section whatever of skin, with trifling bleeding, and without division either of the facial artery or of branches of the facial nerve. And what is of great importance in the female, at all events, there is *no* scar. Fig. 1 shows on the healthy jaw, included by the dotted lines, the extent of bone removed. (By an error of the artist the right instead of the left side of the jaw is represented.)

Fig. 1.



*Postscript* (April 19, 1874).—To-day, in company with Mr. Owen, I visited the child, the subject of the above remarks, and who had been operated upon rather more than four years ago (March 19, 1870). I found her wonderfully grown, being unusually tall for her age, but thin. Although possessed of only three teeth in the remnant of the right half of the lower jaw, she masticates tolerably well, and enjoys good health. She works at her needle many hours daily; and notwithstanding this cramped position she carries herself well, being very upright. Twenty months subsequent to the operation, when her photograph was taken, of which the woodcut (Fig. 2) is

Fig. 2.

a copy, the deformity was comparatively slight; but now, by lapse of time, growth, and development, the upper part of

the face has become enlarged in all directions, while the fragment of the lower jaw has probably remained nearly stationary. The immediate effect of the operation was (two-thirds of the semicircle of bone being removed) to allow the remnant to fall in towards the centre of the mouth, and to make the chin somewhat pointed. Now, by reason of her growth, the pointed chin is more marked, as though she were the subject of a congenital want of development of the lower jaw, whilst when the muscles about the mouth are in a state of repose, the mouth falls away to the left. Her mother says this is especially evident during sleep. The maximum of deformity will be reached when the patient is full-grown, which may be expected if the operation be performed in early life; while the minimum will accrue to an adult submitted to a similar operation.

*(To be continued.)*

## NOTES ON SOME ANOMALIES OF REFRACTION.

By CHARLES HIGGENS, F.R.C.S.,
Assistant Ophthalmic Surgeon, Guy's Hospital; Surgeon, Central London Ophthalmic Hospital.

THERE are two anomalies of refraction of the eye, which, although recognised by ophthalmologists, appear not to have received sufficient attention as regards treatment, which, if properly carried out at first, will save the surgeon endless trouble, and will spare his patient much inconvenience, and in many cases prevent considerable suffering.

The anomalies alluded to are—first, high degrees of hypermetropia; secondly, the astigmatism which is met with in by far the greater number of cases of the distressing asthenopia of short sight. The treatment to be presently described, of the first of these, is insisted on by Mr. John Couper in his clinical teaching, and was, I believe, mentioned by him in his Oration before the Hunterian Society. The second has received no notice that I am aware of. Under the first class are included cases of hypermetropia above $\frac{1}{12}$, which, if treated in the ordinary way (that is, by neutralising the manifest hypermetropia), will give no trouble for a time; but sooner or later the asthenopia returns, and the glasses ordered are found too weak. Patients thus affected go from one oculist to another, getting stronger glasses ordered by each, but with the like result—that the asthenopia returns and the glasses become useless.

The treatment I adopt in these cases is as follows:—Having diagnosed a high degree of hypermetropia with the ophthalmoscope, a solution of atropine gr. iv. ad ℥j. is ordered to be used three times a day for four or five days. The accommodation being thoroughly paralysed, the defect in refraction is accurately neutralised, whether it be simple hypermetropia or complicated by astigmatism, vision being, if possible, made $= \frac{20}{20}$. The proper glass having been ascertained, is ordered be used at first for all purposes; but when the accommodation is restored only for near work, if the two eyes are alike, or nearly alike, a glass of the same description is given for both. If there is any considerable difference, a different glass is ordered for each.

There is one difficulty which patients complain of when first the accommodation returns—viz., that they have to hold objects too close. This is caused by inability to relax the accommodation, which the patient was before accustomed to strain to the utmost: he must be told to wear the glasses persistently, and in course of time all will come right. I have now carried out this plan of treatment for some two years, and with the most satisfactory results.

The second class includes many, if not all, of the cases of so-called "apparent asthenopia" of myops. The uneasiness, and in some instances severe pain, in these cases is most distressing to the patients. The asthenopia does not show itself until after the eyes have been constantly used on near work for some considerable period—often two or three years; but, when once it has manifested itself, it increases so as to preclude all possibility of the patient continuing work. The pain would appear to be due to irregular and spasmodic contraction of the ciliary muscle. As a rule, the patients are only slightly myopic—in fact, many of them do not complain of near sight at all, and have $V = \frac{20}{50}$ or $\frac{20}{40}$.

The treatment adopted is as follows:—Having diagnosed myopic astigmatism by the ophthalmoscope, the patient is ordered to use a strong solution of atropine, as detailed under the first class of cases. The accommodation being paralysed, the myopic astigmatism, with any existing myopia, is accurately neutralised, and the proper glasses ordered for all near work. If a proper correction is obtained, the result is most satisfactory both to the patient and the surgeon. If the asthenopia return, we may rest assured that the defect in refraction has not been accurately neutralised, and must be worked out again. In this plan of treatment by paralysis of the accommodation, it is interesting to notice how many cases of mixed astigmatism are met with, which, without the use of atropine, appear to be cases of simple myopic astigmatism both by examination with the ophthalmoscope and by trial with lenses—showing that a certain tonic contraction of the ciliary muscle must exist, sufficient to mask in some instances even a considerable amount of hypermetropia.

Subjoined are notes of a few illustrative cases:—

*Case* 1.—*Extreme Hypermetropia.*

G. W., aged 25. Eyes have always been troublesome; has had many different glasses ordered, all of which gave relief for a time. Under atropine, $H = \frac{1}{6}$ diagnosed with ophthalmoscope, and also by means of convex lenses. Right eye with convex $\frac{1}{6} V = \frac{12}{12}$. Left eye extremely amblyopic; most improved by $+ \frac{\text{cyl. } 18}{\text{sph. } 6}$. Ordered convex $\frac{1}{6}$ for both eyes. Seen four months later, could read or do any kind of near work for any time without the least inconvenience. The left eye had somewhat improved.

*Case* 2.—*Extreme Hypermetropia.*

Edwin T., aged 9. Has always been thought to be near-sighted; has learned to read, but with great difficulty, and by holding print close to the eyes. Can make out Snellen $6\frac{1}{2}$ at about four inches with either eye. Extreme hypermetropia diagnosed with ophthalmoscope. Under atropine, hypermetropia $\frac{1}{6} V = \frac{15}{30}$ not improved beyond by any lens. When seen a fortnight later, could read Snellen 2 at about eighteen inches without difficulty. Ordered to use convex $\frac{1}{6}$ for all purposes for six months, and then to report himself.

*Case* 3.—*High Degree of Hypermetropia.*

S. K., needlewoman. Always had more or less difficulty in doing near work. Has worn glasses, but they never appeared to suit. Under atropine right eye $V = \frac{20}{100}$ c. $+ 9$ $V = \frac{20}{30}$; left eye $V = \frac{20}{70}$ c. $+ 14$ $V = \frac{20}{20}$. Ordered to use convex 12 for both eyes. Seen two months later, could do near work for any time, and read small print (S. $1\frac{1}{2}$) easily.

*Case* 4.—*Compound Myopic Astigmatism—Much Asthenopia.*

William L., aged 23, a compositor. Has suffered from more or less pain in eyeballs and forehead for some years. Pain much increased by close application to his work. Has worn glasses, and had them frequently changed, but without relief. With the ophthalmoscope, myopia in the left eye, with myopia and astigmatism in the right, were diagnosed. Left eye with concave $= \frac{1}{30}$ $V = \frac{15}{15}$; right eye under atropine with concave $\frac{\text{cyl. } 30}{\text{sph. } 9}$ $V = \frac{15}{15}$. Ordered $-30$ for left eye, $-\frac{\text{cyl. } 30}{\text{sph. } 9}$ for right eye—to be used for near work, and also for going about, if he likes. Seen six weeks later, says his eyes have not been so comfortable for years.

*Case* 5.—*Compound Myopic Astigmatism—Much Asthenopia.*

Elizabeth B., aged 18, a bookfolder. Suffers great pain, more especially at night, in eyeballs and forehead, getting gradually worse for the last eighteen months. Is slightly near-sighted. Both eyes under atropine—Left, with concave, $\frac{\text{cyl. } 40}{\text{sph. } 36}$ $V = \frac{15}{15}$; right, with concave, $\frac{\text{cyl. } 60}{\text{sph. } 40}$ $V = \frac{15}{15}$. The pain was so completely removed by the atropine and rest that this patient objected to wearing glasses. Accordingly, none were ordered,

and her eyes will no doubt become as bad as ever in the course of a few weeks.

*Case* 6.—*Compound Myopic Astigmatism.*

Emma S., aged 23, needlewoman. Has suffered for some time from much pain in forehead over left eye and in left temple; pain always worse after doing near work. Right eye emmetropic; left eye under atropine, $V = \frac{20}{200}$ with concave $\frac{\text{cyl. } 36}{\text{sph. } 36}$ $V = \frac{20}{20}$. Ordered to use this glass for left eye, and plain glass for right. Seen three weeks later; could work for any time without inconvenience.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## UNIVERSITY COLLEGE HOSPITAL.

### FRACTURE OF BODY OF SIXTH CERVICAL VERTEBRA—COMPRESSION OF CORD—PARALYSIS OF MUSCLES SUPPLIED BY PART OF BRACHIAL PLEXUS—PLEURISY, WITH EFFUSION—DEATH FROM EXHAUSTION AND ASPHYXIA.

(Under the care of Mr. BERKELEY HILL.)

George S., aged 23, carpenter, was admitted on December 20, 1873. At half-past six in the evening of that day, patient was in the act of conveying a heavy box upstairs, and on the third step from the bottom fell backwards, striking, as he thinks, the upper part of his neck and the back of his head. He was brought to the hospital at seven o'clock.

The following is a report of his condition soon after admission:—Lies on back, and takes no notice of anything round him, but can easily be aroused. Face cool. Pulse small, but compressible. Skin of right upper limb and of right side of chest markedly cooler than that of left. Temperature of left lower limb higher than is natural—much higher than that of right. Can raise both arms, bring them across in front of him, and bend and extend the forearm, but cannot grasp at all; can extend wrist a very little. Can move the right leg, but there is some loss of power. Has no power over left leg at all. Sensation entirely lost in right leg and on right half of trunk as far as about the level of the nipple. Sensation normal in left leg. Says arms and hands feel numb; can feel the prick of a needle. No irregularity can be felt along spines of vertebræ. Has pain at lower part of back of neck and between shoulders. Says he feels as if his neck were coming off. Breathing 13 per minute, almost entirely diaphragmatic; lower ribs appear to move slightly, but upper ones are not raised at all in inspiration, while upper half of chest falls in. There is great rigidity of muscles at back of neck; can rotate the head slightly. Some amount of priapism. Fæces appear to have passed involuntarily.

December 21.—Patient says that one hour ago he could move his right leg, but now cannot at all; can now feel the prick of a pin in it. Sensation remains in the left leg, but less acute than it was last night. Intercostals do not act, and upper part of chest falls in during inspiration. Sensation and power remain about the same in upper limbs. Has no power to expectorate, while bronchial tubes are apparently loaded with mucus; feels as though he should choke; pain remains about the same. Has not passed any fæces.

22nd.—Patient, when first seen by the registrar, Mr. Godlee (to whom we are indebted for these notes), was in a recumbent position, breathing entirely diaphragmatic, and considerably cyanotic. There was evidently a considerable collection of mucus in the trachea and bronchi. Skin very hot; equally so on both sides, moist. Temperature in both axillæ, 102·3°; pulse 96, rather hard and bounding. There is complete paralysis of the lower ribs, of apparently all the intercostals, and of various branches of the brachial plexus, as follows:—The deltoid, biceps, brachialis anticus, and triceps all act, though the biceps only feebly. In the forearm, supination and extension of the wrist and fingers are apparently complete; pronation can only be conducted so far as to bring the thumb upwards, probably performed by the supinator longus. Flexion of the wrist is very imperfect, and is apparently performed by the flexor carpi ulnaris only. Flexion of the fingers is altogether absent—that is to say, the function of the median nerve is perhaps abolished, that of the musculo-spiral, musculo-cutaneous, and ulnar more or less complete. There is power in the muscles of the neck. There is complete retention of urine; the bowels acted slightly yesterday, to-day not at all. There is no absolute loss of sensibility anywhere, but in the legs it is decidedly less than natural, the deficiency increasing downwards, so that on the dorsum of each foot, though he can localise firm pressure, he scarcely feels a prick with the tips of the nails. He complains of scarcely any pain, but there is a little tenderness opposite the middle and lower cervical vertebræ and in left shoulder. At eleven o'clock his body was gently raised and propped up at about an angle of 25° from the horizontal, when he expressed himself relieved from the suffocation produced by the mucus; however, the cyanosis is markedly increasing. Catheter tied in and arranged as a syphon, with a vessel placed underneath the bed. Urine coming by no means freely.

23rd.—Yesterday afternoon, about 3 p.m., three ounces of blood were taken from the arm, as choking appeared imminent. Artificial coughing was also practised by compressing the chest-walls and abdomen simultaneously with the effort of the patient; this gave him great relief. The loud rhonchal fremitus felt in the morning disappearing. Urine acid, sp. gr. 1027; no albumen; a very little ropy mucus; rather high-coloured. Bowels not having acted since the day before yesterday, enema administered. Tourniquets were also applied to the femorals alternately, with a view to reducing the amount of blood in circulation. The artificial coughing was continued through the night. He slept for half an hour at a time. This morning he seems more comfortable than yesterday; much less cyanosis. Breathing quiet, 32 per minute; skin moist; temperature 101°; tongue clean; abdomen not distended; urine still acid. There is no improvement in the paralysis or in the numbed sensation of the limbs and body. Catheter taken out and passed every two hours. 4 p.m.: Urine acid, but more mucus observable.

24th.—The patient was sick last night very frequently, but feels somewhat more settled to-day. Cyanosis almost disappeared, and breathing easier. Temperature this morning at 6.30 a.m., 102·2°; pulse 82. Temperature, 11 a.m., 102·6°; pulse 80, rather irregular. Feverish and thirsty; seems frequently half-choked by phlegm, which, however, he is able to get rid of by the artificial coughing. Urine acid on passing, with no albumen. Abdomen quite as tympanitic as before. No change in paralysis. 3.15 p.m.: Both feet distinctly and much inverted, apparently from excessive relaxation of peroneal muscles. Some œdema of both feet, especially the right. Interrupted current applied to peronei longi shows that the irritability on right side is less than that on left. The irritability of tibiales antici is almost equal. The current applied over the course of peroneal nerve shows a distinct deficiency of irritability on the right side. Optic discs examined: veins large and dark; no optic neuritis. Pain in left shoulder increasing. Pupils small and equal. Catheter tied in as before, by Mr. Hill's orders.

25th.—Temperature, 5 a.m., 101°; at 11 a.m. 101°, pulse 80; temperature at 10 p.m. 101·3°. Urine acid; no albumen; light-coloured; ropy mucus. Enema. Has been sick often through the night after anything that he has taken. The tympanites is now very considerable. Pulse quiet; skin moist. No increase of œdema in feet, which retain the same inverted position. No alteration in paralysis.

26th.—11 a.m.: Temperature 100°; pulse 84. Galvanism applied; one sponge at anus, the other over abdomen. Flatus escaped four or five times; distension of abdomen less; breathing easier. Has not been sick since morning.

27th.—Temperature, 6 a.m., 102°; pulse at 11 a.m. 72, respirations 32. Temperature at 6.40 p.m. 101°. Incoherent in his talk: this state of things began on the night of the 25th. Was sensible yesterday, but incoherency came on during the night, and continues this morning. Tympanites relieved by galvanism. No vomiting since the morning of the 25th. Irritability of left peroneus longus greater than on the right side—as per battery register, $11\frac{1}{2}$ to 6; peroneal nerves about equal. Patient had a slight rigor at 6.30, but has not been sick. Urine acid; no albumen; small quantity of mucus.

29th.—Temperature at 10.30, 99·9°; at 12, 99·4°; pulse at 10.30, 64; respirations 32. Patient was not sick at all yesterday, and feels better this morning; was not galvanised yesterday. Was moved this morning for the purpose of putting clean sheets on the bed, and suffered a good deal of pain in

the neck during the process. The left foot has now assumed the natural position of rest—viz., slight eversion. The position of the right is unaltered. The sensibility is distinctly less in the right foot than in the left; in the latter the power of localising sensation is pretty complete, in the former very imperfect. Pulse and respiration still quiet. Sputa as before, muco-purulent; power of coughing increases. Paralysis of arms no less; pain in neck more severe; bowels acted twice without assistance yesterday and this morning; no cyanosis now; odour of patient peculiar and fetid; urine acid.

30th.—Temperature 99·4°; pulse 64, rather feeble; respirations 32. Bowels open; passed some flatus this morning. No distension of abdomen; no change in position of feet, nor any in degree of paralysis in feet. He appears to have lost all extension movement in arms, and flexion muscles assume some rigidity on passive extension. Urine acid; no albumen. Tongue furred and dirty; appetite good; sleep pretty good, considering the frequent interruptions.

January 1, 1874.—Urine: Yesterday morning, as the catheter had not been acting, a full beaker of urine was obtained immediately it was passed. It was acid to test-paper, and had a faintly disagreeable smell. On microscopical examination, it was found to teem with motionless bacteria of large size. Besides that, there were a considerable number of pus corpuscles. It was slightly turbid. Temperature 100·4°; pulse 72. This morning the man's condition is much the same as yesterday—namely, there is no increase or diminution in the paralysis. The left foot is now everted, and carries with it the leg, producing rotation outwards of the thigh. The right foot is still strongly inverted, producing a corresponding rotation inwards of the thigh. The arms, if left alone, assume a flexed position, the elbows being raised, and the hands touching the shoulders. The patient is emaciating rapidly. His skin is dry and rough, and he gives off an odour that is peculiarly disagreeable. His cough is becoming less troublesome; pulse still full, and fairly strong; tongue furred. Temperature 101·2°; pulse 76; respiration 36. Urine still acid; not so thick as yesterday.

2nd.—Skin dry and hot; temperature 101·4°; pulse 64, very strong and hard. Sleep much disturbed last night by coughing. Bowels open, but tongue dirty; has not been sick. Urine acid, and somewhat clearer; not so much mucus. No change in paralysis. Galvanism applied as before. Distension of abdomen decreased. Emaciation continues.

3rd.—Foot inverted again, though not quite so much as before. Temperature 100·4°. Bowels open; smell of the patient most disagreeable. Slept somewhat better last night, and looks more lively this morning. Artificial coughing still has to be kept up, though he is much better able than before to expel the mucus.

5th.—On Saturday afternoon the patient passed a motion just as Mr. Hill made his round in the afternoon, and said that, for the first time since his accident, he was conscious of passing it—*i.e.*, actually felt the fæces passing. This morning he is not so feverish—temperature 99·2°,—but seems more uncomfortable. For the first time since admission he was regularly lifted off his bed while it was made comfortable. His left foot has again become everted, though not absolutely, and his left knee slightly flexed; in the latter he has sensation of pain. His bowels have been open this morning, but his smell is still abominable, though he is in his clean bed—even worse than before. He reports that during the last week he has been subject to occasional twitchings of his lower limbs. When this began he finds it impossible to specify; but on last Tuesday being suggested to him, he states that that was about the right day. His urine is still tolerably clear, acid, with a faintly disagreeable smell. The catheter was taken out this morning, cleaned, and replaced. He has a very small attempt at a bedsore, half-way down the left side; otherwise his skin is perfectly whole.

7th.—Both feet extremely inverted to-day. Patient complains of great pain over his left shoulder. Left wrist and elbow and fingers are all in the position of extreme flexion.

8th.—Much difficulty in bringing up the mucus. Patient feels much more difficulty in breathing. Left leg is quite straight this morning; right leg extremely inverted. Early this morning the house-surgeon was called up on account of the patient's extreme difficulty in breathing.

9th.—Faradisation was applied by means of one pole up the rectum and the other over the surface of the abdomen. The patient has much more difficulty in getting up the phlegm, even with the assistance of artificial coughing. Both feet in position of extreme inversion.

10th.—Both legs extremely inverted. Complains of his legs "jumping" frequently in the day and night; no twitchings of the arms. Temperature 103·4°; respirations 32; pulse 72.

13th.—When the catheter is out, the urine runs away involuntarily. Temperature 102·2°. No change in paralysis, but emaciation becoming more and more prominent. Tongue so dry that it cracks and bleeds. Urine is still acid, fairly clear, and of only faintly nasty smell. Some roughness of skin can be felt on the back (about the middle), which feels something like a coming bedsore.

14th.—Patient died at a quarter-past seven yesterday evening.

*Post-mortem, twenty hours after Death.*—The head was first opened, and the brain was found pale and anæmic, and excess of fluid under the arachnoid. Nothing abnormal to the naked eye about the brain. On cutting down on the spine it was thought that the sixth cervical vertebra was more movable than natural. The spines of the vertebræ were removed; there was no blood outside the dura mater, unless perhaps a little in the lumbar region; there was some extravasation in the muscles of the lower cervical region. On removing the spinal cord it was seen that there was a prominence opposite the sixth cervical vertebra, which proved to be caused by the splitting of this vertebra in a vertical direction. The neural arch is split obliquely and on the left side behind the transverse process. On slitting up the dura mater, no blood was found between the membranes; there was a distinct depression of the spinal cord opposite the projection mentioned. The veins below this point were much gorged; those above it of natural size. On cutting the cord transversely at seat of injury, it was found to be very soft and pulpy; a narrow line of extravasation ran from the anterior course of left side obliquely forwards and outwards. Above and below the seat of injury the cord presented a natural appearance, except in lower dorsal region, where it was soft. The fourth, fifth, sixth, and seventh vertebræ were then removed, and it was found that the lower part of the body of the sixth and the intervertebral substance between that and the seventh were impacted one into the other. Before opening the chest the left side was seen to be greatly bulged, and on opening it the left pleura was found to be entirely filled with slight opaque yellowish serum, containing flakes of recent lymph. The left lung was completely collapsed, and coated with a layer of lymph; it presented no sign of pneumonia. There was no fluid in the right pleura. The right lung was somewhat congested, but presented no sign of pneumonia. Heart was rather large, and substance pale. Liver weighed 88 oz.; appearance normal, except that it was considerably congested. Spleen very soft, large, dark red colour; weight 18 oz. Right kidney congested and of rather large size; weight not taken. Left kidney: Pelvis much dilated, not inflamed—in fact, a good example of a sacculated kidney; kidney-substance being in some places not more than one-eighth of an inch in thickness, in others as much as an inch. Left ureter much dilated—large enough to admit the forefinger. Just behind the bladder a hard lump was felt, which proved to be a calculus of spindle-shape, of black colour, with an accumulated yellow tip directed upwards; on it were one or two minute prominences; round it the ureter lay with a sharp turn, and was probably pretty completely obstructed. Bladder showed signs of recent subacute cystitis. On the right thigh were two deep sloughs on the inner and outer sides, probably caused by the tourniquet which was applied on his first day in the hospital.

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We regret to hear that Mr. Baker, a surgeon, of Junction-road, Holloway, died on Sunday morning from the effects of a dose of carbolic acid taken, by mistake, a short time previously, for a composing draught.

Society of Apothecaries *v.* Anderton.—A penalty of £20, and costs amounting to £5 1s. 6d., have been recovered through the Halifax County Court from the defendant, a homœopathic chemist in Halifax, for illegally practising as an apothecary. This Mr. Anderton, some few years ago, was in business as a grocer in Halifax, and is, or was until quite lately, in some way connected with Mr. Ainley, the Medical Officer of Health for the borough of Halifax. The bills for Mr. Anderton's attendance were sent out in Mr. Ainley's name.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

# Medical Times and Gazette.

SATURDAY, JULY 4, 1874.


## MODERN MIDWIFERY.—No. I.

Three books (a) are before us, of which it is our purpose to give some account, and therewith a few observations on the modern practice of midwifery, as they describe it. Clay's is an old favourite for practitioners, and we need only say of it that it consists of practical precepts arranged alphabetically. Its author can fall back upon the experience of more than fifty years' good service. Carter's translation of the third edition of Schrooder's "Handbook" enters fully, as a book for students should do, into the scientific basis of the art. It is very closely written, and would, we think, be much more pleasant to read were the engravings profusely multiplied in the next edition. Leishman's is a larger work, much easier to read, pretty fully illustrated, and containing, as a "system" should do, a sketch of the history of obstetricy from Hippocrates and Ambroise Paré to Barnes and Matthews Duncan. But there are very many points of scientific nature which Schroeder treats more fully than Leishman, and others in which Leishman excels Schroeder. Each book is good, and the well-furnished library will have both.

We notice that both Schroeder and Leishman are at pains to vindicate the position and existence of Midwifery as a branch of medical science and practice. Some of our younger readers perhaps may think such vindication superfluous; but practical men know very well that arguments against making midwifery a branch of medical practice, exploded as they have been again and again, yet come up from time to time in "society," and are gravely produced in the House of Commons by the men to whom the making of laws, and often indirectly the comfort and interests of the medical profession, are entrusted. It is of no use to treat opinions as unworthy of notice if they are held by respectable M.P.'s.

The questions to which we refer are—Ought there to be any need for an art of midwifery? if so, Ought it to be practised by men?

Now, the student must be prepared for hearing it asserted, and that in high quarters, that midwifery deals with a "natural" process which really needs no interference. "It seems on first sight," says Leishman, "a paradox that the practice of midwifery should involve in the human species the supervision of a function which is purely physiological." To this the answer may be conclusive. None of the works of nature, though perfect in idea, do come up to that ideal. To call a process natural is to admit that it is subject to the occasional imperfections of all created things. The physician, therefore, should be at hand to watch, and to interfere and rectify if necessary. Every other physiological function requires rectification at times.

But besides, to use the words of Schroeder, "although the puerperal state be a physiological one, yet it must be admitted that it differs greatly from other physiological conditions, and that we find changes occurring there which in other circumstances would be called pathological." The whole of generation involves processes which are the types of disease. The act of menstruation closely abuts upon inflammation, abscess, and ulceration of the ovary, and hæmorrhage. Does Simon require a term to express the change which a living cancer-cell impresses upon the tissues into which it may have been engrafted, he finds it in the action of the spermatic cell upon the ovum. "The acute degeneration of the uterine substance after parturition is a process which under other conditions," says Schroeder, "would be considered undoubtedly pathological. This is still more the case in the change which is going on upon the inner surface of the uterus"; for the exfoliation that goes on of such portion of mucous membrane as is left, and "the abundant proliferation of new cells, and the pouring out of serous exudation, is a state which is usually designated as catarrhal inflammation. Then again," continues Schroeder, "the occlusion by thrombosis of the patulous openings of the internal vessels, is a process standing alone and quite exceptional in physiology." Delivery further is accompanied by an elevation of temperature which under other circumstances would be called fever. During labour the temperature "may rise to 39° C., or 102·2° Fahr., or more, without there being any pathological change to account for it." There is a daily evening rise and morning fall in parturient women, as in other persons, but the elevation caused by the rapid metamorphosis of the uterus, though checked by the usually profuse perspiration, and by the discharges of the milk and lochia, is yet great for a natural process.

Before a student invests the most precious years of his youth and his capital in the study of any art, it is worth consideration whether that art is worth studying, and whether the practice of it is likely to be permanent and remunerative. Shall men be excluded from the lying-in chamber, or be resorted to only in urgent need? Leishman answers this question with great good sense. To call in men in dangerous cases only "would be of no value whatever, as without a knowledge of the healthy or normal standard, which can only be attained by the constant observation of the natural process, ignorance, not skill, would be called upon to act. To the full as rational to ask him to compute distance or space, who had no knowledge of the standards of lineal measurement or capacity."

We may therefore affirm that midwifery is not a mere

(a) "The Complete Handbook of Obstetric Surgery; or, Short Rules of Practice in every Emergency, from the Simplest to the most Formidable Operations connected with the Science of Obstetricy." By Charles Clay, M.D., late Senior Surgeon and Professor of Midwifery, St. Mary's Hospital, Manchester. Third Edition. London. 1874.

"A Manual of Midwifery, including the Pathology of Pregnancy and the Puerperal State." By Dr. Karl Schroeder, Professor of Midwifery, and Director of the Lying-in Institution in the University of Erlangen. Translated into English from the Third German Edition by Charles H. Carter, B.A., M.D., B.S. Lond., M.R.C.P., Physician-Accoucheur to St. George's, Hanover-square, Dispensary. With twenty-six engravings on wood. London. 1873. 8vo. Pp. 388.

"A System of Midwifery, including the Diseases of Pregnancy and the Puerperal State." By William Leishman, M.D., Regius Professor of Midwifery in the University of Glasgow, etc. Glasgow. 1873. 8vo. Pp. 835.

system of practical rules that any average woman is competent to apply, but that it involves an acquaintance with, and supplies illustrations of, the whole of medical science and practice. It is connected with every department of medicine and the allied sciences, from the humblest knowledge of remedies to the highest flights of what used to be called transcendental anatomy and physiology.

Many years ago the question was debated, whether the "great pains and perils of childbirth" were not inflicted on woman as a divinely ordained punishment. This question it is not our place to answer. But if they be, it is only one argument the more for alleviating them, as we try to do all other consequences of transgression. It was further held that there was a difference between women and the lower animals, and that women alone undergo "pains and perils," whilst parturient animals accomplish their task in speed and safety. We are glad to see that, in order to solve this question, Leishman introduces the student to the development and structure of the pelvis in the whole of the mammalia. This is as it should be. No branch of physiology or of the healing art can be complete which regards man alone. But we are sorry to see that Leishman starts with an assumption which perpetuates what we venture to think the old error, and which seems to us at variance with the very facts of comparative anatomy which he appeals to. In fact, Leishman follows Osborn and others of the older writers in maintaining that "there exist in the human species conditions which exercise, as compared with the lower animals, a special influence upon the progress and issue of labour. . . . By a comparison of the human race with those of the mammalia which stand nearest to it in the scale, we shall be able to show that the process of childbirth must be more difficult and more obnoxious to serious hindrance than in any—even the highest—of the other mammalia." Now, as we have said before, the comparison of the pelves of the whole animal kingdom is a most laudable and useful study; but we venture to think, first, that this comparison of pelves shows the human female to be as well equipped by the Creator for easy parturition as any other female animal whatever; and secondly, as a matter of fact, that the human female, *cæteris paribus*, does not suffer more in parturition than the female of any other animal; and lastly, that there is no evidence to show that the lower races of mankind—as the negro—pass through childbirth more easily than the higher races.

With regard to the pelvis, let any student walk into the Hunterian Museum, or any good osteological museum, and take a careful survey of this part of the animal framework, and endeavour to make a scale of pelves. In such a scale the simple rudiments—or no rudiments—in the snake or in the cetacea, the imperfect pelves of larks and other birds with slender legs and powerful wings, and the ill-developed pelvis of the mole, will occupy the lower end; whilst the massive pelves of the crocodile, of the ostrich, or dinornis, or other so-called wingless bird, and, above all, of the megatherium or extinct gigantic sloth, will be at the other. Such a survey makes it evident that the size and weight of the pelvis do not depend on general position in the animal kingdom, for chelonia and saurians, as to pelvis, rank above birds. But they depend on one thing, and one only, and that is the size of the lower limbs, the weight they have to bear, and the work they have to do. The best illustration of this is the mole. This animal does the main business of life by the upper limbs; hence these with their vertebral arch are enormously developed in proportion to the legs, which have little to do, and are supported by a dwarfed pelvis. The doctrine that the true relation of the pelvic arch is locomotive or mechanical is well put by Leishman when he says, "The pelvis, in the various groups into which the mammalia have been divided, is formed so as to suit the requirements of the individual. The mode of locomotion, be it leaping, running, or swimming, is revealed to the anatomist by an examination of the pelvic bones; and in every case it will be seen that the preponderance of ischium, ilium, or pubes is due to the necessity which exists for certain mechanical arrangements, by which alone can the required muscular power be applied to the bony levers. The pelvis is also," continues Leishman, "an efficient support to those organs which are usually contained within it, and especially to those which are connected with the function of generation."

It is quite true that the pelvic arch gives, besides, a support and a localised spot for the cloaca, in its three divisions—fæcal, generative, and urinary,—but it is equally true that its real significance is locomotive. In the mole the generative and urinary organs are outside the pelvic cavity, such as it is.

So far, then, the ground is clear. The pelvis is, in its true conception, the basis of the mechanism of the lower limbs. But yet the obstetrician must look at it from a limited and special point of view, as "the osseous canal through which the product of conception must pass in the act of parturition." And here we venture to repeat what we said above, that the human pelvis, whilst admirably supplying the support of the viscera and the basis of muscular action needed for the erect posture, is yet the most favourably constructed for easy parturition.

Taking the mammalian series generally, the pelvis is a long, narrow, angular passage. Leishman, who teaches that the pelvis of the human female is less favourable for parturition (regarding the pelvis of animals), speaks of the "ever watchful provision by nature of means to an end," and describes "the irrefragable evidence afforded that the pelvis is designed with a direct reference to the propagation of the species." This evidence consists in the difference between the male and female pelvis in some animals, but, besides, in "certain modifications of structure which occur on the approach of labour, and clearly prove that nature prepares the parts for their new function." This modification consists in the softening and elongation of the pelvic ligaments, which occurs notably in the guinea-pig and cow, and without which "the difficulties of labour which occasionally arise" in these animals would be much more frequent.

Now, the softening of the pelvic ligaments, and separation of the bones, doubtless exist in some parturient women, and give them, in a certain degree, one advantage possessed by the lower animals. But, besides, the human female pelvis, compared with that of apes, is less deep, the symphysis pubis is shorter, and the sub-pubic arch so fully developed, that the difficulties arising from the curve of the pelvic axis, and from the firm floor for the abdominal viscera afforded by the pelvic muscles and ligaments, are more than compensated for. Hence we venture to conclude that, so far as the structure of the pelvis is concerned, parturition is as easy in women as in animals.

In the next place, leaving the osteological museum, and drawing our argument from the bedside, it is notorious that in women who have had one or two children, the child's head may be propelled through the pelvis with one "pain" and one only. Six, eight, or ten hours may have been spent in the dilatation of the os uteri, but that once effected, the whole pelvic canal may be, and often is, cleared in two minutes. So that the well-formed pelvis offers no obstacle to the well-formed head.

Moreover, the clinical examination of parturient animals shows the popular notion of the absolute ease of the process to be a mistake. In days when there were cow-houses in London, we more than once witnessed the parturition of cows, besides that of the other domestic animals; and this we advise the student not to neglect. There is no parturient animal who does not usually show premonitory uneasiness; and during the

expulsive efforts the cow groans, and stands uneasily first on one leg then on the other, to get ease by shifting the posture.

Lastly, as regards the alleged facility of parturition in animals and the lower tribes of men, there is, as Leishman well puts it, "a wide field for original investigation." In other words, we know very little about it. What we know of the frequency of vesico-vaginal fistula amongst the coloured women in the United States, and of the cases that come under European practitioners in India and the Colonies, makes us doubt it.(b) Here for the present we must close our remarks on this interesting subject.

## MISS JEX-BLAKE *v.* THE UNIVERSITY OF EDINBURGH.

We are told nowadays that the intellect knows not sex, and even the idea that sex can influence or differentiate intellect is repudiated with indignation and scorn. Yet we dare to suspect that it is decidedly more difficult to a woman than to a man to understand and appreciate the truthfulness and the force of the saying, "Speech is silvern, but silence is golden"; and we venture to suggest this as the excuse for the letter from Miss Jex-Blake which appeared in the *Times* of June 20. Allusion having been made in a leader in the *Times* to the fact that one of the lady-students, "who had rendered herself most conspicuous," had after all failed in the medical examinations at the University of Edinburgh, Mrs. Thorne, a friend and former fellow-student of Miss Jex-Blake's, wrote to the editor, putting the cap on that lady's head, and explaining that she had so entirely devoted her time and energies to the interests of her fellow-students, that the "preparation for her examination became in consequence a secondary consideration," and that hence it was "not surprising that she failed to satisfy the examiners." Miss Jex-Blake, however, altogether repudiates her friend's explanation, and says, "I think it due to myself to state that my preparation for the examination in question was "not made secondary to any other object whatever, but was, on the contrary, as I still believe, thoroughly adequate"; and, further than this, she goes on to say, "my success in answering the papers set was, at any rate, not less than that which had in previous years enabled me, as Mrs. Thorne truly asserts, to obtain a place in the prize-lists (after examinations generally considered more difficult), in every one of the subjects in question." She speaks of her failure only as an "alleged failure," and she insinuates, to say the least, that the verdict of the examiners was an unjust one; but "as I found," she says, "that the examiners were practically quite irresponsible except to a court of law, I resolved, after much consideration at the time, to take no steps whatever with a view to my own vindication." We know that that vain and poorer creature man not unfrequently believes, or affects to believe, when he fails to pass an examination, that his failure is due to the incapacity, ignorance, or prejudice of his examiners, but we are grieved to find that the "fairer" sex not only share this weakness, but can be guilty of the much greater weakness of making that weakness public. It could not be expected, we suppose, that Miss Jex-Blake could deign to submit her letter to the judgment of any man before sending it to the *Times;* but we think that even men who are fighting most earnestly and enthusiastically, not only for the "higher education," but also for the medical education of women, would have pointed out to her the impolicy and injudiciousness of making such a statement public. Miss Jex-Blake has, of course, been answered by the examiners before whom she appeared. It was hardly possible for them, in justice to the University of Edinburgh, to allow her letter to pass without notice. They say—"The subjects of examination were chemistry, botany, and natural history. Her papers were most carefully examined by six examiners (three of whom were professors), and they unanimously agreed that the answers were extremely defective on every subject"; and they add that her papers were perused by one of their colleagues (not a member of the Board of Examiners), and that he was "satisfied that the examiners did no more than their imperative duty." And this is not all. One of the Board of Examiners (Professor Wyville Thompson, the Professor of Natural History) is away with the *Challenger* scientific expedition, and in his defence a friend of his, "acting under licence," states that in 1872 a friend of Miss Jex-Blake showed to Professor Huxley "what she described as that lady's examination papers," and asked for his opinion of them. Now, Professor Huxley certainly cannot be suspected of entertaining any prejudices hostile to Miss Jex-Blake; but what was his judgment? "He read the natural history paper, and had no hesitation in confirming Professor Wyville Thompson's judgment; and he thought he succeeded in satisfying Miss Jex-Blake's friend that the examination in natural history, at any rate, had been fairly conducted." And most probably he added *Ex uno disce omnes*, or arguments to that effect. But in vain. Miss Jex-Blake manfully—we beg her pardon, sensibly—kept silence, though no doubt it was pain and grief to her, for two years. But—

> "He that complies against his will
> Is of his own opinion still."

In spite of the extreme improbability that a board of examiners had agreed to do her injustice, and in spite of Professor Huxley's judgment, Miss Jex-Blake remained of her own opinion to the contrary, and, stung by the kindly-meant suggestion that she had committed the not uncommon error of over-estimating her fitness for the examination in question, she fell into the far greater, and happily less common, mistake of publishing that opinion to the world in the columns of the *Times*. We trust for her own sake that Miss Jex-Blake recognises her mistake, regrets it, and will accept its teachings as a part of her "higher education."

## NURSES FOR THE SICK POOR.

On Thursday, last week, two important meetings were held in London for the purpose of training and providing for a body of nurses for the sick poor in London. Even those who have no practical knowledge of the difficulties of treating serious disease in the homes of the labouring classes, can imagine in some degree the value of the presence and help of a well-trained nurse at such times, but all who work in any capacity—as medical men, ministers of religion, or visitors—among our poor know that such assistants would be simply invaluable, and that not only as skilled attendants on the sick, but also as teachers of sanitary measures. One meeting, held at Willis's Rooms, had for its object the establishment of an association, "in accordance with the suggestions of a committee of the Order of St. John of Jerusalem, for training and providing a body of nurses" for the sick poor in London and the provinces. Last year the Council of the Order of St. John of Jerusalem in England formed a committee for the purpose of considering how trained nurses could be provided for the sick poor, and this committee took no little trouble to inquire into the organisation and experience of the various nurse-training institutions in London and the country. The results of their inquiries were considered by the committee and a medical sub-committee, and then a report was published, embodying a *précis* of the information obtained, certain conclusions drawn from it, and the report of the medical sub-committee, which had been adopted by the General Committee of the Order. Finally, the meeting in question was called for the purpose of obtaining the sympathy and support of the general public for the object the Order have at heart, and resulted in the formation of "The

(b) See art. "Parturition," by Rigby, and "Pelvis," by John Wood, in Todd's Cyclopædia.

National Association for Providing Trained Nurses for the Sick Poor." The Association is to establish "a home where nurses in training at the London hospitals, or employed as district nurses, may lodge, and where a register of trained nurses requiring employment may be kept." They propose to invite the co-operation of existing nurse-training institutions, so as "to promote a community of interests and action;" and the Order of St. John hopes eventually not only to provide a large body of trained nurses for the sick poor, but also to establish a scale of rewards for the nurses, according to their merits and period of service, and a system of pensions for old and invalided nurses. The whole scheme is a very wide one, and embraces, besides training in nursing work, an elementary education of an industrial character, and education in "habits of order and discipline, cleanliness, and truthfulness." We need not say that this Association has our warm sympathy and good wishes, for if it succeeds in its work it will do immense good. But looking at the rapidly increasing demands for skilled nurses by those who can pay well for their services, and in hospitals, and the increasing wages that can be commanded for domestic service by the classes from whom nurses for the sick poor must be recruited, most especially by any of them who have been "educated in habits of order and discipline, cleanliness, and truthfulness,"—considering these facts, it is certain that the Association will require very considerable resources to enable it to carry out its objects at all widely and efficiently. We trust that it will succeed in obtaining the sympathy of the general public; and it will, we hope, derive powerful aid from a society formed at the same time, at a meeting held at Grosvenor House. This Society is formed on broadly based rules, "for the purpose of granting annuities to worn-out trained nurses of at least fifteen years' service;" and the Duke of Westminster announced that it "would very likely be amalgamated with the National Association for the Provision of Trained Nurses." The two societies have a grand work of inestimable value before them, and deserve all the help our readers can in any way give them.

## THE WEEK.

### TOPICS OF THE DAY.

Sir William Jenner, Sir James Paget, Sir William Gull, Dr. Sieveking, Dr. Lowe, and Mr. Prescott Hewett, were among those who had the honour of receiving invitations to the State Ball which was given at Buckingham Palace last week.

It is with much satisfaction that we have seen the announcement in the *Gazette* of the appointment of Dr. Fayrer as Physician-in-Ordinary to the Duke of Edinburgh. The reward is well merited in every way, and will give satisfaction to a large number of public servants, who will see in Dr. Fayrer's honour a recognition of their own services. Dr. Fayrer's acquaintance with the Duke is not of recent date, for he had the honour of attending his Royal Highness during the greater part of his visit to India.

In the very proper discharge of their duty, the Helmsley Rural Sanitary Authority charged, at the Kirbymoorside Police-court, Mr. Charles Lever, of Malton, with having exposed his apprentice, a youth, while suffering from a dangerous and infectious disease—viz., scarlet fever. The youth, it appeared, was ill, and was sent by his master from Malton to Gilling, and thence to Helmsley, by railway. Medical evidence proved the fever was fully developed and apparent to anyone of ordinary observation. For the defence it was submitted that there was no proof as required by law that the defendant was aware that the youth was suffering from any infectious disease, of which he denied all knowledge, and proved that the boy was at work that morning and did not then appear unwell. The magistrate said there was a doubt in his mind as to whether the defendant knew the nature of the complaint, and he should give him the benefit and dismiss the summons; but at the same time he considered it was a very proper case for investigation. This decision is scarcely, surely, consistent with the medical testimony brought forward, that "the fever was fully developed and apparent to anyone of ordinary observation." In the conflict of testimony in this case the magistrate had but one course to pursue—to give the supposed offender the benefit of the doubt; but surely such a defence should not be taken as a precedent. Scarlet fever in its premonitory symptoms can scarcely be mistaken by a competent medical practitioner. It was the manifest duty of the defendant in this case to have consulted his medical adviser before removing his apprentice. If sanitary laws are to have any effect their provisions must be strictly carried out, which they certainly were not in this instance.

The Council of the Social Science Association has presented a memorial to the President of the Local Government Board, praying for the periodical publication of an analysis of the air and water of large towns having a high density of population, for the purpose of detecting disease and suggesting what may be needful for the protection of public health and the prevention of the spread of contagious disease.

The joint report recently presented by Mr. Liddle and Dr. C. Meymott Tidy, to the Sanitary Committee of the Commissioners of Sewers of the City of London, upon slaughter-houses in the City, after a careful inspection of each slaughter-house by visits planned to take place at a time when slaughtering was being carried on, and when they were not expected, speaks with authority, distinctness, and confidence on this important subject. After entering with lengthened detail into the sites of the slaughter-houses—twenty-eight in number,—their defective arrangements for ventilation, drainage, cleanliness, and water-supply, they are decidedly of opinion that no private slaughter-houses should be allowed in the City of London, and that every effort should be made to bring about the establishment of public abattoirs. They urge cogent reasons why public slaughter-houses would be exceedingly desirable, and at the conclusion of their report they observe that they have no suggestions to offer respecting the improvement of the existing slaughter-houses. The powers of the Local Authority in regulating slaughter-houses are merely imaginary. The slaughter-houses in the City are, in their opinion, without exception altogether unfitted, both by construction and locality, for the purpose; and they most strongly recommend the Committee to take under their consideration the establishment, in appropriate places, of a sufficient number of public slaughter-houses or abattoirs. The marked success that has resulted wherever abattoirs have been erected, fully justifies them in strongly urging this as the only remedy for existing evils. One huge abattoir, as some have suggested, would, they are of opinion, be undesirable; but the establishment of a sufficient number of them would, judging from the experience of authorities gained elsewhere, be a great sanitary improvement, and would benefit all parties concerned, —not merely the public, and especially the poor, by providing them with better and cheaper meat, but the butchers as well. The present opposition of the trade is, they are convinced, dependent on a false prejudice and ignorance of the benefits which will accrue to them, as they have accrued to others, when the private slaughter-houses have given way to the abattoirs.

The report of the Aboo Lawrence School for the year ending March 31 last is of a most gratifying character. The institution was founded by Sir Henry Lawrence. The object of it is to provide for the orphans and other children of soldiers

serving, or having served, in Rajpootana and Western India, a refuge from the debilitating effects of a tropical climate and the demoralising influence of barrack life, and wherein a plain practical education may be obtained. The healthfulness of Mount Aboo is remarkable. The death-rate of children on the plains is, according to published sanitary reports some 91·49 per 1000. Amongst the Aboo Lawrence School children it has been 8·33 per 1000. Dr. Dudley, the medical officer in charge, reports that ague, as in former years, has been the prevalent disease. There were 146 per cent. admissions, but no mortality from this disease. An outbreak of small-pox took place in March, which was apparently imported by a girl who had just returned from Bombay, and who was the first seized with the disease. Eight cases occurred. The disease was of a mild type, and there was no mortality. Strict measures were adopted to prevent the disease spreading, all the children being revaccinated. The disease was thus stamped out before the end of the month. There were four cases of remittent fever on the cessation of the rains—a time when malaria prevails more than usual. Two of these cases proved fatal. The appearance of the children at the end of the year was remarkably healthy and robust.

The state of the River Liffey, Dublin, has been long a cause of sickness in that city; and the Corporation have at last resolved, we hear, in consequence of a communication from the Lord Lieutenant, to take immediate steps to remedy the evil.

It is somewhat astounding to hear that English surgeons and physicians are not allowed to practise their profession in Chili. It appears that the Dean of the Chilian Faculty of Medicine has refused to allow British physicians to practise, because "medical knowledge imparted in Great Britain was greatly inferior to that required before a degree of Doctor of Medicine could be obtained in Chili." The British Minister at Santiago has communicated with the Brazilian Government on the subject, and we shall await the result of his representations to it with some interest.

The great desirability of a uniform system being observed in the statistical returns of all medical officers of health has been long apparent. The importance of the subject has been fully felt by the Society of Medical Officers of Health, which, after much deliberation, has adopted the recommendations of of the Council:—

"The Society is unanimously of opinion that it is desirable the statistical returns of all medical officers of health in England and Wales should be based on a uniform system, and the following tables are put forth as skeleton models which may be, and it is hoped will be, adopted by all medical officers of health. The tables are no doubt susceptible of improvement; but their adoption in the present form is urged, as it is believed that any disadvantages they may possess are outweighed by the advantages, resulting from a uniform system which admits of the direct comparison of the statistical returns of two or more districts. It is not intended that these tables *only* should be used by medical officers of health, but that at least the information here sketched out may be given for all districts, and in the form here set forth. Other tables may be added at the discretion of medical officers of health. It is thought desirable, and asked, that—1. All statistical returns be made out to the end of the registration year, as defined in the Registrar-General's Reports (Dec. 31, or thereabouts). 2. That, merely for the sake of uniformity and convenience of compilation, the headings of columns for tables be as far as possible identical with those used in the Registrar-General's tables. 3. That the numbers of the tables adopted by the Society be in all cases appended to these tables when used; and that, to avoid confusion, different numbers be assigned to any other tables which it may be thought fit to insert in an annual report. The following explanations of the purport of the several tables may be of service:—Table I.: This table merely gives gross numbers, and the statistics of the year under notice and the ten preceding years, *when these are attainable*. Table II.: This is a table of death-rates, and of deaths (gross) in public institutions. It is, like Table I., also retrospective; and it is hoped that as many of the statistics of back years may be given as it is possible to obtain. Table III.: This is an abbreviated copy of the Registrar General's long table, which is deemed unnecessary to set out at full length. The 'etc. etc.,' below the word 'Syphilis,' at the bottom of the first column, means that the long list of diseases set out in the Registrar-General's table is to be inserted in *full*. Table IV.: This table relates to the year under notice only, and needs no further explanation. Table V.: This table is intended to afford a comparison of the mortality from the chief zymotic diseases of the year under notice with that of the antecedent years."

A practical and instructive plan for promoting a knowledge of sanitary science was lately adopted by Dr. Acland, the Regius Professor of Medicine, Oxford. With the view of demonstrating the sanitary condition, good and bad, of the cottages in the parish of Marsh Gibbon, near Lamton, Dr. Acland, with a number of the members of the University, and Mr. Sewdall, a Poor-law Inspector, assembled in the school-room of the parish. Here the Doctor, after stating the object of the excursion, proceeded to say that it was desirable that students of a younger age, and students like himself of older years, should endeavour to see clearly what was their object—namely, the caring for the health of the whole nation. For sanitary administration they required that there should be a universal power over every spot of country, which should be appointed with such skill as to the knowledge of scientific questions, so sure and complete, that it could not be overthrown—in simple words, that there should be throughout the country persons who were able to settle the legal point of whether a well was being poisoned, and to say whether it was a thing which ought to be put down. With regard to drainage, he would have the people educated to show its advantages, and would then give them facilities for carrying out any work that was needed. Among the other requisites for healthy people was house accommodation. That was the whole root of the sanitary problem, and what they were going to do that day was to visit some of the houses and inspect the rooms. He thought the parish of Marsh Gibbon was one of the most instructive and interesting that he knew in the country, for two or three reasons. The district was on the Oxford clay, and it was very difficult to obtain water—in fact, there was no good drinking-water to be had there. But the people themselves could not remedy this state of things. He himself was officially, as Professor of Medicine, trustee for certain property in the parish. He had found that there were between 130 and 140 houses there, the greater part of which were really not fit for the people to live in. He had paid great attention to sanitary matters, and was very desirous of doing all in his lifetime that he might be permitted to do for the prevention of disease in the whole country; and here he suddenly found himself, by God's providence, trustee over a property on which ninety out of 140 houses were unfit for the people to live in. What were they to do? The law would not permit him to pull them down, and they could not be rebuilt because they had no money. A lot of these houses had been built on the edge of the road by what were vulgarly called "squatters," and he should show some of them to the party that day. The question arose, to whom did they belong? The parties had built them and paid for the materials, and they had been there so long that undoubtedly the houses did belong to the parties who built them. He would first of all take them to view the worst of these squatters' houses, then the repaired cottages, and then some of the new ones, in order to show as well as he could a sample of what might be considered a good cottage. In conclusion, Dr. Acland said that one thing must be borne in mind—that after all they might say about the sanitary condition and the improvement of the health of the people, not much substantial good would result unless an improvement was made in the education of the masses of the people. The party then proceeded through the

village. A careful inspection of the cottages disclosed most defective sanitary conditions, and in many of them overcrowding was carried on to a great extent. Some new cottages were also inspected, and others that are being erected. As finished the cottages are tenanted in order of priority by the best-conducted labourers. The inspection completed, the party returned to Oxford. Much useful knowledge was gained, and much practical instruction given during the inspection by Dr. Acland. We hope this example will be followed by other teachers of sanitary science.

Mr. George Errington, M.P. for Longford, has introduced a Bill to amend the Apothecaries (Ireland) Act of 1791. The measure follows very closely the lines of the Bill recently proposed by the King and Queen's College of Physicians, and which was noticed in the *Medical Times and Gazette*, April 18, 1874, page 431.

The annual meeting of the Dublin Sanitary Association was advertised to be held on the afternoon of Thursday, the 2nd inst. We hope to give an account of the proceedings of this useful body next week.

Surgeon-Major Rowe has, we understand, been made a C.M.G., for services on the Gold Coast.

Dr. Tolozan, Physician to the Shah of Persia, has been elected a corresponding member of the French Academy in the Section of Medicine and Surgery.

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ROYAL COLLEGE OF SURGEONS.

The annual election of Fellows into the Council of the College of Surgeons took place on Thursday last, and did not appear to have lost any of the interest taken in this important subject, although there was none of the questionable touting for votes for this high and honourable office which was observed on the last occasion. The respective candidates appeared to rely on their well-known merits,—they were Messrs. John Hilton and John Marshall, who offered themselves for re-election; with Mr. E. L. Hussey, of Oxford, Mr. H. Smith, of Wimpole-street, and Mr. Alfred Baker, of Birmingham.

Punctual to the time appointed—viz., two o'clock,—the President, Mr. T. B. Curling, F.R.S., entered the library, where the election took place. After briefly explaining the object of the meeting, he called on the Secretary to read those portions of the by-laws relating to the elections. This having been done, the Fellows were invited to record their votes, which simply consisted in drawing the pen through the names of those candidates for whom the Fellow did *not* vote, taking care not to leave *more* than three, corresponding with the number of vacancies. The President having declared the voting closed, the Secretary called over the names, which were duly recorded by Mr. Stone on papers provided for this purpose, some of which were distributed to the Fellows desirous of keeping their own account. This work having been accomplished, and duly verified, the President declared that the choice of the Fellows had fallen on Messrs. Marshall, Hilton, and Baker. The election was over at five o'clock. There were present 237 Fellows of the College.

The numbers polled by each candidate were as follows:—Mr. John Marshall, 152, including 13 plumpers; Mr. John Hilton, 116, including 19 plumpers; Mr. Alfred Baker, 102, cluding 10 plumpers; Mr. Henry Smith, 95, including 20 plumpers; and Mr. Edward Law Hussey, 58, including 3 plumpers.

As showing the great interest taken in the election, it may be mentioned that Fellows attended from long distances, as Dr. Harris, of Redruth, Cornwall; Messrs. Archer, Bindley, Evans, Goodall, Savage, and Solomon, of Birmingham; Bowring, Fletcher, Lund, and Southam, of Manchester; Barter and Bateman, of Bath; Bryan and Buszard, of Northampton; Jessop, of Leeds; Copeman and Crosse, of Norwich; Cooke and Manby, of Wolverhampton; Arnott, of Fifeshire; Benfield, of Leicester; Bodington, of Kingswinford; and Brookes, of Shrewsbury.

In the evening the Fellows dined together at the Albion Tavern, under the able chairmanship of Professor Erasmus Wilson, F.R.S., who was supported on this interesting occasion by the heads of public departments and some of the most distinguished members of the profession.

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PROPOSED CHANGES IN THE GOVERNMENT OF THE GOLD COAST.

On Thursday evening, the 25th ultimo, a debate took place in the House of Commons on the future policy to be adopted with regard to the Gold Coast settlements. The subject, if not one of great national importance, is still of interest to this country from the fact that such arrangements as are contemplated will have to be carried out in a climate so exceptionally bad that, as the recent operations undertaken there abundantly prove, it may without exaggeration be pronounced the worst in the whole world. To begin with, the government of the settlements is to be remodelled, Lagos and the Gold Coast being coupled together and entirely separated from Sierra Leone. Cape Coast Castle, having now thoroughly established its reputation as one of the most deadly spots on the whole territory, is to be abandoned as the seat of government, and some more healthy site chosen. Accra is spoken of as possessing superior advantages for the new position, as it lies equidistant between Lagos and the Gold Coast settlements, and would therefore be peculiarly appropriate for the head-quarters of the Government; moreover, it is distant only thirty-five miles from the Accropong mountains, where a sanatorium might be established, to which the governor and his staff could retire at the commencement of the unhealthy season, in the same manner as the seat of government is shifted in India from Calcutta to Simla at the beginning of the hot season. German missionaries who have resided on these mountains for some years report favourably of their healthiness, and the experience of these gentlemen is entitled to grave consideration from the opportunities of observation which their calling affords. A rough road to the mountains already exists, which it is stated might readily be rendered serviceable at a small cost. The only objection to the selection of Accra for this purpose is stated to be the difficulty of landing there, the surf being particularly heavy and dangerous on the coast, but this drawback might be overcome by the construction of a pier. It is certain that the heavy mortality of Cape Coast Castle renders a removal from its pestiferous neighbourhood an absolute necessity; as Mr. Lowther quaintly remarked in the course of the debate in question, "it might be permissible to doubt whether human sacrifice was entirely confined to the Ashantee kingdom," so long as we sent out officials and troops to be located at such a malarious station.

The next suggestion is that the military force for the defence of the settlement shall be drawn entirely from local sources, such as the Houssas and other warlike tribes. This, although at first sight a very sensible arrangement, is open to the objection that the military power of the colony is placed entirely in the hands of the natives. It may, however, eventually be found that if the sanatorium on the Accropong Hills is as healthy as reported, one of the West India regiments could be stationed there without experiencing a heavier rate of mortality than it would contract in any of the Windward and Leeward Islands stations, and this would establish a salutary check upon all the native levies.

If the foregoing arrangements are promptly carried out and efficiently executed, it cannot be said that the late war has been fruitless in good results. For years we have been sending Government officials and soldiers to do duty in a spot where the chances against European life were almost incalculable. As an example, the medical service is looked upon as

so exceptionally dangerous that special provisions have to be made by the Government, in the way of leave, and reckoning of service, etc., to obtain a sufficient supply of officers for this branch of the department; and the death-ratio is so appalling, that it has been a matter of wonderment with many how the demand has for such a number of years been met. It is true that on the Coast the medical officer enjoys peculiar advantages. Thus, from despatches recently received at the Foreign Office, it appears that Surgeon-Major Rowe, recently arrived in this country, had been sent in one direction as ambassador to settle terms of peace with the chiefs of the Aquamoos and Ahwonahs; whilst Surgeon Gouldsbury, of the Army Medical Department, is announced to have returned to Elmina from the ports to the westward, having settled all the questions at issue between her Majesty's Government and the several tribes who were standing out for terms. Still, even ambassadorial honours are scarcely to be weighed against life itself, and we shall receive with much satisfaction the intelligence that the projected change of head-quarters, from Cape Coast Castle to some more healthy spot has actually taken place.

### THE CONVERSAZIONE OF THE ROYAL COLLEGE OF PHYSICIANS.

The annual *conversazione* of the Royal College of Physicians was held on Wednesday evening. There was a large and influential gathering. The visitors were received by Sir George Burrows and the office-bearers. Amongst a vast number of objects of great interest, the following were exhibited:—Portraits of Sir George Burrows and Sir Thomas Watson; specimens of art pottery, by Messrs. Minton; permanent enlarged photographs of trees and scenery, and other works of art, by Mr. Vernon Heath; paintings and works of art, by Messrs. Vokins; specimens of eucalyptus globulus and products, by Professor Bentley; drawing ("Leicester-square as it is") and oil paintings, Mr. Albert Grant; cast of the left humerus of Dr. Livingstone, showing the false joint consequent on the bite of a lion, whereby the body was identified, by Sir William Fergusson, Bart.; barber-surgeon's shaving and bleeding basin, Dr. Jolly; photo-mezzotint portraits of members of the medical profession, Messrs. Fradelle and Marshall; microscopes, stereoscopes, graphoscopes, with objects (anatomical and otherwise), by Messrs. Ross, Powell and Lealand, Murray and Heath, and Mr. Baker; cholera curves, by Dr. C. Macnamara; various plans and models for dwellings for the labouring classes, by Sir Sydney Waterlow and others. We regret to be obliged to add that the arrangements in the refreshment department were not so satisfactory as usual; nor were the refreshments themselves of such excellence as has been the custom at the College of Physicians.

### THE GENERAL MEDICAL COUNCIL.

The General Medical Council meet on Thursday next, and, we understand, will for the first time sit under a roof of their own. On this the Council are to be sincerely congratulated, for to reside longer in their present premises, tenants of those who manage the Hospital for Diseases of the Heart, would, to say the least of it, be undignified. The term of office of the President expires in a few days, and it is understood that Dr. Paget will decline re-election. At this we are hardly surprised, for the tax of time and labour imposed by the duties of President of the Council are something greater than can well be borne by one living at a distance from the scene of the Council's labours. Dr. Paget must, indeed, be congratulated and complimented on the way in which he has been able to reconcile a residence in Cambridge with the performance of such onerous duties in London. It may be safely said that in no instance have the duties been more efficiently performed, and certainly never at a greater sacrifice. In point of fact we can hardly suppose that any other than one residing in London should in future be entrusted with the duties of this responsible, if honourable, post. We have heard it mooted that the choice of the Council is likely to fall on Mr. Cæsar Hawkins, formerly the representative of the College of Surgeons on the Council, as their future President. No one, we are sure, would preside with greater dignity over that body, which has such important interests entrusted to it.

### OBSERVATIONS ON THE GROWTH AND REPRODUCTION OF THE RED CORPUSCLES OF THE BLOOD.

In a pamphlet with the above title, Dr. Robert H. Bakewell communicates the results of certain investigations which he has lately carried out on the subject. His method of research is as follows:—A small glass bottle is filled with a mixture of the blood of a bird, and serum, or the albumen of the egg, and then corked very slowly so as to exclude all air. This is kept at the temperature of the body, and examined microscopically from time to time. Dr. Bakewell states that the red corpuscles may then be observed to undergo great vital changes, and to reproduce their like, the following being the steps of the process:—Swelling of the whole corpuscle, but especially of the nucleus; elongation of the nucleus, and commencing division into generally two, but sometimes four parts; division of the nucleus, and separation of the parts within the wall of the corpuscle; rupture of the wall, and escape of the nuclei; shrinking and ultimate fatty metamorphosis of the corpuscle; agglomeration of the free nuclei into groups or masses. The nuclei next take on them a transparent jelly-like envelope, which enlarges until it assumes the form of a distinct cell-wall with contents, and absorbs the colouring-matter of the blood, while the nuclei become obscured, but may be brought out by dilute acetic acid or water.

### THE TRANSMISSION OF SYPHILITIC CONTAGION IN THE RITE OF CIRCUMCISION.

This question has lately been discussed by Dr. R. W. Taylor in the *New York Medical Journal* (December, 1873), in connexion with four cases in which it was suspected that syphilis had been communicated to the infants by the operator. It had been suggested that inoculation had taken place in consequence of the wound in circumcision having been sucked, according to a custom prevailing among the lower classes for stopping hæmorrhage, by the operator, who had syphilitic lesions in his mouth. This old method of controlling bleeding during the operation is still sometimes practised, and is done by the insertion of the child's penis into the mouth of the operator, which contains either port wine, salt and water, or vinegar and water. After a careful examination of two of the children and of the operator, and a review of the whole circumstances, Dr. Taylor concludes that in one child there was undoubted evidence of primary and secondary syphilis, but no evidence whatever of the manner of infection; that in the other three cases the lesions were probably not of a syphilitic nature; and that the operator, who presented no trace whatever of syphilis, was to be "thoroughly exonerated."

### UNITED HOSPITALS' ATHLETIC SPORTS.

The annual sports of the United Hospitals Athletic Club took place at Lillie-bridge Grounds on Saturday last. The weather was very fine, the attendance large and fashionable, and the various events well contested, although in some of the contests we expected to see a larger number of competitors. Mr. Holden, the President of the Club, and several other members of hospitals' staffs, were present, and appeared to take great interest in the proceedings. The following is a list of the chief events and the names of the winners:—One Hundred Yards' Challenge Cup, Saunders (St. Bartholomew's); Throwing the Hammer, C. T. Dent (St. George's); Throwing the

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Cricket-ball, A. W. Pearson (Guy's); Hurdle Race, E. B. Turner (St. George's); One Mile Challenge Cup, C. B. Lewis (King's); Half-Mile, G. E. Mooro (King's); High Jump, F. Darker (St. Thomas's); Putting the Shot, E. Tarleton (St. Bartholomew's); Quarter-Mile, E. Howlett (King's); Long Jump, A. Brummell (St. Bartholomew's); Two Miles, C. B. Lewis (King's); 250 Yards, Howlett (King's). King's College, having won the largest number of events, holds the Challenge Shield for the ensuing twelve months.

THE AFTER-TREATMENT OF LARGE AMPUTATIONS.

Mr. Robert Hamilton, of Liverpool (pamphlet), strongly advocates the open treatment of large lacerated wounds and primary amputations, and of secondary amputations where removal of the limb is the *dernier ressort*. (Compare *Medical Times and Gazette*, March 28, 1874.) He points out that about the second and third days after an amputation, in a limb put up in the ordinary way, with sutures, plasters, and bandages, especially in either of the above circumstances, the flaps present a turgid appearance, the edges become sloughy, and, the dusky line deepening and extending, all the skin and subjacent tissue which has assumed this appearance—be it even half the flap—dies and comes away, leaving what promised to be a well-covered stump, bare, with bone exposed. In such cases the attempt to carry out Mr. Lister's method leads often to similar sloughing of the skin within the first few days by undue strain, or to abscesses later on. The same objection applies to Mr. Callender's method of treating wounds as far as bringing together the flaps is concerned, and fitting in drainage-tubes. Mr. Hamilton publishes four cases in illustration of the plan which he recommends.

STATISTICAL SOCIETY.

At the fortieth anniversary meeting of the Society held on Tuesday last, the following Fellows were elected as President, Council, and Officers for the year ensuing. Those marked * are new members:—*President:* William Augustus Guy, M.B., F.R.S. *Council:* *The Right Hon. the Earl of Airlie, K.T.; Sir James Anderson, F.R.G.S.; *General Sir George Balfour, M.P.; Henry G. Bohn, F.R.A.S., F.L.S.; *Thomas Brassey, M.P.; Samuel Brown, F.I.A.; Edwin Chadwick, C.B.; Hammond Chubb, B.A.; Hyde Clarke, D.C.L.; *Leonard Henry Courtney; Francis Galton, F.R.S.; Robert Giffen; F. H. Janson, F.L.S.; Henry Jeula, F.R.G.S.; James Thomas Hammick; Frederick Hendriks; James Heywood, M.A., F.R.S.; Francis Jourdan; H. Reader Lack; Professor Leone Levi; William Golden Lumley, Q.C., LL.M.; R. Biddulph Martin, M.A.; Frederic John Mouat, M.D.; *R. H. Patterson; Frederick Purdy; Ernest Seyd; Thomas Sopwith, M.A., F.R.S.; the Right Hon. the Earl Stanhope, F.R.S.; *General Richard Strachey, R.E., F.R.S.; William Tayler. *Treasurer:* James Thomas Hammick. *Secretaries:* Frederic J. Mouat, M.D.; Robert Giffen; H. Reader Lack. *Foreign Secretary:* Frederic J. Mouat, M.D.

THE NEW "M.P." FOR GALWAY.

Mr. Michael Francis Ward, who was returned for Galway on the 30th ult., in the Home Rule interest, is a member of the medical profession. He became a Licentiate of the Royal College of Surgeons, Ireland, in 1868, having previously studied at the Queen's College, Galway, and Steevens's Hospital, Dublin. He joined the King and Queen's College of Physicians in 1871. At present Mr. Ward is one of the Demonstrators of Anatomy and Curator of the Museum in the Catholic University School of Medicine, Dublin. He beat his opponent, Mr. J. H. Monahan, Q.C., son of Judge Monahan, and a rising member of the Connaught bar, by a majority of 438, the aggregate number of votes polled having been 1029. Mr. Monahan stood in the Liberal interest, and as a firm supporter of Mr. Gladstone.

PROPOSED ADDITION TO THE NUMBER OF MEDICAL FACULTIES IN FRANCE.

The report by M. Paul Bert, Professor of Physiology at the Sorbonne, on the subject of "Additional Faculties of Medicine in France," recommends that among the present *écoles secondaires* those of Lyons and Bordeaux should be elevated to the position of faculties of medicine, taking rank with Paris, Montpellier, and Nancy. The report points out that the number of medical students at Paris, reaching at present the enormous total of 4000, is too great for the faculty to manage with success. It is calculated that Lyons, with an already distinguished medical staff, and hospital patients to the number of 30,000 annually, would afford the means of education for 1000 students. The principle on which the recommendations of the report are chiefly based is the necessity of decentralising the teaching of medicine in France. The National Government will give its support to the proposal.

PROPOSED ADMISSION OF WOMEN TO THE DEGREES OF THE UNIVERSITY OF LONDON.

At a meeting on Wednesday, the Senate of the University of London adopted the following amendment by 17 votes to 10 on a proposal to obtain a new charter enabling the University to confer degrees on women:—"That the Senate is desirous to extend the scope of the educational advantages now offered to women, but it is not prepared to apply for a new charter to admit women to its degrees." We understand that most of the members present took part in the discussion on the subject. Among those who spoke in favour of the amendment and voted in the majority were—Earl Granville, Lord Overstone, Lord Cardwell, Sir George Burrows, Sir William Gull, Dr. Sharpey, Dr. Quain, and Dr. Sibson. The minority included the names of Mr. Lowe, Mr. Goschen, Dr. Parkes, and Mr. Hutton.

DWELLINGS OF THE POOR IN CHESHIRE.

Mr. J. A. Davenport, Sanitary Inspector to the Nantwich Rural Sanitary Authority, in his last report refers to the dwellings of the poor in the township of Bickerton, West Cheshire. After describing the horrible condition of these dwellings—the overcrowding, the dissemination of disease, and its fatal consequences in the district,—he concludes by remarking that, generally speaking, the houses have no back doors, and many of them are curiosities in their way. A ladder is found sometimes in the place of stairs. The winds playing about the hills are, he says, truly messengers of mercy, and no doubt serve to prevent in a great measure many of the evils that might otherwise arise. There are but few cottages in the township that can be said to be well and conveniently constructed, and to have fairly good arrangements outside.

THE HOSPITAL SUNDAY FUND.

Up to Wednesday morning the total sum which had been paid in at the Mansion House as the result of Hospital Sunday collections amounted to about £26,500; and as several large sums remain to be paid in, it is pretty certain that this year's appeal will realise considerably more than that of last year. The total sum received last year was £27,589 19s. 2d., of which £26,411 13s. 4d. was distributed to 105 hospitals and kindred institutions. Last year her Majesty the Queen headed the list of donations with the sum of 100 guineas, but we understand that an intimation has been received from the Keeper of her Majesty's Privy Purse that it is not intended to repeat the gift this year.

SUPPLY OF WATER TO THE METROPOLIS.

The Government, it would appear, is fully impressed with the importance of a proper supply of water to the metropolis. On the occasion of the laying the foundation-stone of the new

waterworks at Chichester last week, Lord Henry Lennox said the supply of water to the metropolis was constantly under the attention of the Government. The Bill introduced on the subject in the present session, under the auspices of the Society of Arts, through an informality did not pass the standing orders, but it would be introduced next year.

REPORTED OUTBREAK OF PLAGUE IN BARBARY AND BAGDAD.

THE *Levant Herald* contains a statement to the effect that the Ottoman Consul at Malta had telegraphed on the 15th ult. to the Board of Health that an outbreak of the plague had taken place at Merdj—a town in the district of Barca, in Tripoli, Barbary, twenty hours distant from Benjazi. The Board has, in consequence of this news, ordered two medical officers to be sent immediately to the infected locality, and has, moreover, applied a three days' quarantine of observation on arrivals from Benjazi and its dependencies with a clean bill of health. The Board has also received intelligence from Bagdad up to the 14th ult., announcing a decrease in the outbreak of plague in that province.

PARLIAMENTARY.—SANITARY LAWS AMENDMENT — FACTORIES, HEALTH OF WOMEN, ETC.—CONTAGIOUS DISEASES (ANIMALS) ACT—THE EUCALYPTUS GLOBULUS—LABOURERS AND ARTISANS' DWELLINGS—APOTHECARIES' LICENCES—PUBLIC HEALTH (IRELAND).

IN the House of Commons, on Thursday, June 25,

Mr. Sclater-Booth, in reply to Colonel Barttelot, said that he proposed to ask the House to resolve itself into a committee on the Sanitary Laws Amendment Bill one day this week, when he would make a statement on the subject.

On the motion of Mr. Cross, a new clause was inserted into the Factories Bill relating to the health of women, and the report was agreed to.

The Apothecaries' Licences Bill was read a second time, and referred to a Select Committee.

On Friday, June 26,

Sir M. H. Beech, in reply to Mr. Barclay's complaint with reference to the slaughtering of cattle in Ireland for pleuro-pneumonia, said that the funds out of which compensation would have to come in Ireland would be levied in the shape of a national rate, and not out of the rates of any particular locality. If the undoubted want of properly qualified inspectors were supplied by sending veterinary surgeons over from England with large salaries, an enormous expense would have to be incurred. If such a staff were not established, the Constabulary would have to be employed, and they would hardly be the most competent persons to distinguish pleuro-pneumonia from any other form of cattle disease. Thus there might be a system of slaughter which would be practically unchecked, and there would be great obstacles in the way of applying compulsory slaughter for pleuro-pneumonia to the case of Ireland. It had not, he might add, during the time it had been tried in England—nine or ten months—been so successful in checking the spread of pleuro-pneumonia as had been anticipated. The disease, he might further observe, according to recent returns furnished by the Veterinary Department of the Irish Government, prevailed only to a very small extent indeed in Ireland. There were, he believed, only seventy-five separate farms in Ireland in which the disease at present existed. It was said, no doubt, by those connected with agriculture in England that a great amount of the disease which prevailed in this country was due to its importation from Ireland, but those who were conversant with agriculture in the latter country would not, he believed, concur in that view. As to the system of inspection, he admitted the difficulty of getting proper inspectors at the ports of embarcation, but the Irish Government were prepared to use their best endeavours in the matter. The proper place for the inspection of exported cattle was at the port of exportation. When any animal leaving an Irish port was suspected of having an infectious or contagious disease it was at once seized, and was branded with a mark which would make it possible afterwards, by application to the Veterinary Department of the Irish Government, to find out the date and place of its shipment, and the very farm from which it had come. But, although this was the case, no single complaint had been made to the Veterinary Department.

On Tuesday, June 30,

Mr. J. Lowther, in reply to Colonel Egerton Leigh, said that the Colonial Office had been informed by Dr. Hooker that it is doubtful whether the eucalyptus globulus, which is a native of the cooler parts of Australia, will thrive in West Africa or in any thoroughly tropical climate; and that its sanitary properties have been much exaggerated. It has been for years cultivated, without success, in Mauritius. Seeds have, however, been sent to Grenada and the Leeward Islands as well as to Sierra Leone, and information upon the subject has been given to the Administrator of the Gold Coast.

On Wednesday, July 1,

The Labourers and Artisans' Dwellings Bill, to provide a loan of money from the Commissioners of Public Works, being opposed by the Chancellor of the Exchequer, was lost.

The following is a list of members nominated for the Select Committee on the Apothecaries' Licences Bill:—Mr. Errington, Sir M. H. Beach, Sir J. Gray, Mr. Corry, Dr. Cameron, Mr. J. Hamilton, Dr. O'Leary, Mr. Bruen, Mr. Sheil, Mr. Leslie, and Mr. Chaine.

On Thursday, July 2,

The Committee were to sit on the Public Health Bill for Ireland, the Sanitary Laws Amendment Bill, and the Registration of Births and Deaths.

## THE HUNTERIAN MUSEUM.

PROFESSOR FLOWER'S ANNUAL REPORT.—WANT OF SUPPORT TO THE PATHOLOGICAL COLLECTION—CONTRIBUTIONS TO THE COLLECTION OF COMPARATIVE ANTHROPOLOGY—DONATION OF EGYPTIAN SKULLS BY MR. FLOWER—ADDITIONS TO THE OSTEOLOGICAL SERIES—NEW PREPARATIONS IN COMPARATIVE ANATOMY—SURGICAL INSTRUMENTS—REPORT OF THE ROYAL COMMISSION ON SCIENTIFIC INSTRUCTION AND THE ADVANCEMENT OF SCIENCE, ON THE MUSEUM—CONTRIBUTORS TO THE MUSEUM.

PROFESSOR FLOWER has just presented his annual report on the state of the collection and the considerable accessions made to it during the past year; these, which have all been catalogued and described, are now on view in the theatre of the College, where they will remain till the 9th inst., and will well repay a visit to them by the members.

Speaking of the Pathological Collection, he states that as many as 274 of the preparations have been remounted during the year, and sixty-six new ones have been added. Among the latter is an interesting complete articulated skeleton, showing a very peculiar condition of the vertebral column, arrest of development of the left side of the lower cervical and upper dorsal vertebræ, and of the first left rib, with anchylosis of the bodies of the corresponding vertebræ, accompanied by angular curvature of the upper lumbar region.

We gladly support the appeal made by the able Conservator, not only to the members of the College, but to the profession generally, on the desirability of giving larger support to this important department of the Museum, by means of donations. The College, having none of the facilities for obtaining and selecting specimens possessed by the museums of medical schools attached to hospitals, where operations and post-mortem examinations are of constant occurrence, is entirely dependent upon the contributions of those who desire to see the Hunterian Museum worthily maintain its place as a central or national institution for illustrating, as far as may be by preserved specimens, the facts of pathological anatomy.

The Conservators are well aware of the difficulties in the way of obtaining what is here asked for—the trouble and occasional expense of forwarding specimens (which will be willingly repaid on receipt of the parcel at the College), the necessity for promptitude in doing so, the frequent deterioration or destruction of the specimens by packing or travelling, and, lastly, the disappointment which must often be felt by the donor at finding that the specimen, being a duplicate, or not in good condition, or, as too often happens, from not having any history sent with it, does not obtain a permanent place on the Museum shelves. But an earnest desire to promote the objects of the collection will overcome all of these. The profession may satisfy themselves, by an inspection of the annual exhibition of new preparations, and of the collection in the

galleries of the Museum, that every specimen which really supplies a deficiency in any series will be duly cared for, properly dissected, catalogued, and, without more delay than is absolutely necessary in preparation, exhibited in its proper place in the Museum. It will be easily understood by our readers that discrimination in respect to selection must be left to the Conservators, who in all doubtful cases refer to the Museum Committee. It is almost impossible to say beforehand, without a careful examination of a specimen, and often until it is actually dissected and mounted, whether it ought or ought not to be placed in the Museum. Its value depends, not on its being an example of a particular disease, but upon whether or to what extent it exhibits and illustrates the anatomical characters of that disease. It is moreover desirable in a Museum maintained in an efficient teaching condition, that old or inferior specimens should be occasionally replaced by others showing the same facts in a more perfect manner.

Probably the idea that all departments of pathology are adequately represented already in so large a collection, deters many from sending specimens which, although comparatively common, are still desiderata; among which may specially be mentioned lardaceous diseases of viscera, visceral syphilis, phthisis (more especially the chronic fibroid form), and diseases of the valves of the heart.

The Collection of Comparative Anthropology has been considerably increased during the year; and the series of articulated skeletons of different races of men begin to form an important feature in the Museum. A female Australian from Queensland, and two very characteristic West African negroes from the seat of the late war, presented a few years back by Staff-Surgeon J. R. Thomas, though not recent additions to the Museum, have during the past year been mounted and added to this series. Two skeletons (both young females) from an ancient burial-ground in Bolivia, of the characteristic short-headed race, have been presented by Reginald J. G. Leigh, Esq., who brought the bodies in the desiccated condition in which they are preserved for ages, owing to the dryness and chemical qualities of the soil. Before they were made into skeletons, photographs were taken to show the peculiar attitude of interment, and the condition of the soft parts of the bodies. These photographs are placed by the side of the skeletons in the Museum. A wound inflicted by a sharp instrument in the forehead of both subjects appears to indicate that they died a violent death, perhaps (as suggested by Mr. Busk) as sacrifices. A very interesting skeleton—that of an old man of the Samoyede race, from the northernmost part of Russia—has been purchased. The principal peculiarities of this specimen have been pointed out by Mr. Busk, in a communication lately read before the Anthropological Institute.

It is singular that the very remarkable race which for some thousands of years occupied so important a position in history, and with whom so much of the arts and sciences of the civilised world appears to have originated, the ancient Egyptians are most inadequately represented in our craniological collections. Yet this race of all others, by their universal practice of embalming the dead, took the most efficient measures for giving those who lived after them the opportunity of studying their physical characteristics, as by the graphic representations with which they covered the walls of their tombs and temples they perpetuated a knowledge of their manners and customs while living. The museum a year ago only contained nine crania ascribed to inhabitants of ancient Egypt; and the largest general collection of skulls in England, that of Dr. Barnard Davis, has only ten. It is much to be feared that the opportunity of forming a really valuable collection of the skulls of these people, authenticated as to locality and probable antiquity, is rapidly passing away, and ere long will be entirely lost. In the eager search for papyri, scarabæi, and other archæological treasures, the inmates of all the known and accessible tombs have been literally torn to pieces, and the scattered fragments of their bodies thrown out on the desert sand to perish under the scorching sun, or with their bitumenised wrappings to serve as fuel for their degenerate successors. During Mr. Flower's recent visit to Egypt, on account of a temporary failure of health, he was fortunately able to secure and bring home ten skulls in tolerably perfect condition from the great necropolis of Thebes, which have now been cleaned and added to the collection; and he suggests to others having the privilege of travelling in that most interesting land to make a similar contribution to the preserved and accessible materials for the history of the human species. As the number of such specimens is absolutely limited, their value will certainly be very much increased in the future in consequence of the greater attention to the subject of anthropology and the multiplication of museums. These skulls, in the injury to the ethmoid bone, all confirm the statement of Herodotus, in his description of the method of embalming practised by the ancient Egyptians, that, "in the first place, with an iron hook, they draw out the brain through the nostrils, and fill up the vacuum by injecting drugs."

Among other additions to the general Osteological Series are two very instructive skulls of fishes—the salmon and trout,—in which the central cartilaginous portions are reproduced by a plastic composition, and the ossified bones around them are consequently retained in their natural position and relations, which in the old system of mounting fishes' skulls was almost impossible.

Two skeletons of the fur-seal of the Falkland Islands (*Otaria Falklandica*), male and female, have been presented by Mr. Coleman, who has thus liberally availed himself of his opportunities, as Secretary to the Falkland Islands Company, of furthering a scientific knowledge of the animals which have hitherto only been treated as a source of pecuniary gain. Dr. Horace N. Watts, formerly Colonial Surgeon at the Islands, has also presented a very fine skull of the sea lion (*Otaria jubata*).

Mr. Sclater has presented two valuable skulls of young individuals of Baird's tapir (*Tapirus Bairdii*) from Mexico, showing the progress of ossification of the remarkable nasal septum characteristic of this species; and Mr. R. Swinhoe, of H.M. Consular Service, who has added so greatly to our knowledge of the zoology of China, has, as on several previous occasions, enriched the Osteological Series by various specimens collected by himself, including a perfect example of the water deer (*Hydropotis inermis*), remarkable for its great canine teeth and absence of antlers. The existence of this animal was quite unknown to science until it was discovered a few years since by Mr. Swinhoe in the neighbourhood of Shanghai.

To the series of Cetacean skeletons a long-desired addition has been obtained in a complete specimen of the very singular fresh-water dolphin of the Ganges (*Platanista Gangetica*), received through the courtesy of Professor Rolleston, in exchange with the Oxford University Museum.

Dr. Julius Haast, F.R.S., of the Canterbury Museum, Christchurch, New Zealand, sends one of the smaller species of the extinct wingless bird of that country (*Dinornis didiformis*), far more complete than any yet received, showing very well the general characters of the race, though on a diminutive scale compared to some of its gigantic congeners, isolated bones of which have long been in the Museum.

A skeleton of a jackal has been mounted and presented to the Smithsonian Institution at Washington, at the request of the secretary of that liberally managed establishment, as a specimen of the method of articulation introduced and carried out by Mr. James Flower.

In the Physiological Collection, 266 preparations have been remounted during the past twelve months.

There are also some interesting preparations in comparative anatomy which help to fill up lacunæ in the collection. For most of these the College is indebted to Mr. Sclater and Mr. A. H. Garrod, of the Zoological Society, who continue to show their appreciation of this Museum, as a means of preserving and diffusing anatomical knowledge, by depositing in it many of the specimens of interest which come before them in the dissections so ably and systematically carried on in the admirably managed gardens of the Society. These include five preparations of the muscular system of birds, specially illustrating a very important memoir on that subject lately published by Mr. Garrod, in which it is shown, from a large series of dissections, that the presence or absence of certain muscles of the thigh and leg are constant distinguishing characters of many natural groups, and of great assistance in the very difficult subject of classification of this class of vertebrates.

There have been numerous additions to the collection of surgical instruments, which must be very gratifying to Sir William Fergusson, the originator of this department, amongst the donors are Messrs. H. Bellot, P. Hewett, J. Hogg, T. L. Hussey, T. C. Jackson, T. M. Stone, and Percy Wormald, son of a late President of the College.

The Royal Commission on Scientific Instruction and the Advancement of Science, of which the Duke of Devonshire

is chairman, have been investigating the condition of the various national scientific museums, and their report on the subject, lately issued, contains the following paragraphs relating to the Museum of the Royal College of Surgeons of England, which will be read with great interest by its members:—

"This collection of human, comparative, and morbid anatomy was founded in the last century by the celebrated John Hunter. After his decease the Hunterian Collection was purchased by the Government, and placed in the keeping of the Royal College of Surgeons, subject to periodical inspection by a board of trustees, which is kept up by co-optation of new members as vacancies occur. Since the collection came into the possession of the College, it has been vastly extended and enriched, and is now probably the most complete and best-arranged museum of its kind in existence. It is freely accessible to students, and lectures to members of the College, to which any person interested readily obtains admission, are delivered, on comparative anatomy by the Conservator, Professor Flower, and on surgical subjects by Fellows of the College appointed to that duty from time to time by the Council.

"For the purchase of the original or Hunterian Collection and in grants for buildings, the nation has contributed £57,500 towards the expense of this Museum; but the entire expense of its maintenance and continued extension, amounting to about £2500 a year, is discharged by the College out of the fees payable by candidates who pass the examination for the College diploma; and the aggregate sum which has been thus expended far exceeds that supplied by the State.

"The comparative anatomy division of this Museum, besides a great osteological collection, contains an extensive series of preparations of the internal organs and other dissected parts of animals, preserved in spirits. Preparations of this description are requisite for a well-grounded study of zoology; and as no such series exists in the British Museum, this part of the College of Surgeons' Museum may be regarded as supplemental to it. But although it might seem, on this account, desirable to incorporate the comparative anatomy division of the College of Surgeons' Museum, in whole or in part, with the zoological collections of the British Museum, there appear to be serious objections to such a measure. For, in the first place, by far the greater part of the collection in question being the property of the College of Surgeons, a very large outlay of public money would be required for the purchase of it, were the College willing to part with it, which we have no reason to think probable. Again, so large an increase of spirit-preparations in the British Museum would increase the risk of destruction in case of fire; and, lastly, the transference of the comparative anatomy collection to South Kensington would render it much less conveniently accessible than it is at present to students attending the medical schools, who now make use of it.

"Should the fund at the disposal of the College, owing to changes in medical legislation, or from any other cause, prove inadequate for the efficient maintenance and continued extension of the Museum, we are of opinion that it should receive support from the State as an institution intimately connected with the progress of biological science in this country. At the same time there seems to be no sufficient reason why it should, in such a case, pass from the custody and management of the College, under which it has so long and so greatly prospered."

Amongst the contributors to the Museum of the College of Surgeons will be recognised the names of gentlemen ever taking the warmest interest in its success, as Professors Gervais, Julius Haast, Otto Barth, of Leipsic, who presents a collection of histological preparations, chiefly pathological, exhibited by him at the meeting of the British Medical Association in 1873; Sirs William Fergusson and Victor Brooke; Messrs. Hilton, Gay, Spencer Wells, J. C. Forster, T. Bryant, T. Holmes, F. Mason, Rivington, McCarthy, Ashburn, Duncan, B. Holt, J. Birkett, Doran, C. G. De Morgan, Howse, R. O. Clark, A. E. Durham, R. Bell, W. M. Baker, C. T. Barter; Drs. Goodhart, Peatson, J. B. Jackson, J. Nicholls, Fayrer, etc. Mrs. Wormald presents the skeleton of the notorious John Thurtell, executed at Hereford in 1824 for murder.

The Fellows of the College attending the annual election into the Council on Thursday last crowded the theatre, explaining to their friends and others the history of preparations presented by them to the Museum of their *Alma Mater*.

# RESEARCHES ON THE BRAIN.(a)

## By Dr. EDWARD HITZIG.

### No. II.

The second paper in the volume under consideration was published in Du Bois-Reymond's *Archiv* for 1873 (Heft. 3 and 4), so that only a brief abstract of it is here necessary. It contains a continuation of the researches published in the paper of 1871. Hitzig shows that when a weak current is applied to the surface of the brain, with gradually increasing intensity, the first muscular contraction which follows occurs when the current is reversed, the positive pole or anode being on the particular centre which is irritated. Later on, closing the circuit with the positive pole produces contraction, then reversing the current with the negative on the centre, and lastly closing with the negative pole.

The action of the anode is altogether more effective than that of the cathode or negative pole. With currents of slight or moderate intensity, even the shortest closure of the circuit diminishes the excitability of the brain towards the electrode used to close it, and raises it towards the opposite one. The influence of narcotics on the excitability of the brain is considered here. Hitzig found that when an animal is so deeply narcotised with ether that every trace of reflex sensibility has disappeared, the electric excitability is retained in one part of the brain while it is lost in another. It is only possible to remove it entirely for a very short space of time by means of ether; while even in the deepest sleep that can be produced by morphia, administered either subcutaneously or through the veins, the reaction of the brain never entirely ceases. The same is true of the condition of apnœa. An animal may be rendered apnœic in every possible way without the electric excitability of its brain becoming sensibly diminished or obliterated. In this paper Hitzig describes the result of continued researches on the centre for the individual movements of the eyes, which he was previously unable to isolate. He finds that it corresponds to a portion of the centre for the facial muscles described in his earlier paper, and specially to that part from which the muscles which surround the eye and which serve to protect it are innervated. This point is more fully entered into in the next paper. The second paper concludes with a consideration of the way in which the electrically defined centres on the surface of the brain are connected with one another, and with deeper parts; and from experiments made with insulated electrodes pushed into the brain-substance to various depths, Hitzig concludes (s. 49) that the centres have numerous communications (*Verbindungen*) with one another, even within the irritable portion of the surface of the hemisphere (*erregbare Zone*), and that these "become united in the lenticular nucleus (*Linsenkern*) of the corpus striatum into a great common nervous centre of complicated functions." We must refer our readers to the original paper for some remarks on the connexion between the electrically excitable motor centres and the influence of the will.

The third, and most important, paper contained in Dr. Hitzig's book is entitled "Critical and Experimental Researches into the Physiology of the Cerebrum; an appendix to the Researches of Professor D. Ferrier, of London." It consists of a detailed examination of Professor Ferrier's researches published in 1873, in which the differences between his results and those of Dr. Hitzig are minutely examined, with the general result of confirming the latter in the correctness of his previous views. We shall give the paper in pretty full abstract without comment of any sort.

Hitzig, in his preface, first refutes Dr. Ferrier's statements (*West Riding Reports*, vol. iii. 1873) that Fritsch and he had not succeeded in localising the centres for various functions on the brain's surface, because they had not employed induced currents in a thorough manner, and, moreover, had not "clearly defined the nature and signification of the results at which they arrived." It will be sufficient here to refer the reader to the paper No. I. in the present volume, or to the abstract in the last number of the *Medical Times and Gazette*. Hitzig

(a) "Untersuchungen über das Gehirn Abhandlungen physiologischen und pathologischen Inhalts." Von Dr. Eduard Hitzig, Privatdocent an der Universität, Berlin. Berlin: Hirschwald. 1874.
"Researches on the Brain, comprising Physiological and Pathological Treatises." By Dr. Edward Hitzig, *Privatdocent* in the University of Berlin. Berlin: Hirschwald. 1874.

goes on to show that Professor Ferrier has claimed as his own the discovery of after-movements and epileptic attacks after the brain had been tetanised with the induced current, which were fully described in Hitzig's first paper (s. 17); also the fact that the excitability of the brain is diminished by loss of blood (s. 18, 19), as well as all that is not contained in the passage quoted from the *West Riding Reports* (p. 32) above referred to. Hitzig complains(b) that Fritsch's and his experiments are only twice alluded to besides—viz., at p. 77 ("Experimental Researches"), where Dr. Ferrier states that they had produced paralyses in some experiments in which certain centres were extirpated, whereas Hitzig denies that anything of the kind was implied; and again at p. 49, where Dr. Ferrier obtained a movement of rotation of the head towards the right shoulder in one experiment on faradising a spot which seemed to correspond to Hitzig's centre for the muscles of the neck. The preface winds up with the following passage:—"Dr. Ferrier comes to a number of conclusions which differ from ours as to the localisation of the 'centres' and the limitation of the zone of (electrical) excitability, and in not a single instance does he say whether he agrees with us or not, nor does he even control his own experiments by counter-experiments when he finds they do not coincide with ours. While, therefore, protesting in the strongest manner in my fellow-worker's and my own name against such a proceeding, we are obliged to reclaim from Professor Ferrier what is our own property."

The second part of the paper discusses the methods which Dr. Ferrier has employed in his experiments. Hitzig points out that the former has not used a method that can be compared with theirs (electrisation with constant current) at all. Two experimentss on dogs with the induced current are described by Dr. Ferrier in his paper in the *West Riding Reports*, one a complete, the other an incomplete experiment. Both were interrupted by many epileptic attacks. "The brain in each was examined in eight spots, of which six gave different results in the two experiments; the seventh gave both times no result; the eighth, closure of the eyes in both. The first vivisection was made on the left, the second on the right side, and Dr. Ferrier inferred from the results of the experiments that the two sides of the brain are exactly symmetrical." Hitzig says that from *these* data he should have drawn an opposite conclusion. Hitzig next replies to the statement of Ferrier and others, that Fritsch and he had not used the *induced* current to any extent, and had obtained no satisfactory results with it. He denies that a single word of what Dr. Ferrier says about their use of the induced current exists in the paragraph (s. 16) to which his statement refers. The special reason why Hitzig rejected the induced current as the sole method of research was because the latter is so often followed by after-movements and epileptic attacks. They used it less frequently than the constant current; but they deny that they used it less extensively than Professor Ferrier, and ask pointedly how anyone but themselves is to know how extensively they used it. It was used as a help in diagnosis to get a longer movement of muscles than followed the simple twitch excited by the constant current. Hitzig and Fritsch wished, like Ferrier, to localise the cerebral functions if possible; and since it appeared that a constant current of a strength producing the minimum of muscular contraction (*Zuekungs-minimum*) was the only suitable one for the purpose, they made use of it, since strong currents affect not only deeper parts, including nerve-fibres on their way from other centres to the base of the hemispheres, but also surrounding parts of their superficial portion. The after-effects which follow strong induced currents applied to the brain are especially disturbing. "The brain is pressed up during them through the opening made by the trepan, and assumes a glazed aspect. Its irritability is afterwards enormously diminished, so that for a long time only currents of a strength whose depth of penetration into the brain-substance is quite incalculable will produce muscular contraction. . . . If the brains of such animals as have had epileptic attacks from the use of the induced current be examined by sections, extravasations of the size of a millet-seed to a pea are constantly found in their substance, and they are most frequently situated at the edge of the cortical layer. It is tolerably certain that part of these arise from the attack itself; but, on the other hand, more superficial extravasations are observed even when there has been no attack." Brains, also, which have suffered from epileptic attacks, regularly exhibit a very marked injection of the median surface of the anterior third of both hemispheres, and this Hitzig considers a proof "that the vascular excitation (*Gefasserregung*) which occurs in these attacks spreads over the whole brain."

These remarks are justified by the way in which Professor Ferrier has made use of strong induced currents in his researches, with the secondary coil pushed in to eight or even four centimetres from the primary; while, when he has been unable to obtain a contraction with a current of one strength, he has increased it until he did, or else has explained its absence by the 'exhaustion' of the animal, or the loss of blood it had sustained, or by some other experimental error, without testing his results by new experiments, or more simply by trying the effect of the current on those parts of the brain's surface which are always excitable—*i.e.*, the central portions. Hitzig expresses himself as follows on the use of strong induced currents:—

"If stimulation of the brain by strong direct currents is of doubtful propriety, that by means of induced currents is doubly so. The high tension of the latter permits of unipolar irritation, and of the extension of currents through the brain substance itself, as well as by means of the cerebro-spinal fluid. Thus, it is easy to convince oneself that a bridge of fluid between the electrodes which lie on the posterior part of the brain and the temporal muscle which has been turned back is sufficient to set the muscle itself, or large groups of other muscles, in action. If the fluid be removed with a sponge, the reflex movement ceases. In the same way currents pass to the dura mater, and produce reflex phenomena of every conceivable kind."

The last argument brought forward against the exclusive use of induced currents is, that even when weak they produce "after-movements," which sometimes so exactly resemble the primary movements excited by the stimulus of the electrodes, that they are liable to give rise to confusion. This is all the more likely, because with very weak induced currents several seconds sometimes elapse before the effect of the stimulus is visible. Hitzig asks: "Who would prefer exclusively to use a method by which the effects of irritation are produced when no irritation has been applied?"

He complains, too, of the want of knowledge shown by Professor Ferrier of the laws of the distribution of the galvanic current in "moist and non-prismatic conductors." For example, in his experiments on cats for the production of epileptic attacks, the spirals of the induction-coil were brought as close to each other as five centimetres, and in one of the five experiments (*Reizungen*) "the whole surface of the brain lay between the electrodes; in another, two-thirds of its surface; while in the three others the electrodes were placed transversely, so that at least *one* sulcus always separated them." Dr. Ferrier's own observation on this experiment is (*l. c.*, p. 39)—"The irritation was entirely confined to the surface of the hemispheres, the electrodes being simply applied without causing mechanical or deep-seated lesion in any case."

As to the kind of narcosis which Dr. Ferrier uses (the incomplete), Dr. Hitzig remarks that "he has only—as his own note-books show—most imperfectly fulfilled the intended purpose of preventing reflex movements by its means. . . . The animals not only make reflex movements, but they cry and bite, gnaw their own paws, wag the tail, dilate their nostrils, and put the tongue alternately in and out. That in such a narcosis the guarantee sought for by Ferrier is not fulfilled requires no proof."

(b) Hitzig is slightly in error here. There are two other brief allusions to his researches at pp. 30 and 39.

## DEGREES IN PUBLIC HEALTH AT THE UNIVERSITY OF EDINBURGH.

The following are the regulations of the University of Edinburgh with reference to the new degree of Doctor in Science in the Department of Public Health, which was noticed in our last:—

"I. That a Department of Public Health shall be added to the departments in which degrees in Science may at present be obtained in the University of Edinburgh.

"II. Candidates for graduation in Science in the Department of Public Health must be graduates in Medicine of a British University, or of such foreign or colonial Universities as may be specially recognised by the University Court.

"III. Candidates who have not passed an *annus medicus* in the University of Edinburgh must, before presenting themselves for examination, have attended as matriculated students in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations.

"IV. There shall be two examinations for the degree of Bachelor of Science in the Department of Public Health. Candidates who have passed the first examination may proceed to the second after an interval of five months.

"V. Candidates must produce evidence that, either during their medical studies, or subsequently, they have attended a course of lectures in which instruction was given on public health, and that they have studied analytical chemistry practically for three months with a recognised teacher.

"VI. The examinations shall be written, oral, and practical, and shall be conducted by University examiners selected by the University Court.

"VII. The subjects of the examinations for the degree of Bachelor of Science in the Department of Public Health shall be as follows:—

"FIRST EXAMINATION.

"1. *Chemistry.*—Analysis of air, detection of gaseous emanations and other impurities in the atmosphere. Analysis of waters for domestic use, and determination of the nature and amount of their mineral and organic constituents. Detection, chemical and microscopical, of adulterations in articles of food and drink, and in drugs. Practical examination, including at least two analytical researches.

"2. *Physics.*—Hydraulics and hydrostatics, in reference to water-supply, drainage, and sewerage. Pneumatics, in reference to warming and ventilation. Meteorology, and methods of making meteorological observations. Mensuration, in reference to the plans and sections of public and private buildings, mines, waterworks, and sewers.

"3. *Sanitary Law.*—Knowledge of the leading sanitary Acts of Parliament.

"4. *Vital Statistics.*—Knowledge of statistical methods and data in reference to population, births, marriages, and deaths.

"SECOND EXAMINATION.

"1. *Medicine.*—Origin, nature, and propagation of epidemic and contagious diseases. Prevention of contagion and infection. Endemic diseases, and the geographical distribution of disease. Insalubrious trades. Overcrowding. Epizootics, including pathological changes.

"2. *Practical Sanitation.*—Duties of a health officer in reference to water supply. Insalubrious dwellings and public buildings. Removal and disposal of sewage and other refuse and impurities. Cemeteries. Nuisances from manufactories, etc. Bad or insufficient supplies of food. Outbreaks of zymotic diseases. Quarantine. Disinfectants and deodorisers. Construction of permanent and temporary hospitals.

"VIII. Bachelors of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department on producing evidence that they have been engaged in practical sanitation since they took the said degree of Bachelor of Science, and on presenting a thesis on some subject in the Department of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the examiners.

"IX. The fees for the said degrees in Science in the Department of Public Health shall be—For the first examination for the degree of Bachelor, £5 5s.; for the second examination for the degree of Bachelor, £5 5s.; for the degree of Doctor, £5 5s. —£15 15s."

## FROM ABROAD.

### Wet-Nurses.

In an address delivered by Dr. Isidor Frankl, at the Buda-Pesth Medical Society (reported in the *Jahrbuch für Kinderheilkunde* for May, 1874), there occur several interesting observations concerning nurses.

Although a strong advocate for a mother's suckling her own child, there are circumstances, he observes, under which he opposes her doing so even when she is willing to suckle. 1. If the elder children, whom she has already suckled, exhibit signs of a diseased constitution or defective development. It is certain that in no way can we so ameliorate the constitution of a child as by means of the nourishment that is administered to it during the early period of its life. Metamorphosis of tissue is then very active, and in most cases, by the employment of a healthy and suitable nutrition, we are enabled to contend against diseased dispositions and to strengthen enfeebled constitutions. If the diseased conditions are due to abnormal nutrition, the choice of a proper nurse is the best mode of meeting these, while when they arise from hereditary influence they only become aggravated if the child is suckled by its mother. 2. When the mother is old, or has borne many children, the substitution of a nurse should be advised, for it is a matter of experience that children born of such mothers frequently become rickety.

When to these we add the great number of mothers who are not fit for suckling, or who, being fit, refuse to fulfil this maternal duty, it comes to pass that we are very frequently consulted in the choice of a nurse; but, although the weal or woe of the child so much depends upon this nurse, this point is touched upon in the most superficial way in the manuals, and during his studentship the future practitioner has little or no opportunity of examining into the fitness of nurses. Dr. Frankl states that his own experience in the matter has been obtained at the Vienna Foundling Hospital, where he has had the opportunity of examining 7000 or 8000 nurses. About 1200 of these are annually received into the institution after such examination, and as they remain there two or three months their efficiency or non-efficiency is thoroughly ascertained. After this probationary period the public are allowed, on paying a contribution to the hospital funds, to choose nurses from among these women, always being able thus at any time, day or night, to procure a nurse whose capabilities have been thoroughly tested.

In choosing a nurse, our attention must be directed to the state of the breast and nipple, and to the quantitative and qualitative condition of the milk. The nipple should be well developed and prominent. When of a small size, it is not necessarily inadmissible, as under the suction of a strong child it may become enlarged; but it is always best to have it well developed, as a child enfeebled by illness may be unable to grasp an ill-developed nipple, with which when well it was able to suck. In all cases it should project well; and a nipple that is well developed sometimes fails in this particular, its point remaining on the same level with the periphery of the breast, whence it is only separated by a deep furrow. Too large nipples cannot be grasped by infants having very small mouths. Cracks and sores should induce the rejection of a nurse. The breast itself should be firm, elastic, and moderately distended with milk, the skin being thin and exhibiting a network of distended veins. The right breast is usually larger, contains more milk, and is more liable to mastitis than the left. The size of the breast is not always proportionate to the supply of milk, and sometimes the quantity obtained from a small one is quite surprising. By gently compressing various portions of the breast between the thumb and forefinger we ascertain the condition of the glandular substance, and can procure a flow of milk from the nipple. When this is not obtained, the orifices of the milk-passages are temporarily obstructed, and the nipple requires to be fomented. Or this may depend upon the poor fare the nurse has been living on, a greater supply of milk ensuing on the adoption of a better diet. In choosing a nurse for a sick or weakly infant, it must be borne in mind that the milk is obtained with more difficulty from the breast of a primipara. As a general rule, the quality of the milk is proportionate to its quantity; but when the infant has not sucked for a long period, the accumulated milk has a watery appearance, so that a single examination may easily deceive. The amount of casein increases in proportion to the time that has elapsed after delivery, so that when we have to choose a nurse for an infant suffering from gastro-duodenal affections, we should prefer one whose child is younger than the one she is to suckle. Dr. Frankl does not think that microscopical or galactoscopical examination of the milk is of much use—the general appearance of the milk, and, above all, the thriving condition of the child, being our best guides.

Supposing the breast suitable, there are some other questions to be considered. The best age for a nurse is between nineteen and thirty. Prior to nineteen the nurse is often too weak; and after thirty, numerous labours and the hardships of life have often enfeebled her. A woman who has twice borne children is preferable, as, unless the infant is strong, it may have difficulty with the nipple of a primipara. With regard to the age

of the nurse's child, this should be as nearly as possible that of the suckling. Yet it is not necessary to be very scrupulous on this point; and for healthy new-born infants nurses are accepted at the Buda-Pesth Hospital who have been confined two or three months, this period being preferable, indeed, to immediately after delivery.

Here we may terminate our extracts from Dr. Franki's address, as the next passage relates to an examination of nurses at the Hospital, to which no woman could be subjected in this country. After adverting to defective teeth and marks of scrofula as causes of rejection, Dr. Frankl says that the nurse is placed in the horizontal position, in order that a thorough examination may be undertaken of the vulva, the pubes (in search of lice), the inguinal region, the nates, and the knee- and elbow-joints, to ascertain whether psoriasis exists. After undergoing this ordeal her own child is produced, and if its health and appearance are satisfactory she is admitted as one of the nurses who may be hired. The author truly says that nowhere else could persons in search of wet-nurses obtain such security of their efficiency as at the Buda-Pesth Foundling Hospital.

### Intravenous Injection of Chloral.

The induction of anæsthesia by the injection of chloral into the veins, practised during an operation by Prof. Oré, of Bordeaux, and related by him (*Medical Times and Gazette*, May 23, p. 274) to the Académie des Sciences, has given rise to serious animadversion both in the Société de Chirurgie and in the Académie de Médecine, M. Bouillaud having also communicated M. Oré's case and prior experiments to the latter body. M. Bouillaud at a subsequent meeting of the Academy observed that he thought very exaggerated views were held as to the purport of M. Oré's communication. This observer first commenced injecting chloral into the veins of animals with the view of testing the veracity of the statement that this substance was an antidote to poisoning by strychnine. This he found it not to be, and then went on to ascertain how far it might be useful in tetanus. He injected a small quantity of chloral into the veins of a patient suffering from traumatic tetanus, who recovered, and subsequently he employed it as an anæsthetic in two operations. The outcry this has given rise to is only, M. Bouillaud observes, the same that is met with whenever any new proposal is made. Since he brought this case before the Academy, M. Bouillaud has been furnished with the particulars of another successful one, communicated to him by Professors Deneffe and Van Wetter, of Ghent. It was a case of cancer of the rectum, recurring in a patient fifty-seven years of age. Eight grammes of the mixture (ten parts of chloral to thirty of water) were injected very gradually during forty-five minutes into a radial vein by means of a very delicate trocar. No accident whatever occurred, the patient falling into a profound sleep. After the operation, all means that were tried failed in arousing him, and, in fact, he did not awake until eleven hours after. He then found himself in a state of great comfort, and a week afterwards (the date of the last report) he was going on quite well. M. Bouillaud did not wish to be the panegyrist of this new method, but he thinks that these three successful cases justify further trials.

M. Gosselin protested against this easy reception of venous injection of chloral in place of the employment of chloroform or ether, considering it as a procedure fraught with danger and inconvenience, without possessing any counterbalance of advantages. Certainly, as M. Bouillaud states, there may be no inconvenience in opening a vein (and we may observe that perhaps he has caused more veins to be opened than any other practitioner), but the patient is still exposed to the chance of suppurating phlebitis; while a caustic fluid is introduced which is of a very irritating nature, and may itself induce phlebitis. The experiments of MM. Colin and Mialhe also have shown that it may give rise to local coagulations or migratory clots, and therefore all the accidents consequent on embolism. The very prolonged sleep, also, which is induced, places the operator in a very embarrassing position. No advantage over the ordinary means of inducing anæsthesia is pretended, while the latter can be graduated and terminated according to the exigencies of the case. M. Bussy pointed out the inconsistency of one of the reasons advanced in favour of this procedure—viz., the danger of chloroform,—whereas chloral itself acts upon the economy only by reason of its transformation into chloroform. M. Trélat observed that a surgeon can scarcely listen with patience to the recommendation of this procedure by M. Bouillaud on the strength of the three cases in which it has been employed, and in face of the millions of cases in which chloroform has now been used. He regards as very reprehensible such light adoption of a measure which has often proved so dangerous as intravenous injection.

### Ligature of the External Iliac in Elephantiasis.

At the recent meeting of the Congress of German Surgeons, Professor Hueter, of Greifswald, exhibited a patient in whom he had in 1870 tied the external iliac for elephantiasis, which had in a very marked degree followed ulcer of the leg and repeated attacks of erysipelas of the extremity. The effect of the operation was very satisfactory, but about a year after its execution, amputation of the leg had to be performed on account of extensive and intractable ulceration. At the time of the amputation not the slightest vestige of the elephantiasis remained, nor has this recurred, although, when the ligature was tied four years ago, it extended as far as the inguinal region. Professor Heuter has operated four times, meeting as he does with a great number of these cases, the disease seeming to be endemic in Mecklenburgh, Pomerania, and West Prussia. Three of the cases recovered, and one terminated fatally, the patient becoming the subject of delirium tremens, and dying with the septic process set up near the site of the ligature. Another patient exhibited was a woman, upon whom the ligature had been applied five years before for an elephantiasis, accompanied by so horribly stinking a discharge as to render her existence in society a nuisance. The limb is now very nearly in a normal condition, and she is able to go about her household affairs. The first patient alluded to has been obliged also to submit to the removal of a testis on account of caseous disease of it; so that he has undergone three operations, and yet is quite well, and even—at all events, temporarily—cured of a marked propensity for drinking. It is to be remarked that at the amputation of his leg the bleeding from the tibial arteries was so slight that there was great difficulty in detecting their orifices at the surface of the stump, and tying them was scarcely necessary.

Professor Bryk, of Cracow, observed that he had tied the femoral artery immediately under Poupart's ligament in three cases. The first was a peasant woman, twenty-nine years of age, in whom the elephantiasis was complicated by an ulcer of the leg. After the ligature the swelling was much reduced, and the ulcer cicatrised. In less than a year, however, amputation of the leg had to be performed, partly on account of a recurrence of the tumour, and partly because of an obstinate spreading of the ulcer. The patient did well, and is still living. A young woman, aged twenty, had a relapse some months after the ligature, and having undergone amputation of the leg on account of the dreadful pain in the foot that accompanied the swelling, died of pyæmia. The third patient, a blacksmith aged thirty, found, ten months after the operation, that the tumour was recurring, but by aid of a flannel roller he has been enabled to prevent its reaching its former size.

Professor Bardeleben observed that he found the disease as frequent in Berlin as in Pomerania. The patients, however, are very unwilling to be operated upon. He prefers compression, either digital or by means of a compressor, as a much less dangerous procedure than ligature of the iliac or femoral, and by its means he has treated two cases with apparent success. One of these he has seen three years after leaving the hospital, and then the disease had not reappeared, but ulceration had broken out in the leg.

## REVIEWS.

*The Science and Practice of Medicine in Relation to Mind, the Pathology of Nerve Centres, and the Jurisprudence of Insanity.* By J. Thompson Dickson, M.A., M.B. (Cantab.), Lecturer on Mental Diseases at Guy's Hospital, late Medical Superintendent of St. Luke's Hospital. London: H. K. Lewis. 1874.

This book has a certain sad interest attached to it, inasmuch as the author is known to have literally had the last leaves of it in his hands at the moment of his sudden and untimely death. It consists of a course of lectures originally delivered in Guy's Hospital, and reproduced in the present form apparently to serve as a text-book for students and a volume of reference to practitioners. The writer of a book on diseases of the mind has more than ordinary difficulties to surmount. The teaching of insanity, like that of the other departments

of medicine, is daily becoming more practical; but even for the lecturer it is no easy matter to illustrate his verbal descriptions by means of suitable clinical material. Many of the lecturers on insanity in our medical schools endeavour to remedy this unfortunate state of matters by affording the student an opportunity of visiting an asylum, but we fear the men do not always avail themselves of the advantage. The lectures are therefore, in many instances, of a necessarily undemonstrative character, they are received with corresponding apathy, and the impression left upon the mind of the student is superficial and temporary. The difficulties are even greater, as we have said, in written lectures on this subject, for the number of possible aids to simple description is still further reduced. Photography may be of some assistance in this direction, but after all the chief reliance must be placed by the writer on the accuracy and clearness, and even more on the attractiveness of the picture which he presents to the reader. The author of the work before us seems to have been fully impressed with this belief. More than once he says that "insanity is something which is to be seen and recognised rather than described." He has striven, and we think very successfully, to seize upon the striking features of the various forms of insanity, and graphically reproduce them; and has used to the best advantage illustrative material in the form of narratives of interesting cases, with a view to rivet the student's attention and simplify the recognition of the like. This method of description is, indeed, carried to the extreme in some parts of the book, where the account of the disease becomes a running commentary on cases.

Without allowing the clinical portions of his book to suffer, the author has devoted an unusually large part of it to the pathology and morbid anatomy of insanity. "I have given," he says, "the pathology of nerve centres a prominent place in this work, because I felt that the only successful manner in which mind could be studied was in its relation to organisation, and that the surest means of comprehending abnormal conditions of mind was by gaining a good knowledge of the abnormal tissues upon which it depended." Few will question nowadays the wisdom of this plan. Where symptoms can be accounted for by anatomical change there is no doubt that clear details of the pathology will be of extreme value in leaving the reader with a permanent grasp of the insane condition. Unfortunately the conditions on which the disorder of the mind depends are often purely dynamical, and even permanent lesions connected with chronic insanity are frequently beyond the appreciation of all but practised histologists, or altogether obscure. It gives us all the more satisfaction on this account to find the author of the book before us, who had evidently worked hard and successfully at the morbid anatomy of the brain, dwelling at length upon it. In discussing the pathology of mania, melancholia, and especially progressive paralysis and insanity, he has fully detailed what is known of the morbid physiology and anatomy of these states; and, however little the settled anatomy of insanity may actually amount to, we cannot but praise this honest effort to give it a prominent place in the student's mind.

The sections on treatment are very good. The practitioner will find in this book many useful directions on the management of acute and chronic madness. We may cite as an excellent example the directions for the treatment of a case of acute mania. Many of the remarks, also, upon the relation of disease of the mind and brain to other diseases—such as phthisis, gout, rheumatism, alcoholism, etc.—will amply repay perusal.

On the whole we heartily recommend this work as a text-book for students of insanity. The descriptions of disease which it contains are made unusually clear and interesting, so that to read it is a pleasure instead of a labour. Discussion has been judiciously avoided, the pathology is practical and exhaustive, and the treatment definite, carefully arranged, and rational.

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*On Guard.* A Temperance Magazine, published monthly at Agra, India, for the Soldiers' Total Abstinence Association.

The March number of the above magazine has been forwarded for our inspection. Its contributors and contents are certainly above the average of those generally met with in literature of this description. Its object is, of course, to inculcate the advantages of sobriety to all those who enter upon a soldier's life, and, as its distribution is arranged to include nearly the whole of India, it circulates amongst the whole of the British troops doing duty in the three presidencies. From the various reports contained in it, it would appear that the Association is gradually beginning to obtain a hold—naturally with good results—in several of the European regiments at present quartered in India.

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# FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, June 8.

Annual Meeting of the American Medical Association at Detroit.—Distant Visitors—Proceedings—Judicial Council of the Association—Canadian Delegates and Visitors—Address of the President, Dr. J. M. Toner: Province and Policy of the Association; its Organisation; other Medical Societies in the United States; American Medical Statistics; Advance of the Profession; Proposed International Medical Congress.

The annual gathering of American physicians—the chosen representatives of State and county medical societies, and of hospitals and colleges, of every section of this widespread country—was held this year at Detroit, Michigan. The "American Medical Association," as this collective body is called, met on Tuesday, June 2, and continued in session for the greater part of four days. The meetings are held in such diverse portions of the United States that no section of the country feels slighted in its non-selection as a location for the reception of this annual outpouring of medical wisdom and experience. Two years ago, for example, Philadelphia greeted with her warmest hospitality the gentlemen composing the Association of 1872; last year St. Louis, one of the great cities of the West, eagerly embraced a similar opportunity; and Detroit, a charmingly attractive city of 100,000 inhabitants, in the immediate vicinity of several of the great northern lakes—or inland seas, as they have been very appropriately termed,—extended to hundreds of the American physicians a hearty, cordial, and enthusiastic welcome. Next year Louisville will be the place of meeting, and the South-West will thus enjoy its turn in the annual round of reception; while Philadelphia will probably, in 1876, represent the East in a similar way at a time when it is celebrating the one hundredth birthday of the nation. Four hundred and twenty-seven delegates attended the recent meeting at Detroit, and it speaks well for the *esprit du corps* of the profession of this country when we glance at the long list of names of those present, and consider for a moment the vast distances travelled by many who abandoned temporarily the comforts of home and the duties of practice, to greet their medical brethren in their annual efforts to preserve and elevate the dignity of the profession. By the time the delegate from California reaches his remote home, he will have traversed the magnificent distance of 5000 miles; while those who represented Philadelphia travelled a distance of 1400 miles; and this latter figure is a modest one compared with the 2600 miles *in transitû* of those from Texas, or the 2950 miles of the Colorado delegates. These are remarkable figures, but they typify the earnest and zealous spirit of the American character, which is not, in a worthy cause, subdued by the obstacles which nature has thrown in its way in the distant separation of the various sections of the country. To the American physician this passing allusion is especially applicable on occasions like the present.

This meeting has undoubtedly been the most practically interesting yet held, and will do more to popularise the Association among the profession at large than any of its predecessors. It seemed to settle down to actual work with more zeal and with greater earnestness of purpose, and with a determination that when the time comes for it to be judged by its results, there will be something more than the mere chronicle of friendly greetings, and of discussions of ethical questions, and the record of commonplaces. A great difficulty under which the Association has laboured, and still labours, is the fact that its proceedings are mainly accessible only in the brief accounts given in a few of the medical journals soon after the annual meeting, or in the sometimes formidable volume of *Transactions* which the members alone receive, and only occasionally read. The great body of the medical profession merely skim hastily through the brief records, but

they miss the spirit of the hour or the moment in which the various topics interested the Association, and they find but little to excite or entice them in the private minutes of the proceedings. The American Medical Association is to a great extent unfamiliar to the great masses of the profession as a subject of special interest, because no decided measures have yet been taken by it to touch the pulse of each and every member. It has no organ, and would not, even if possessed of such an adjunct, be able to extend its influences sufficiently far; but it should adopt some method to excite the interest and curiosity of every county and State medical society in the land. Its papers should be widely disseminated, its proceedings freely imparted, its advantages thoroughly explained; and some plan will, doubtless, in time be devised to accomplish these ends. One great element of harmony in this recent meeting consisted in the removal of all disturbing causes from the actual proceedings of the convention, by the establishment of a judicial council of twenty-one members by the action of the previous meeting at St. Louis, whose duty it is to take charge of all questions of a purely ethical or judicial character; so that the time can now be be profitably spent in the discussion of matters of more vital moment.

It was a pleasant feature of the early proceedings of this meeting to find so cordial a feeling of professional brotherhood existing between the delegates and their medical friends of Canada, a large number of whom participated by invitation in the working of the Association. The little town of Windsor in Canada is on the opposite side of the river to Detroit, and the letters "V.R." are conspicuous here and elsewhere along the Great Western Railway, over which most of the eastern and northern United States delegates must travel to reach the place of meeting, reminding us constantly that we were in her Majesty's dominions. Invitations were cordially extended to our Canadian medical friends, and accepted, and Dr. Richardson and Dr. Hall, both of Toronto, made some interesting and pertinent remarks on the occasion, the latter, near the close of the meeting, introducing the following resolution:—"That the Canadian physicians attending this meeting of the American Medical Association cannot take their departure without giving expression to their sense of appreciation of the fraternal kindness extended to the medical profession of Canada by favouring them with invitations and bestowing upon them such generous hospitality."

Dr. Hall said that the Canadian delegates had derived very great benefit from the meeting. They had become aware that medical science had advanced to a very high point in the United States, and the result of the meeting had been to increase the liberality of all the delegates, who had learned to respect each other, and to labour more mutually for the good of the profession. He expressed the goodwill which Canadians and Englishmen feel towards the Americans, and especially to men engaged in similar professions. He spoke very wittily of the peculiar differences between American and Canadian institutions, and of the different forms of government in Great Britain and the United States, alluding to the good-looking Queen who governs the former, and to the rather grim-looking soldier who rules over the latter. In conclusion, Dr. Hall trusted that they might next year see a large number of the members of the American Medical Association at the meeting of the Canadian Society.

Dr. Richardson said that he had not felt that he was a Canadian or a stranger. Both by members of the Association and by citizens of Detroit they had been received with such friendliness that they felt that no words of appreciation could be extravagant.

Dr. N. S. Davis, of Illinois, responded to the kind sentiments expressed by his Canadian *confrères*. He had himself been in attendance at the meeting of the Canadian Medical Association, and had received the kindest and most hospitable treatment. He rejoiced that the profession to which he belonged contained such ornaments to medical science as are now to be found in Great Britain, Canada, and the United States, and that the science has no boundaries save the desire to benefit the human race.

The excellent address of Dr. J. M. Toner, of Washington City, President of the Association, presented numerous facts and views of great moment. I will only allude here to such as may possess a general interest. He stated that there had been from the first meeting of this Association a contrariety of opinion as to its true province and best policy. Some would have it limited in number, exclusive and dictatorial, if not coercive, in its relation to the profession at large; others would have it abandon all semblance of a convention, and devote its time to discussion of scientific facts and the recent discoveries in medicine, to the exclusion of all other questions and purposes. A few would have it an arena where any and every subject that can enter the mind of a medical man might be introduced without order or even definite purpose. Others would be content and feel rewarded for the expense and loss of time in the enjoyment of the social elements so lavishly evoked on all these occasions. The present arrangement for scientific discussion, the exchange of professional views, and of social reunion is, however, as good a general policy as can at present be adopted.

The Association was organised in the City of New York, on a basis to represent the regular profession of the United States, on May 5, 1846, on a call of the Medical Society of the State of New York for a national medical convention, chiefly through the exertions of N. S. Davis, M.D., then of Binghamton, New York. All medical societies and institutions throughout the United States were solicited to join in the measure. The institutions represented in the first meeting were—State medical societies, 7; local medical societies, 13; colleges, 14; hospitals, 2; total, 36 institutions, from 17 different states, sending in all 129 delegates. At that time there were but about 125 medical societies and institutions of all classes in the United States; at the present time there are over 1200. The first medical organisation in the United States was probably one in Boston in 1741; another was formed in Philadelphia, Pennsylvania, in 1765; in 1766 the New Jersey Medical Society was formed; in 1773 the American Medical Society was formed in Philadelphia, Dr. William Shippen president; in 1776 the Delaware Medical Society was formed; in 1781 the Massachusetts Medical Society; in 1784 the Connecticut Medical Society; in 1787 the College of Physicians, Philadelphia; in 1789 the Medical Society of South Carolina; in 1791 the New Hampshire Medical Society; in 1799 the Medical and Chirurgical Faculty of Maryland.

The American Medical Association, the President also stated, has erected a standard of medical excellence and ethical *esprit du corps* never before attained in America, and has persistently and publicly held it up for admiration and adoption. It has drawn with distinctness a line that separates the regular from the irregular practitioner, which will in the future, as in the past, be firmly maintained. Some of the statistical facts detailed by him in this address are of great interest. He stated, for example, that the number of physicians in the United States who in 1870 paid internal revenue tax was 50,000. This is in the proportion of one physician to every 760 of the whole population. The last United States census, taken in the same year, in the return of persons by occupation, gives 62,383 as physicians, male and female, which is in the proportion of one physician to every 618 of the total population. In France and England there is but one physician to every 2000 of the population, the proportion being much larger, however, in the cities than in the rural districts. This is particularly noticable in states in which there has been recent legislation affecting the profession and public health.

It is a source of sincere congratulation, he observes, that our medical educational institutions are rapidly enlarging and perfecting their curriculums, and becoming more thorough and efficient in teaching the science of medicine. In 1859 the Chicago Medical College (now the medical department of the North-Western University of Illinois) adopted the three-years course and a system of graduated classes and a lecture term of six months. In 1872, Harvard University adopted practically a similar course. The system is working well in both the institutions named. It has so much to recommend it, that it is to be hoped all our first-class colleges will adopt it within a very few years.

In 1870-71, returns from fifty-one medical colleges show 5776 matriculants and 1698 graduates. In 1871-72, returns from thirty-six of the sixty medical colleges show 4956 matriculants and nearly 1400 graduates. In 1873, in fifty-nine regular medical colleges there were 780 instructors employed. There were 6491 matriculant students, of whom 1941 received the degree of Doctor of Medicine. From records in his possession, he finds the average age at which 2000 American physicians died was fifty-eight years. The average age at which 1000 United States Congressmen have died is sixty-two years. The average age at which 1200 Presbyterian clergymen of the United States died was fifty-seven years.

The earliest law passed by any of the American colonies

having reference to the medical profession was the Ninth Act of the General Assembly of Virginia, passed October 21, 1639, to compel physicians and surgeons to declare on oath the value of their drugs and medicines. This law was revised and amended in 1645-46, and again in 1657-58. The earliest law concerning medical men passed in Massachusetts was an Act in 1649, applicable to chirurgeons, midwives, and physicians. The earliest legislation that established or regulated the fees of physicians in America is the Act of Virginia, August, 1736, entitled "An Act for Regulating the Fees and Accounts of the Practisers of Physic." This Act authorises the courts to make a distinction between the amounts charged by the physicians regularly educated in medicine and those who have been merely apprenticed.

The number and character of the medical works and journals annually published in the United States show, he says, that there is a rapidly increasing demand by the profession of the country for the most recent views in medicine, and particularly of the leading histologists and pathologists of the world. Instead of the few, the majority of American physicians are becoming industrious readers and careful students, and demand the latest and most scientific works. Twenty-five years ago it would have taken eight or ten years to bring new views fairly before the profession for trial, that will now be read, revised, tested, confirmed, or contradicted within six months by scores of different observers throughout the country.

Dr. Toner also recommended that the Association take into consideration the question of the desirability of encouraging the formation of an International Medical Congress. This can be done by uniting and securing the co-operation of the national medical societies of the different sections of the world. The Congress ought to meet regularly every five years, or oftener, in some one of the different national capitals. The organisation should be composed of delegates eminent in medicine, to be appointed from the several national medical bodies, in the proportion of say two members from each body, and an additional delegate for every one hundred active members. The purpose of the Congress should be to confer and consider from an international point of view all questions that are promotive of public health, the advance of medical knowledge, and the true interests of the profession throughout the world. The present rapid and frequent communication of all civilised countries with each other makes us all akin, and the advancement of science renders this kind of professional intercourse desirable, to the end that frequent and free exchange of all that is known to be new and useful in medicine may be speedily brought to benefit mankind in every clime. He suggests that an effort be made to have the first meeting held in Washington City some time during the summer of 1876, while the American International Exposition is being held in Philadelphia.

Such are some of the most important points in the address of the President; we have devoted considerable space to them on account of their intrinsic interest to the whole profession.

## GENERAL CORRESPONDENCE.

### CREMATION.

Letter from Mr. J. Dixon.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is a common device to employ a fine word to designate an unpleasant thing; and this, I think, the advocates of burning the bodies of our dead are doing when they speak of "cremation." The plan they advocate is really that we should *bake* our deceased relatives in a very hot oven until everything combustible is destroyed, and nothing remains but the phosphate of lime of the bones and teeth. We know that in Latin *cremo* is to burn, *crematio* the act of burning; and *cremation* was, I believe, first used by that quaint writer, Sir Thomas Browne, in his "Urn Burial." It is an awkward word, for we have no equivalent for its root-verb. I can say "I have burnt my father," or "I have baked my mother"; but can I say "I have *cremed* or *cremated* them"? There is a sort of grand classical sound in the phrase "ashes of our forefathers," but who, nowadays, would care to keep in an urn a little phosphate of lime, to represent the body of some lost and loved one? We know that when we consign a body to the grave a process of decomposition takes place, which is revolting to think about; and so the great majority of mankind avoid thinking about it at all, but slur it over with some such phrase as "ashes to ashes, dust to dust," the grave really containing neither one nor the other. It will not do to analyse all this. To "bury our dead out of our sight" is the instinct of nearly all nations. We can avoid dwelling on the physical horrors of the tomb, but can hardly escape the odour of a dead friend's body burning away in an oven. The advocates of cremation would do well to read some excellent remarks recently published in your journal, describing what the writer has himself witnessed of the process in India.

June 30. I am, &c., J. Dixon.

### WESTMINSTER HOSPITAL AND THE FEMALE MEDICAL STUDENTS.

Letter from Mr. George Cowell.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you allow me to contradict the statement which appeared in your last issue? It is true that a proposition was made by some ladies to the Westminster Hospital Medical School for the formation of a separate department, but the resolution of the Council, of which I append a copy, will show that there is no intention of complying with the request.

I am, &c., George Cowell, Dean.

(*Copy.*)

"That the Council of the Westminster Hospital Medical School, after discussing a proposition from certain ladies for the formation of a Female Department of the Medical School, decide that such proposition be declined; and that the Dean be requested to hand a copy of this resolution to each of the medical journals."

*** For the sake of the old and famous school of Westminster, we are glad to receive the above authoritative contradiction of an *on dit* which Mr. Cowell's letter shows was not without some foundation. We would suggest, however, that the answer would have been more satisfactory if the exact date of the above resolution, which Mr. Cowell seems most unaccountably to have omitted, had been given.

## REPORTS OF SOCIETIES.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 26.

Dr. C. J. B. Williams, F.R.S., President, in the Chair.

Among the books presented to the Society's library was a MS. copy of the Clinical Lectures of Dr. Rutherford at Edinburgh in 1750.

In reply to a question from the President regarding the circumstances which brought this interesting volume to light, Dr. George Harley remarked that some of the Fellows would perhaps remember that at the opening of the last winter (1873) medical session, Dr. Mapother, in his introductory address(a) at the Royal College of Surgeons, Ireland, stated that "clinical teaching was generally supposed to have originated during the present century in Dublin; but he showed that, as far back as 1785, four wards in Mercer's Hospital were set apart for the reception of cases for the lectures of the Royal College of Physicians." As these remarks seemed to imply that systematic clinical lectures originated in Dublin, Dr. George Harley, having reason to believe that lectures of this kind had been regularly delivered in the Edinburgh Royal Infirmary by successive generations of teachers during the whole of the latter half of the last century, entered a protest in the next week's journal(b) against Dr. Mapother's remarks, and gave a quotation from Thomson's "Life of Cullen,"(c) where it is stated that "in this country the merit of first proposing to explain in clinical lectures the nature and treatment of the cases of patients admitted into a public hospital belongs to Dr. John Rutherford, Professor of the Practice of Physic, to whom this privilege was granted by the managers of the Royal

(a) *Medical Times and Gazette*, November 8, 1873.
(b) *Medical Times and Gazette*, November 15th, 1873.
(c) Vol. i., p. 101.

Infirmary of Edinburgh in the year 1748." This protest brought forth several letters, both in the weekly journals and to Dr. Harley privately, and, most fortunately, among the latter, one from Mr. Henry Vevers, surgeon, Hereford, informing Dr. Harley that he had in his possession a MS. volume of the said Dr. Rutherford's original lectures; and, although there was no date on the title-page, there were dates in the body of the volume which showed them to have been written in or about the year 1750. Mr. Vevers knew nothing of the history of the MS. further than that he found it in the library of his predecessor. Judging from the appearance of the volume, the old-fashioned phraseology and style of writing, there seems to be no doubt of the authenticity of the MS. But it is so carefully written, and the periods are all so well turned, that the work appeared, as the speaker said, more like that of a copyist, who probably transcribed it, for the purpose of sale, from the original MS. lectures of the Professor, than the work of an actual student.

The volume which Mr. Vevers has thus kindly presented to the Society is marked volume i.; but, unfortunately, nothing has as yet been heard of the existence of volume ii. Dr. G. Harley then remarked that the library was already in possession of two of the MS. case-books of the celebrated Dr. Cullen, and it would be a point of no mean importance for it to obtain possession of the second volume of Rutherford's lectures, representing, as they do, the earliest attempt at systematic clinical teaching ever made in the British Isles.

Mr. W. Fairlie Clarke communicated, for Dr. Edward Sparks, a paper "On a Disease of the Skin caused by the Acarus Folliculorum; illustrated by Cases observed in the Dog." The author first reviews the literature relating to the acarus folliculorum, and points out that there has been hitherto nearly a universal scepticism with regard to any injurious effect of that animal on the skin. Only Dr. Gruby (*Comptes-Rendus*, 1845, and *Monthly Journal of Medical Sciences*, November, 1846) has described a disease produced by inoculating a dog with the acarus, by which the animal lost its hair, and the skin became inflamed and covered with scabs of purulent exudation, while its strength became much reduced. Gruby's researches have, however, never received the credence they deserve, and their accuracy has even been doubted (for example, by Dr. Neumann, of Vienna, in 1873). Dr. Sparks has, through the kindness of Mr. Duguid, the able veterinary surgeon to the Brown Institution, been enabled to examine three cases of a disease occuring idiopathically in dogs, and similar to that described by Gruby; and he has examined the skin microscopically. The external features of the disease had a considerable resemblance in all three: these consisted of greater or less loss of hair over the whole body; scaliness, partly epidermic and partly exudative; abscesses resembling acne studded over the body and legs; gradual emaciation and loss of strength; and resistance to all treatment. All the dogs finally died, without any internal disease being found sufficient to account for death. Other dogs in the same kennel caught the disease from one of the affected dogs. Sections of the skin showed, microscopically, enormous dilatation of the hair-follicles and sebaceous glands with the acari and epithelial *débris;* subcutaneous abscesses containing acari, and accompanied with a fine nuclear infiltration of some parts of the skin; atrophy of the papillæ and sheaths of the hair-follicles; and, in one case, growth of nodules of a lymphatic tissue, especially around the coats of the sweat-glands and the hair-follicles most affected. The existence of such a disease as the one here described appears not to be generally known to veterinary surgeons, and it is not, as far as the author knows, described in any book. Seeing what mischief the acarus can produce in the dog, we should not be too hasty in denying the possibility of its ever causing a disease of the skin in man, and its relation to some forms of acne deserves further investigation. At any rate, it is a most interesting fact that a creature which we know *may* exist in man without doing any harm should produce such a serious disease in an animal like the dog. The author concludes his paper by thanking the authorities of the Brown Institution for the assistance they have afforded him.

Mr. Fairlie Clarke said that the paper was of interest in drawing attention to the point whether the acarus folliculorum produced disease in the cutaneous system of man or not. It certainly was not harmless in dogs, since it gave rise in them to formidable and even fatal results. Dr. Sparks had shown him a few days ago, at the Brown Institution, a dog which had been affected by the disease for several months in spite of all treatment. It had lost nearly all its hair, and had several large abscesses about the neck.

Dr. Symes Thompson hoped that more observations made at the Brown Institution would be brought before the Society. This was one of a series of investigations which threw light upon the diseases of man.

Dr. Sparks said that he had not thought it necessary to give any description of the acarus in his paper, as Mr. Erasmus Wilson had done that so admirably in the *Philosophical Transactions* some years ago. The acarus folliculorum must not be confused with the acarus scabiei, as they are not in any way related to one another. The acarus folliculorum of the dog was identical with that found in the sebaceous glands of the face in man, and he thought, seeing the effects of the acarus on the skin of the dog, it might possibly give rise in man to some forms of acne, and the question required further investigation. He corrected a statement made in the paper, that some of the healthy dogs which had caught the disease from a dog with the acarus had been cured by parasiticides. None had as yet recovered, and they all had to be killed.

A paper by Drs. J. Lockhart Clarke and W. R. Gowers was read, "On a Case of Pseudo-Hypertrophic Muscular Paralysis." The case is that of a boy, aged fourteen, who died with general muscular atrophy. He was a patient of Mr. William Adams. The muscles of the calf had been, from an early age, and until within two or three years of his death, considerably larger than natural. Difficulty in locomotion, due to muscular weakness, had been noticed from the time when he commenced to walk at three years old, and had increased until he ceased to walk at eight, and to stand at ten. During the last three years of his life the calves lessened in size to below the normal, and the muscles of the thighs and arms became atrophied. At the time of his death he could not move the hip-, knee-, or shoulder-joints; he could move the ankle- and elbow-joints a little, and the fingers well. There was but slight difference between the two sides. The flexors of the hip- and elbow-joints were contracted. There was no affection of mind, or of cranial nerves, or of the sphincters. He died from a low form of pneumonia. After death the muscles showed in various degree the changes, naked-eye and microscopic, characteristic of the "pseudo-hypertrophic muscular paralysis" of Duchenne. The gastrocnemii looked like lumps of fat, and under the microscope consisted of fat-cells, among which still ran some muscular fibres, accompanied by a good deal of connective tissue. Many of the fibres were healthy in appearance and size; many were narrower than normal, still preserving, however, their transverse striæ, even when reduced to one-quarter of their normal width. Many fibres were narrower at one place than at another. Very few fibres, except those greatly reduced in width, presented any granular or fatty degeneration. The deltoid and biceps muscles on each side presented similar changes, but they contained less fat and more fibrous tissue; the brain and medulla oblongata and meninges of cord were healthy. The spinal cord itself presented various changes throughout the cervical, dorsal, and lumbar regions: the most important was disintegration of the grey substance of the anterior, lower, and central portions of each lateral half; in some places this had occurred chiefly around the vessels, but in others it involved extensive areas, especially in the cervical enlargement, the upper part of the lumbar enlargement, and the conus medullaris. About the level of the last dorsal nerves it had amounted to almost total destruction of the grey matter on each side between the posterior vesicular columns and the intermedio-lateral tract. Other changes were disintegration of nerve-roots, commencing sclerosis of the lateral and posterior columns, destruction of the white commissure in various places, dilatation of vessels, and extravasations. A comparison of the symptoms and of the character of the muscles in this case with those of other cases left, the authors believed, no doubt of the identity of the disease. The spinal cord changes were much greater than any previously found, the examinations of Charcot and Cohnheim having given negative results, and the changes found by Barth and by Kesteven having been slight.

Dr. Buzzard inquired whether the authors of the paper thought that the circumstance of changes in the spinal cord having been reported absent in previous cases, and present in this, which seemed to be a peculiarly advanced one, threw any doubt upon the correctness of the now generally received opinion that, in cases of muscular atrophy and analogous conditions, the central changes preceded and induced those in the muscular system.

Dr. Lockhart Clarke said that the possibility of muscular disease giving rise to central disease had been abandoned long ago. He wrote a paper on this subject, published in the *Transactions* four years ago, in which he stated the result of the examination of the cords in men whose thighs had been amputated many years previously, and compared them with the cords of men who had suffered from muscular atrophy. In the first instance there was atrophy of nerve-cells, but no disease, no disintegration or morbid process; in muscular atrophy the changes were similar bilaterally. Charcot, of Paris, had examined cords as he had done, and he agreed with him that the change in the cords of men whose legs had been amputated was quite different from that in muscular atrophy. Because this change had not hitherto been observed in the cord in pseudo-muscular paralysis there was no reason to suppose it did not occur. He had had a cord from a case under Mr. Adams given him four years ago. The cord had been hardened in chromic acid; it was too friable to examine thoroughly; he had, however, made some sections, and satisfied himself that there was granular degeneration.

Dr. Greenfield asked if any change in the temperature of the parts had been noticed.

Mr. W. Adams said he was not aware of the change in the temperature of the parts till Dr. Ord's paper had been brought before the Society last year. He had had the temperature taken in two cases, but it was not found to be altered. Though the cases were rare, yet he had seen many such now. The disease had often been mistaken, and even now at times was not easily diagnosed, and called "infantile paralysis."

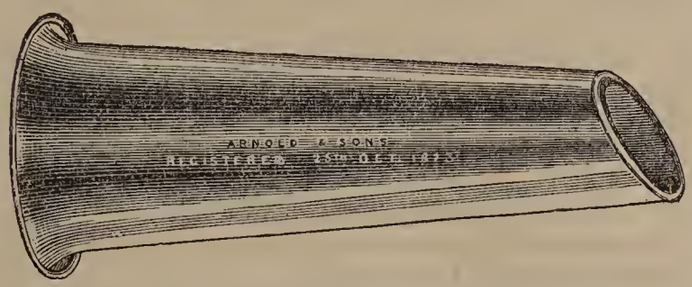
Dr. Gowers said that the absence of any primary degeneration of the muscular fibres was very striking; the fibres retaining their transverse striæ until very much reduced in size, apparently by the pressure of the fatty growth between them, and in this respect their condition differed remarkably from other states of muscular degeneration with which this had been compared.

## NEW INVENTIONS.

### TAPERING METALLIC TUBULAR SPECULUM (REGISTERED).

*Arnold and Sons, 35 and 36, West Smithfield.*

This speculum has been manufactured by Messrs. Arnold and Sons, in accordance with suggestions made by Dr. J. Hall




Davis. The advantages which this instrument presents over Ferguson's glass silvered speculum are its non-fragility and its tapering form. It is easier of introduction, and the reflective and illuminating power is greatly increased; the opening being much wider, there is considerably more room for operations. The speculum has a trumpet-shaped external opening, the width of the instrument gradually diminishing from this to its smaller uterine aperture. The tube is suitably bevelled off at its uterine end, and the edges carefully rounded. It is made in three sizes, and produced in two combinations of metals—one electro silver-plated and gilt at uterine end, and the other nickel silver-plated, which resists the action of acids, and will not tarnish. They are considerably lighter and cheaper than any metal speculum hitherto introduced.

Medical Practitioners in Austria.—According to official returns, there are in Austria (exclusive of Hungary) 7072 medical practitioners, 3874 being doctors of medicine, and 3198 surgeons (*Wundärzte*). Of these there are in Vienna 988 doctors and 79 *Wundärzte*. The Austro-Hungarian empire has 2354 military doctors, 2139 army doctors on active service, 83 in service in the marine, and 152 attached to the Landwehr.—*Wien. Med. Zeit.*, June 9.

## LEGAL INTELLIGENCE.

### A PHYSICIAN'S CONSULTATION FEES.

A case of some interest to the medical profession was heard on Friday, June 26, at the Warwick County Court, before Mr. J. B. Parry, Q.C. The plaintiff was Dr. Thomas Albert Carter, physician, of Leamington, who sought to recover ten guineas for professional attendance from the defendant, Mr. Booth Mason, of Arley House, Tillington. Mr. Sanderson appeared for plaintiff, and Mr. Overell defended. The defence was that there was no contract or retainer. Dr. Carter was the first witness, and said that he was an M.D. of Edinburgh and a Member of the Royal College of Physicians. He was called in to attend the defendant, Mr. Booth Mason, on December 23, 1871, and continued his attendance on nine subsequent occasions. Plaintiff was called in by Mr. Fenn Clarke, of Leamington, the ordinary medical attendant of the defendant. He found Mr. Mason in an extreme state of disease, and things in confusion in the house. The wife of the defendant was at the time lying dead. When complainant was first called in, the defendant was in bed, with a scarlet rash over him, and appeared to be delirious. On the second day he seemed rational. The defendant adopted plaintiff's attendance, no intimation whatever being given that it was not required. His usual fee for each attendance was one guinea, but in certain cases it was two guineas. In this case he charged one guinea for each attendance. In cross-examination plaintiff said that it was not a customary thing for a general practitioner to ask a physician to attend for him. Mr. Fenn Clarke was not in an ailing state of health when plaintiff first attended Mr. Mason. Plaintiff made no arrangement with Mr. Fenn Clarke nor with Mr. Booth Mason. Mr. Fenn Clarke, M.R.C.S., was then called, and said that he was the medical attendant of Mr. Booth Mason's family in December, 1871. The circumstances that led to Dr. Carter being called in were peculiarly sad. Mrs. Mason had been confined a few days previously, her children having had scarlet fever for some weeks before. When scarlet fever attacked a lady in her confinement it was nearly always fatal. Mrs. Mason was warned of this, but felt confidence in her own vigour, and refused to leave her children during her illness. On the second day after her confinement she was attacked by scarlet fever in its most malignant form. Dr. Hicks, the President of the Obstetric Society, came from London to see her; but she only lived two days after his visit. Mr. Booth Mason was taken in a rash, closely simulating scarlet fever, the day before Mrs. Mason died. On the night after her death Mr. Mason sent for witness, who wrote a prescription and visited him three times that day. But he considered the responsibility too great for himself alone, and called in Dr. Carter to attend the case with himself. Mr. Mason's relatives were all at a distance. Witness saw Dr. Carter on six several occasions in consultation. On December 27 and 28 witness was himself ill with influenza. On the 29th they did not happen to meet, but met on December 30 and January 1, 1872. In cross-examination witness said that at the time Dr. Carter was called in Mr. Mason exhibited great excitement and some mental obscurity. He did not consider that at the time Mr. Mason was in a position to decide whether it was necessary to call in a physician or not. Witness felt bound to take upon himself the responsibility. Nothing was said by Mr. Mason as to his having acted without authority in calling in Dr. Carter. Mr. Mason adopted Dr. Carter's advice. Witness consulted three personal friends of Mr. Mason in Leamington. He did not include anything in the shape of fees for Dr. Carter in his own bill. In cross-examination, witness said that his own bill to Mr. Mason up to the end of 1871 was £30 3s. 6d. It was usual to give a physician his fee when called in. Dr. Hicks received a cheque at the time he came from London to see Mrs. Mason. His Honour: But there is nothing to show that Mr. Clarke did not call in Dr. Carter on his own account. According to the case Veitch *v.* Russell, reported in Russell's "Law of Contracts," a physician could not recover unless a contract was actually made. Mr. Sanderson submitted that this decision was an old one, and had been overruled by others of more recent date. His Honour: The evidence does not show that Mr. Clarke communicated to the defendant that he had called in Dr. Carter, and that he thought it necessary to do so. If in answer to that Mr. Mason had said, "You are quite right in doing so," it would have implied a contract. At present there is nothing to show that Mr. Mason ever gave his

assent to receiving the visits of Dr. Carter in the ordinary way of a physician expecting to be paid for his attendance. Mr. Sanderson: But Mr. Mason adopted Dr. Carter's attendance each succeeding day. His Honour: Why did he not pay the usual fee at the time the visits were made; or explain to Mr. Clarke that he was too unwell to pay then, but that he would pay afterwards? Mr. Sanderson intimated that in some cases a fee was not paid at the time of the visit. Mr. Sanderson then referred to a case which was heard some time ago before Sir William Page Wood, sitting as Vice-Chancellor, in which he thought the law on the point was very properly stated. From the case it appeared that a physician under such circumstances would be entitled to recover, the patient having adopted his attendance, although he gave no express order for him to be called in. His Honour admitted that the authority he had cited was a book published in 1853. Mr. Sanderson said the case was referred to in the judgment in the Vice-Chancellor's Court to which he had referred, and did not appear to have been thought of any value. His Honour said he was not aware of any modern case in which the point had arisen. Mr. Sanderson read an extract from the "Medical Directory" of 1874, which non-officially gave the substance of a recent decision to the effect that a physician was, in the absence of a distinct understanding to the contrary, to be entitled to recover in all cases for his attendance. His Honour was willing to adjourn the case for Mr. Sanderson to search out the authority on which this ruling was founded. It was not often that a patient refused payment, and therefore cases of the kind but seldom arose. He should be sorry to give a decision that a physician was not entitled to recover in the absence of an actual understanding. Mr. Sanderson: I will ransack every authority, your Honour, and bring down the whole College of Physicians, if necessary. Mr. Overell denied that his client was delirious on the day of Dr. Carter's first visit. He defended the suit on the ground of principle. Judgment was reserved.

## OBITUARY.

SIR ALEXANDER NISBET, M.D., R.N., Inspector-General of Hospitals and Fleets,

Died on the 22nd ult., at his residence, Arley Lodge, Lee. He became Assistant-Surgeon in the Royal Navy in April, 1812, and served in the American war in 1814. He was at the capture and destruction of a flotilla of American gunboats, the attack on the forts before Baltimore, and the capture of St. Mary's. In August, 1815, he was promoted Surgeon, and became M.D. Edinburgh University in 1818. He served in the *Vernon* (fifty), from December, 1832, to August, 1841, on the North American and West Indian station, and at Greenwich Hospital from December, 1841, to January, 1844. He was then promoted to be Deputy Medical Inspector of that establishment. This appointment he retained until promoted in June, 1855, Inspector-General of Hospitals and Fleets, and from that period till March, 1861, he served at the Royal Hospital at Haslar. After an active service of thirty-eight years he obtained in June, 1865, the good service pension, and received the honour of knighthood in June, 1873. He was Hon. Physician to her Majesty the Queen.

Value of English Diplomas.—The British Minister at Santiago has made representations to the Chilian Government, complaining that English physicians are prevented from practising in Chili. The Dean of the Chilian Faculty of Medicine replied that the medical knowledge imparted in Great Britian was greatly inferior to that required before a degree of Doctor of Medicine could be obtained in Chili. It would therefore be unjust to allow British physicians to practise with less knowledge and competency than was required from Chilian physicians. This statement, which appeared in the *Times* on Monday last, is inexplicable to us, knowing that two or three years ago his Excellency the Chiliau Minister applied personally to Mr. Stone at the Royal College of Surgeons to select for him half a dozen young members of the College to serve in the Chilian Navy and Army for a short time, with permission to practise their profession amongst the residents when not interfering with their regular public duties. The gentlemen selected by Mr. Stone from provincial and metropolitan schools have given the greatest satisfaction to the Chilian authorities, and perhaps will favour us with their explanations of this extraordinary statement.

## MEDICAL NEWS.

University of Durham.—At a Convocation held on June 23, the following degrees and licences in Medicine were conferred, after examination, held at the Newcastle College of Medicine on June 15, 16, 17, and 18:—M.D.: George Rowell, M.B., M.R.C.S. M.B.: W. T. Wilson, Licentiate in Medicine, M.R.C.S.; and Ralph Young, Licentiate in Medicine, M.R.C.S. Licences in Medicine: Andrew Arnold and Charles W. Wilson.

University of Dublin.—At the Summer Commencements, held in the Examination Hall, Trinity College, on Wednesday, June 24, 1874, the following degrees and licences in Medicine and Surgery were conferred by the Right Hon. Sir Joseph Napier, Bart., Vice-Chancellor of the University:—*Licentiati in Medicinâ:* Johannes Duke Faussett, Gulielmus Johnston, Lambertus Hoppenstall Ormsby. *Licentiatus in Chirurgiâ:* Johannes Duke Faussett. *Baccalaurei in Chirurgiâ:* Henricus Gulielmus Joynt. *Baccalaurei in Medicinâ:* Joseph Wallace Boyce, Gulielmus Chatterton, Gulielmus L. Chester, Johannes Sarsfield Comyn, Jacobus Wilson Eakin, Jacobus Bird Eaton, Thomas Enright, Jacobus De Burgh Griffith, Joseph Hunter, Carolus E. James, Henricus Gulielmus Joynt (*in Colon.*), Thomas Leahy, Henricus Jacobus Leonard, Georgius Wyndham Murphy, Jacobus Murphy, Antonius Ricardus Lynch, Gulielmus Owen, Gulielmus Spear, Fredericus Tuthill, Phineas Barrett Tuthill, Carolus Grove Young. *Magistri in Chirurgiâ:* Gulielmus Chattertou, Gulielmus L. Chester, Jacobus Wilson Eakin, Carolus Nelson Gwynne, Morgan Fox Hamerton, Joseph Hunter, Jacobus Murphy. Georgius Alonzo Creech Pearce, Carolus Grove Young. *Doctores in Medicinâ:* Robertus Herbert Foot, Carolus Gulielmus MacDowell, Benjamin Franciscus MacDowell, Thomas Robertus Hamilton Moorhead, Alfredus Lloyd Owen, Johannes Mallet Purser (*stip. con.*), Henricus Heygate Phillips, Robertus Travers (*stip. con.*), Stewart Woodhouse.

Royal College of Surgeons.—The following gentlemen having passed the necessary examinations, were admitted Licentiates in Dental Surgery at a meetiug of the Board on the 29th ult., viz.:—

Alabone, Alfred, Newport, Isle of Wight.
Bryant, Frank, Huntingdon.
Canton, Frederick Arthur, Southampton-row.

The above were all students of the Middlesex and Dental Hospitals. One candidate failed to acquit himself to the satisfaction of the Board.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 25:—

Caddy, Henry, Ulverston, Lancashire.
Hicks, Edward John William, George-street, Hanover-square.
Ottley, Walter, General Hospital, Nottingham.
Woodforde, Alfred Pownall, 83, Marylebone-road.

The following gentlemen also on the same day passed their primary professional examination:—

Breach, John Frederick, Guy's Hospital.
Glyn, Herbert Arthur, St. Bartholomew's Hospital.
Sewell, William, St. George's Hospital.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Herman, G. E., M.R.C.S. Eng., L.S.A.—House-Surgeon to the London Hospital, *vice* H. T. Shapley, L.R.C.P., M.R.C.S. Eng., L.S.A.

Shapley, H. T., L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—Junior Resident Medical Officer at the London Hospital.

### MILITARY APPOINTMENTS.

War Office.—Medical Department.—Surgeon George Carson Gribbon, M.B., to be Surgeon-Major, *vice* David Woods, retired on temporary half-pay; Surgeon John Joseph Crean, from half-pay, to be Surgeon, *vice* Robert Adams, M.D., deceased; Surgeon Thomas Wood, M.D., from half-pay, to be Surgeon, *vice* Florence Theobald McCarthy, deceased.

### BIRTHS.

Duncan.—On June 26, at 139, Buckingham-palace-road, the wife of H. M. Duncan, M.D., prematurely of a son.

Iles.—On June 25, at Watford, the wife of Wilson Iles, M.D., of a daughter.

Marshall.—On June 29, at 28, Caledonian-place, Clifton, the wife of Henry Marshall, M.D., F.R.C.S. Edin., of a son.

## MARRIAGES.

CLOETE—BALFOUR.—On June 1, at St. George's Cathedral, Madras, Josias Gordon Cloete, Captain H.M. 31st Regiment, M.N.I., to Marion, eldest daughter of Surgeon-General Balfour, Madras Medical Department.

CROWFOOT—BAYLEY.—On June 30, at the parish church of St. Peters, Brighton, William Miller Crowfoot, M.B. Lond., of Beccles, Suffolk, to Catharine Anne, second daughter of the late Robert Bayley, Esq., of the Inner Temple, barrister-at-law.

SANDERSON—JOHNSTONE.—On May 28, at St. Paul's Church, San Fernando, Trinidad, West Indies, William Sanderson, Esq., of Mondesir Estate, to Agnes Matilda, eldest daughter of Robert Johnstone, M.D.

## DEATHS.

BAKER, THOMAS JOHN, M.R.C.S. Eng., L.S.A., of 18, Junction-road, Highgate-hill, suddenly on June 28, aged 63.

DOUGLAS, ARCHIBALD, M.D., at 8, Clifton-place, Hyde-park (formerly of Edinburgh), on June 25, aged 57.

MCNICOL, JOHN CLARK, M.D. Edin., of Clayton-le-Moors, Lancashire, on June 22, aged 29.

SCOT, THOMAS GOLDIE, M.D. Edin., L.R.C.S., Deputy Inspector-General of Hospitals, late of 79th Highlanders, of Craigmuie, Stewartry, of Kirkcudbright, at The Manse, Laurencekirk, on June 25.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

GENERAL INFIRMARY, NORTHAMPTON.—House-Surgeon. Candidates must be duly qualified. Also an Assistant to the House-Surgeon. Applications, with testimonials, to the Secretary, on or before July 18.

KING'S COLLEGE, MEDICAL DEPARTMENT.—Professor of Materia Medica, Professor of Comparative Anatomy, and Physician to King's College Hospital. For particulars, apply to J. W. Cunningham, Esq.

KINGTON UNION.—Medical Officer for the New Radnor District. Candidates must be duly qualified. Applications, with testimonials, to the Clerk of the Union, on or before July 24.

NORTH STAFFORDSHIRE INFIRMARY.—House-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before July 22.

STOCKPORT INFIRMARY.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, on or before July 8.

WEST NORFOLK AND LYNN HOSPITAL, LYNN.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Weekly Board, on or before July 11.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Gower Union.*—Dr. Eade has resigned the Eastern District; area 7581; population 4032; salary £20 per annum.

*Stow-on-the-Wold Union.*—Mr. James Drew has resigned the Longborough District; area 16,143; population 2489; salary £35 per annum. Also the Workhouse; salary £15 per annum.

*Stratford-on-Avon Union.*—The Welford District is vacant; area 11,569; population 2070; salary £50 per annum. Also the Workhouse; salary £40 per annum.

*Weymouth Union.*—Mr. W. T. Boreham has resigned the Abbotsbury District; area 11,358; population 2041; salary £60 per annum.

### APPOINTMENTS.

*Cheadle Union.*—John W. H. Mackenzie, M.R.C.S. Eng., L.S.A., to the Cheadle District.

*Cheltenham Union.*—John P. Bevan, L.R.C.P., M.R.C.S., to the First Cheltenham District.

*Daventry Union.*—Charles H. Gibson, M.R.C.S. Eng., L.R.C.P. Edin., to the First District and the Workhouse.

HIS ROYAL HIGHNESS the Duke of Edinburgh has been pleased to appoint J. Fayrer, M.D., C.S.I., Honorary Physician to her Majesty, to be Physician to his Royal Highness.

DR. PROTHEROE SMITH has been elected a Corresponding Member of the Medical Society of St. Petersburg.

DR. E. G. POTTLE, Public Vaccinator of St. Luke's Division of the Holborn Union, has been awarded a Government grant of £42 7s. for successful vaccination.

SMALL-POX is spreading in the Umballa and Ferozepore districts.

A PROVISIONAL committee, consisting of medical practitioners, has been formed in Sunderland for the purpose of establishing a provident dispensary in that town.

UNDER the new War Regulations the military hospitals in the Southern district will be transferred from the Control Department to the Army Medical Department this week.

THE preparation of a handbook on adulterations, and the means of their detection in food, drink, and drugs, will, we understand, be undertaken by Messrs. Smith, Elder, and Co., by arrangement with the Principal of the Inland Revenue Laboratory.

THE foundation was laid on Saturday of a new wing to the London Hospital, under the auspices of the Grocers' Company, who, it will be remembered, contributed £20,000 for the purpose. The establishment, on the completion of this addition, will contain 800 beds.

DISPLACEMENT of the apex-beat may be produced in the normal state by inclining the patient to the left side, when it may pass to the left a little farther even than a point equidistant between its normal position and the axillary line; and by inclining the patient to the right, the apex-beat becomes faint or disappears, the right side of the heart being then felt to give a distinct pulsation in the epigastrium. In pericardiac effusion, the apex-beat may be displaced upwards as far as the fourth interspace, and slightly outwards to the left. In pleural effusion on the left side, it may be turned quite round the other way into a similar position on the right side, and pleuritic effusion on the right side may displace it towards the left. In hypertrophy, with dilatation of the left ventricle, the apex-beat passes downwards and to the left. In a similar condition of the right ventricle, it may entirely disappear from its normal position, a diffuse impulse at the lower end of the sternum revealing the cause.—"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, May*, 1874).

# NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** With reference to the Gurjun balsam or oil mentioned by Dr. Dyce Duckworth last week in the treatment of leprosy, we would refer our readers to a note in our number of April 4, stating the result of experience as to the use of Cashew-nut oil, of the Chaulmogra, the Neeradeemootoo oil, and the Gurjun. With good diet and cleanliness, these remedies undoubtedly do good; but some Indian authorities fear that any relief afforded by it is only temporary.

*Mr. C. S. Jeaffreson* shall have a proof next week.

*Mr. Lennox Brown*, if wise, would let the matter drop.

*Santa Anna.*—The idea is hardly original; but after all is capable of great development, and certainly has not been fully worked out.

*L.S.A.*—Ph.D. is a foreign degree, obtainable from various German universities under very various conditions.

*Justin.*—The Act to amend and consolidate the Acts relating to the medical profession of Ontario, Canada, passed the Legislative Assembly on March 12 last.

*K. P. M.*— "Unknown, perhaps his reputation
Escapes the tax of defamation,
And, wrapt in darkness, laughs unhurt,
While critic blockheads throw their dirt;
But he who madly prints his name,
Invites his foe to take sure aim."—*Lloyd.*

### HIPPOCRATES IN A CLOTHES-BASKET.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Such of your readers as are familiar with the romance and fiction of the centuries preceding our own, will be aware how troubadours, novelists, and dramatists—including the "Divine Williams" himself—utterly disregarded all verities of time, place, and person, and were indifferent whether they spoke of a seaport in Bavaria, or of the presence of Alexander the Great at a tournament of Christian knights. Their *moral*, such as it was, was their chief care, and in order "to point their moral and adorn their tale," they took the most preposterous liberties with the names and characters of historical personages. Now it happens, unluckily, that in an age of open profligacy the favourite moral was, that no man is saint or sage below the girdle; and to enforce this maxim it was a common practice to represent saints and sages, from King Solomon downwards, as yielding to temptation like ordinary mortals. For instance, there is a "Lay of Aristotle," said to be derived from the Arabians, and reproduced by mediæval poets (as Gower in his "Confessio Amantis"), in which the sage is represented as so befooled by one of the mistresses of Alexander the Great, that he allowed her to harness him with an ass's saddle and to ride on his back, whilst he went on all fours. Nor did these irreverent jokers spare the fathers of physic, for there is a "Lay of Hippocrates," relating how this eminent physician, coming to Rome in the time(!) of the Emperor Augustus, found the whole city in mourning on account of the death of the Emperor's nephew. But he restores the youth to life by putting the juice of certain plants into his mouth; whereupon he is looked upon as more than mortal, and treated with the highest reverence. But, alas! he has the one vulnerable point of human nature. He makes overtures to one of the Emperor's mistresses, who promises that he shall be admitted to her apartments. But the frail fair one lives at the top of a high tower, the gate of which is jealously guarded. So it is agreed that he shall be hoist up in a clothes-basket. He repairs at night to the foot of the tower, finds the basket, gets in, and is pulled up. But, alas! the basket is raised only halfway by the perfidious woman, and there the sage is left hanging, to the derision of the multitudes who come to gloat over the frailties of an old philosopher. The *motive* of the story is as vile as the story is false, but it shows the manners of the time when it was popular.

I am, &c, DELIA.

*Hazlitt.*—The Police Medical Board of Melbourne consists of Drs. Youl and McCrae and Mr. Ford.

*G. F. P.*—The marine hospital at the port of Chicago was opened for the reception of patients on November 17 last.

*Cato.*—Lord Bacon said—"It is with times as it is with ways: some are more uphill and downhill, and some are more flat and plain, and the one is better for the liver and the other for the writer."

*A Naval Surgeon.*—"Play the fool with wits,
'Gainst fools be guarded: 'tis a certain rule,—
Wits are safe things, there's danger in a fool."—*Churchill.*

*Ethnologist.*—The magnificent collection of Dr. Barnard Davis is much larger than that in the possession of the College of Surgeons; as at the time of the publication of his catalogue in 1867, it numbered 1540 specimens. The College Museum contains at present 937 specimens, of which 284 are described in the catalogue published in 1853, and 653 have been added since.

*B. S.*—It was formerly a very common custom to cut open live animals, as pigeons, kittens, puppies, and rabbits, and to bind the animal to an ulcer, so that its soft and reeking viscera might act as a kind of fomentation or poultice. Animal heat was believed to have something in it different from common heat.

COMMUNICATIONS have been received from—

Mr. J. H. Thomas, Bristol; Mr. J. Dixon, London; Dr. Heywood Smith, London; Mr. G. Cowell, London; Mr. W. Blower, Bedford; Dr. J. E. Pollock, London; Mr. W. C. Arnison, Newcastle-on-Tyne; Santa Anna; Messrs. Arnold and Sons, London; Mr. T. Needham, London; Dr. H. T. Shapley, London; Dr. E. G. Pottle, London; Mr. J. Chatto, London; Dr. Sparks, London.

BOOKS AND PAMPHLETS RECEIVED—

Report on the Sanitary State of the Hackney District, for 1872, by Dr. J. W. Tripe—Report on the Sanitary Condition of Birkenhead—A New Apparatus for Extensor Paralysis, by J. Van Bibber, M.D.—Thomson's Conspectus, edited by Birkett—West's Harveian Oration for 1874—Keen on the Uses of Chloral—Report of the Belfast District Hospital for the Insane—Newman on Electrolysis in the Treatment of Stricture of the Urethra.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Canada Lancet—Allgemeine Wiener Zeitung—Centralblatt für Chirurgie—Berliner Klinische Wochenschrift—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—La France Médicale—Le Progrès Médical—Gazette des Hôpitaux—Bulletin de l'Académie de Médecine—The Medical Temperance Journal—Irish Hospital Gazette—Popular Science Review—Monthly Microscopical Journal—Science Gossip—The Obstetrical Journal of Great Britain and Ireland—Leisure Hour—Sunday at Home—British and Foreign Medico-Chirurgical Review—Revista Médico-Quirúrgica—Bulletin Général de Thérapeutique—Viertel Jahresschrift für Dermatologie und Syphilis.

## APPOINTMENTS FOR THE WEEK.

*July 4. Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

6. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

7. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

8. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

9. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

10. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, June 27.*

### BIRTHS.

Births of Boys, 1152; Girls, 1076; Total, 2228.
Average of 10 corresponding years 1864-73, 2021·0.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 649 | 567 | 1216 |
| Average of the ten years 1864-73 | 656·8 | 600·8 | 1257·6 |
| Average corrected to increased population | ... | ... | 1383 |
| Deaths of people aged 80 and upwards | ... | ... | 37 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 1 | 1 | ... | 7 | ... | ... | 2 | 13 |
| North... ... | 751729 | ... | 8 | 2 | 1 | 2 | ... | ... | 1 | 20 |
| Central ... | 334369 | ... | 2 | 5 | ... | 4 | 1 | 2 | 2 | 2 |
| East ... ... | 639111 | 1 | 2 | 21 | ... | 5 | 2 | 1 | 2 | 23 |
| South... ... | 967692 | ... | 9 | 5 | 4 | 7 | 1 | 5 | 4 | 10 |
| Total ... ... | 3254260 | 1 | 22 | 34 | 5 | 25 | 4 | 8 | 11 | 68 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·669 in. |
| Mean temperature | 57·4° |
| Highest point of thermometer | 75·3° |
| Lowest point of thermometer | 40·1° |
| Mean dew-point temperature | 50·8° |
| General direction of wind | S.W. & E. |
| Whole amount of rain in the week | 0·87 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 27, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending June 27. | Deaths Registered during the week ending June 27. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2228 | 1216 | 75·3 | 40·1 | 57·4 | 14·11 | 0·87 | 2·21 |
| Portsmouth ... | 120436 | 26·8 | 59 | 48 | ... | ... | ... | ... | 0·97 | 2·46 |
| Norwich ... ... | 82257 | 11·0 | 44 | 26 | 73·5 | 38·5 | 54·9 | 12·72 | 1·09 | 2·77 |
| Bristol ... ... | 192889 | 43·3 | 102 | 91 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 62 | 21 | 77·8 | 47·2 | 58·5 | 14·72 | 0·37 | 0·94 |
| Birmingham ... | 360892 | 43·0 | 294 | 164 | 74·2 | 47·2 | 57·7 | 14·28 | 0·40 | 1·04 |
| Leicester ... ... | 106202 | 33·2 | 126 | 28 | 69·9 | 44·9 | 56·3 | 13·50 | 0·31 | 0·79 |
| Nottingham ... | 90894 | 45·5 | 60 | 39 | 75·9 | 41·7 | 56·9 | 13·83 | 0·65 | 1·65 |
| Liverpool ... ... | 510640 | 98·0 | 385 | 271 | 66·0 | 47·9 | 55·9 | 13·28 | 0·21 | 0·53 |
| Manchester ... | 355339 | 82·8 | 299 | 169 | ... | ... | ... | ... | ... | ... |
| Salford ... ... | 133068 | 25·7 | 106 | 67 | 70·8 | 43·3 | 56·1 | 13·39 | 0·35 | 0·89 |
| Oldham ... ... | 86281 | 18·5 | 75 | 53 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 169 | 78 | 71·4 | 45·0 | 54·8 | 12·66 | 0·56 | 1·42 |
| Leeds ... ... | 278798 | 12·9 | 263 | 124 | 72·0 | 44·0 | 56·1 | 13·39 | 0·32 | 0·81 |
| Sheffield ... ... | 261029 | 13·3 | 212 | 110 | 71·0 | 46·0 | 56·9 | 13·83 | 0·32 | 0·81 |
| Hull ... ... ... | 130996 | 36·0 | 113 | 55 | 71·0 | 44·0 | 56·7 | 13·72 | 0·19 | 0·48 |
| Sunderland ... | 104378 | 31·6 | 114 | 36 | 72·0 | 46·0 | 58·3 | 14·61 | 0·16 | 0·41 |
| Newcastle-on-Tyne | 135437 | 25·2 | 100 | 71 | 62·0 | 45·0 | 51·8 | 11·09 | 0·17 | 0·43 |
| Edinburgh ... ... | 211691 | 47·8 | 140 | 76 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 371 | 255 | 68·8 | 43·3 | 56·3 | 13·50 | 0·23 | 0·58 |
| Dublin ... ... | 314666 | 31·3 | 184 | 142 | 71·4 | 39·3 | 57·4 | 14·11 | 0·24 | 0·61 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5506 | 3140 | 77·8 | 38·5 | 56·4 | 13·55 | 0·44 | 1·12 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·67 in. The highest was 29·99 in. at the beginning of the week, and the lowest 29·45 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# MEETING OF THE GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

FIRST DAY.—THURSDAY, JULY 9, 1874.

THE General Medical Council met on Thursday, the 9th inst., in their new premises, formerly the Royal College of Chemistry, in Oxford-street, at two o'clock; the President, Dr. Paget, in the chair. There were present, besides the President—Dr. James Risdon Bennett, Mr. Richard Quain, Mr. Edward Bradford, Dr. Henry W. Acland, Dr. George M. Humphry, Dr. Thomas Thompson Pyle, Dr. Andrew Wood, Dr. John G. Fleming, Dr. Allen Thomson, Dr. Aquilla Smith, Dr. James Apjohn, Dr. Edmund Alexander Parkes, Dr. William Sharpey, Dr. Richard Quain, Sir William Withey Gull, Bart., M.D., and Dr. William Stokes.

The PRESIDENT read letters from Sir Dominic Corrigan and Dr. Leet explaining their absence.

The following new members were introduced to the Council:—Dr. Daniel R. Haldane, Professor William Turner, M.B., Dr. Rawdon Macnamara, and Dr. James Warburton Begbie.

The PRESIDENT: Gentlemen,—I congratulate you on your new abode. I trust that the Council at large will be satisfied with the way in which the Executive Committee has carried out the instructions "to obtain premises wherein the meetings of the Council may be held and the general business carried on with comfort and convenience." The result which you see has cost not only much time but some trouble. A report on the subject will immediately be laid before you by the Executive Committee, and if any further information be desired, it will gladly be given by the treasurers or myself. I have thought it advisable that such parts of my correspondence with the late Government as have not already appeared in the minutes of the Executive Committee should be arranged and placed in the office, so that all that has passed with regard to this house can at any time be readily referred to. The terms on which the Council will hold the house are not so favourable as we had been led to expect. But if any member of the Council thinks that the Executive Committee might have done better, I will beg him to consider all the circumstances of the case, to look at the answer of the then Government to the application of the Council in 1858, and to remember the actual pressing necessity for providing a local habitation for the Council before we should lose the power of retaining even our insufficient accommodation in Soho-square. The letter from the late Government offering this house to the Council was dated the very day of their resignation of office. To one part of this letter I may refer with some gratification—that in which the Lords of the Treasury expressly recognise the claims of the Council to a certain measure of public assistance. These were the grounds on which the application to Mr. Lowe for apartments rent-free was made and urged. The claim was expressly disallowed in 1858. I am glad that now it has been, however, partially admitted. It is not quite reasonable or fair that the cost of the work done by the Council should be wholly defrayed out of the registration fees paid by men entering our profession. The persons benefited by this work are not members of our profession alone or chiefly, but in a much higher degree the general public. For the chief purpose and end of our work is to prevent the intrusion into the profession of persons in whose hands the health and lives of the public could not be safely trusted. I believe, indeed, and have no doubt, that to Mr. Lowe we are mainly indebted for the favourable terms on which this house was offered to us. If less favourable than we had reason to expect, they are yet not undeserving acknowledgment. From the present Government we have received prompt courtesy. An application to the Treasury for a reasonable concession in regard to the date of the lease was answered by return of post, and the answer was favourable. To the officials of the Office of Works we are under greater obligations for their readiness in receiving suggestions for the requisite alterations in the building, and for the skill and activity with which these have been carried out. The building was a mere shell, wholly unfit for our needs. You will see what it now is, and can judge what it will be when all that is intended shall have been quite completed. We are, therefore, very greatly indebted to the goodwill and zeal and ability of the Office of Works, for all that they have done has been done as it were "against time," in a very short period. And we are certainly not less indebted to our Treasurers, and particularly to Dr. Quain, who, as many of you know, has been from first to last the chief moving spirit in this business. But for him, we could not possibly have met here to-day; but for the unsparing devotion of his valuable time to our service—his time by night as well as day—we might now, in this broiling weather, have been cooped up in the corner of Soho-square. We owe also not a little to his thoughtfulness and his taste. But all this is well known to others as well as myself, who are better able than I am to express adequately our thanks. In opening the session in this spacious hall, I have only one regret—that all those who sat with us in the Council last year are not here to-day. Four of them are absent—Sir Robert Christison, whose words added weight to any debate, whose name has for so many years been known and held in respect wherever medicine is studied, representing as he does, in the highest degree, all that for which his university has long been famous; Dr. Alexander Wood, who, like Sir Robert Christison, was from the first a member of the Council, and whose great capacity for business, and equal or even greater gift of oratory, must have made him a marked man in any position in which he might have been placed; Dr. Macrobin, who was kindly, candid, honest, and able. I think it one of the many happy incidents of my connexion with the Council that it gave me his acquaintance, and I hope his friendship. And we miss, too, the genial smile of our friend Mr. Hargrave; but our new colleagues must not think themselves less welcome because we do not forget their predecessors. We see in their presence that, however great may have been any one of our losses, it is not too great to be replaced. Since the last meeting of the General Council, the examinations of some of the medical authorities have been visited and reported on. It would be superfluous for me to say much of these reports; they tell their own tales, and tell them with such manifest ability as to require no commendation of mine. And they do more than convey information respecting particular institutions: they raise some questions of a general kind, the discussion of which cannot fail to be serviceable to that which is our great object—the advancement of medical education, and of the standard of acquirements in our profession. But though I say no more than this of the reports themselves, I may be expected to make some mention of the arrangements of the Executive Committee for carrying out the visitations. In the selection of visitors regard was had to prior experience as examiners. Their number was purposely limited, so as to allow of one visitor inquiring into the examinations of more than one licensing body, and thus helping to guide us towards an equivalent of standards in parallel cases. I am sure the Council will think the Executive Committee fortunate in having obtained the services of men so eminently qualified, and whose statements and opinions are entitled to so much respect. By two gentlemen only were the invitations declined—by Dr. John Ogle and Mr. Teale, of Leeds,—and in both cases with expressions of regret at their inability. We lost the valued services of Mr. Holmes on his appointment to the Board of Examiners of the College of Surgeons of England. His nice sense of propriety perceived an incompatibility in the two offices. In all cases where practicable, a physician and a surgeon were associated in the visitation. No notice was given beforehand to the body about to be visited. The intention to visit was, I believe, in all cases kept secret. The reports have not been subjected to any revision by the Executive Committee. In no case has even a single word been altered after the reports have been sent in. As to any instructions beforehand, none were given, except such as were needed in the case of such visitors. They were no more than that the reports should be thorough and unfettered—just what the visitors might observe and think for themselves. Another work has been done since our last meeting in the compiling and publication of the additions to the Pharmacopœia. A report of the Pharmacopœia Committee will bring this under your consideration, and will, I doubt not, meet your approval. Only a few words more—my last words, I may call them,—and pray, under the circumstances, forgive their egotism. Five years ago the Council did me the honour of electing me their President. This very day is the anniversary of my election, for I was elected on July 9, at 6 p.m., or thereabouts. In a

very few hours, therefore, my period of office will be at an end. The honour bestowed on me five years ago was the highest I ever received—the highest I should ever wish to receive. I am very conscious how small a return I have made for this distinction, but I have endeavoured to make such a return as you would most approve of, for I have tried to discharge my duties to the best of my ability. All honours have their responsibilities, and mine have been no exception. As President, I have been more responsible than any other member for the efficient discharge of the duties of the Council. And our joint responsibilities are not light, for they are of the same kind, and manifold more weighty than the everyday responsibilities of our profession. Like them, but in a larger sense, they are responsibilities to be measured by men's lives and men's sufferings. To raise and maintain a high standard of acquirements in those who enter our profession, is our main duty here. To neglect this study would be to let men die whose lives might be saved—to let men suffer whose health might be restored. But in all responsibilities or difficulties, and amidst the many shortcomings of which I am sensible, I have always been sure of the support of the Council. Their kindness has never once failed me. During the active five years of my office there has not been one single instance in which I have been treated otherwise than with the utmost kindness and consideration by all the members of the Council, collectively and individually. I wish I could adequately express my gratitude. Happily, our responsibilities are limited by the extent of our powers and by the proportion that our powers have borne to the largeness and difficulties of our task. The powers given to the Council by the Medical Act are but slender. Its main task, that of elevating medical education, is a large one. All great educational improvements are great tasks, and though ours has been in some sense limited, being confined to one profession only, in another sense it is very large, for its extent is the area of the whole United Kingdom. This is, indeed, a fact of which the Medical Council may well be proud. Our Council is, as far as I know, the only body, except the Houses of Parliament, of which both the construction and functions are truly imperial—the only body in which English, Scotch, and Irish representative men meet together to consult upon and devise measures that shall be common to all three divisions of the kingdom. In this the Medical Council sets an example that may well be envied, and might with advantage be imitated. But in this, which may well be our boast, is also, it must be admitted, one of our difficulties. The improvements, to be effectual for their purpose, must proceed *pari passu* throughout the whole United Kingdom. And another impediment to rapid progress is that our members—English, Scotch, or Irish—are, and I would say must be or ought to be, for the most part practitioners of medicine, men therefore busy at home, and meeting perhaps only when assembled together in our annual session, bringing therefore greater diversities of opinion than might perhaps be found if their intercourse were more frequent. But notwithstanding these obvious difficulties, though time is found by experience to be a great and necessary element in all great educational improvements, though we have not hitherto succeeded in simplifying our work by reducing the number of the nineteen separate sets of examinations, yet our success has not been discouraging when compared with our powers. It may be, and doubtless is, difficult to estimate the progress that has been made, but at all events we know that a few years ago a man could enter into our profession without producing any evidence whatever of general education. Now a preliminary education is enforced on all, and the proofs of this are given in almost all cases prior to the commencement of medical studies. The future influence of this on the social status of our profession can scarcely be over-rated. We know that a few years ago only three or four of the licensing bodies made clinical examinations a part of their test of fitness for a diploma. This test was even spoken of as objectionable. Now all bodies insist on it. We know that a few years ago, in the examinations for medical commissions in the Army or Navy, it was not uncommon to find about 40 per cent. of the candidates ignorant and incapable, though already in possession of diplomas, both in medicine and surgery. Of late these discreditable failures have become so few as to be almost, if not quite, insignificant. I am happy to say that on the very last occasion of examination for Army Medical commissions—that of March, 1874, which will be laid before you to-day—there was not one of these failures. And surely the like signs of improvement are equally manifest throughout our profession. Teachers tell us so; laymen have no doubt of it. Certainly my experience is so. I know not a few young village practitioners whose acquirements might have placed them, a few years ago, in the foremost rank of practitioners in large towns. I do not claim for the Medical Council all the credit of these improvements. Something is due to the admirable spirit for doing better and better which pervades our profession, and is kept alive by the medical journals. Some share of the credit may also fairly be given to the Licensing Bodies. All of them have improved their examinations, and some of them have set an admirable example and seconded this Council with a most praiseworthy public spirit. May I venture to add to what I have already said that the limitation of our powers, both in education and still more in other matters relating to our profession—our difficulties and the degree of success actually attained by us—have become better known to the profession at large than they were some five years ago. It is now more clearly seen that the Council has not the same freedom of action as a voluntary association; that it cannot take part in all matters that concern the profession; that many such matters, however interesting and important to the profession, are altogether beyond or beside the functions of the Medical Council as defined by Act of Parliament; and that the Council is less obnoxious to blame than was formerly supposed for want of energy in dealing with the Licensing Bodies. Have we, then, in that which is our chiefest duty—the providing for the public the best possible medical advice—have we yet attained that happy standard of excellence at which we may "rest and be thankful"? I am very far from thinking this. I am far from thinking that the actual state of things is satisfactory. Nothing, indeed, is satisfactory which admits of further improvement. That there is room for further improvement is not doubtful. But enough has been effected to encourage the Council in doing more. It is true that the powers given to it by the Medical Act are slender, but it has an influence far more ready and sure in its operation than the statutable coercive power which could be exercised only through an appeal to the Privy Council, and which would probably fail except in case of very plain dereliction of duty on the part of the offending body. The chief power of the Council, as I believe, is that which it gave itself when, on the motion of our friend Dr. Andrew Wood, the Council determined that its debates should be public. The agency of the press giving publicity to our debates and proceedings has, I believe, more than doubled the power of the Council—doubled its power for anything that is right and reasonable, and more than doubled its influence with the Licensing Bodies in any question in which this Council may be in the right and they in the wrong. I have, therefore, no fear as to the future of the Medical Council. It has before it a great course of usefulness, which I am sure will be followed with success. Its main purpose is of the highest national importance. How this may best be effected will be for you to decide, and is not for me to indicate. It would be unbecoming for me to talk of what should be the work of the Council in the coming time, when I shall no longer be a member of it. I shall look on from a distance, indeed, but with unceasing interest, and with the respect which I have long learned to feel, and shall never cease to feel, for the Medical Council. I will now resign my chair, and leave you to choose my successor. Before I sit down, I ought to thank my friend on my left hand, the Registrar, for his unvarying kindness. He is one of the most courteous and obliging of men; and also I ought not to omit to thank the reporters for the way in which they have done their work.

Dr. Paget then retired, and Dr. Stokes took the chair.

Dr. Andrew Wood rose with peculiar happiness to propose a motion, which he had no doubt would be received with acclamation. It was, that they tender a hearty vote of thanks to Dr. Paget for his great services to the Council. All those who had sat with him for so many years in the Council knew that it would have been utterly impossible for any man to have discharged the important and responsible duties which had fallen upon him with greater courtesy, greater impartiality, greater ability, or greater success.

The resolution, having been seconded by Dr. Aquilla Smith, was carried unanimously.

Dr. Andrew Wood moved, and Dr. Apjohn seconded, that Dr. Paget be re-elected President.

The resolution was carried unanimously.

The remainder of this day's proceedings will be reported fully in our columns next week.

# ORIGINAL LECTURES.

SIX LECTURES ON THE

## SURGICAL TREATMENT OF ANEURISM IN ITS VARIOUS FORMS.

DELIVERED IN THE THEATRE OF THE ROYAL COLLEGE OF SURGEONS.

By TIMOTHY HOLMES, F.R.C.S.,
Professor of Surgery and Pathology to the College.

### Abstract of Lecture III.,

*Delivered on June* 12.

The subject of inguinal and femoral aneurism was continued. It was shown in the last lecture that the experience of British hospitals has been on the whole favourable in the treatment of this form of aneurism by cutting operations, whether in unruptured aneurisms after the method of Hunter, applied to the external iliac or femoral artery, or in ruptured aneurisms by tying both ends of the vessel after the manner of Antyllus; whilst the experience of pressure, so far as it has gone, has been less favourable, and offers a very great contrast to the account given by Fischer of the cases to be found in published literature.

Two causes may be imagined for this contrast. It may be assumed that our hospital patients are less tolerant of pressure, and their cases less suited for the treatment, than those in general practice, either on account of dissipation or prior neglect of their disease; but it is also possible that the method of compression may not be followed out in our hospitals with that minute care and that attention to every detail of the case which are really essential to its successful application. The treatment has not a fair chance if carried on by persons who are not responsible for its success, and who may be hardly interested in the result of the case. The compression treatment is far more laborious for the surgeon in charge of the case than the operative treatment, and Professor Holmes suspects that if hospital practice is to be carried on only by daily visits, the treatment of cases of aneurism in the lower extremity will be more successfully conducted on the Hunterian method than on that which is intended to replace it. At the same time, this accidental circumstance affords no indication of the real value of the two methods of treatment; and Mr. Holmes thinks the results of compression in hospital practice would be more satisfactory than at present if hospital surgeons had sufficient confidence and sufficient interest in the method to sacrifice to it the time and the attention which are necessary, in order to obtain from it the best results which it is capable of giving.

Another striking feature in this table is the sharp contrast which it shows between the results of rapid and total pressure under chloroform—which, as a rule, has been very successful—and those of the more gradual method by instrumental or digital pressure, which—in femoral aneurisms, at any rate—has been very much the reverse of successful in the hands of British hospital surgeons.

It will be convenient now to consider the results of the experience up to the present time of this novel method, not only in femoral, but in other forms of aneurism below the diaphragm. We are not in a position yet to give any but a conjectural opinion as to the chances of success of the rapid method of pressure applied under the influence of chloroform, in situations like the popliteal, where the other plans are so feasible.

Very few cases have occurred in which this method has been applied to the femoral artery for the cure of popliteal aneurisms, and that for the very satisfactory reason that patients can usually tolerate effectual pressure of the femoral without chloroform. But in cases on femoral aneurism it is often necessary, if compression is to be used at all, that it should be used in the form of rapid and total compression under anæsthesia, of the external iliac; and it is one of the most interesting and most difficult questions in the surgery of such aneurisms to determine whether this treatment is really more or less dangerous than the resort to the Hunterian operation on the external iliac artery.

The number of cases which have as yet been under treatment cannot be large, but it is evident, from the way in which "the rapid method" is sometimes spoken of, that the few striking cases of cure which have been published have attracted more attention than the instances of failure, although great candour has been shown in publishing these.

The Professor then called attention to a table comprising twenty-three cases in which rapid pressure has been applied with a view of curing the aneurism at a single sitting, an attempt which in many cases has been repeated at subsequent sittings with varying success.

In six of these it was, or was supposed to be, aortic. The fact was ascertained by post-mortem examination in four; and in the others was inferred from more or less convincing signs. Of these, three were successful, two were fatal, and the sixth failed, the man dying from the gradual progress of the disease. In ten the aneurism was iliac or ilio-femoral, and in seven of these a cure was obtained. In the others the attempt failed but was not fatal, though in every one death ensued after the ligature, which in one was applied to the abdominal aorta. In five the aneurism was femoral, and in two of these there is no doubt of the success of the treatment; in a third case (Mr. Lawson's) the aneurism was certainly cured, though opinions may fairly differ as to the part which the rapid pressure played in the cure as compared with the other forms of compression which had been employed previously. In the other two cases of femoral aneurism the attempt failed, and one of the patients died nine days afterwards of purulent bronchitis, for which no other cause is apparent than the prolonged administration of chloroform.

The other patient died after ligature of the external iliac. Finally we have two cases of popliteal (or perhaps in Mr. Holt's case femoro-popliteal) aneurism, both cured.

This record of cases is no doubt extremely encouraging as far as relates to the forms of aneurism which do not admit of any other operative treatment, except that by ligature of the abdominal aorta, which hitherto has always failed, or of the common iliac, from which only one-fourth of the patients operated upon have recovered. But it is quite clear that it furnishes no reliable evidence of the superiority of this treatment to that by the more successful cutting operations or by the methods of pressure in previous use; while the protracted anæsthesia alone is quite as dangerous as the ligature of the femoral artery, and compression of the abdominal aorta cannot be efficiently accomplished for any length of time without dangers which must be obvious to anyone who thinks for a moment of the parts in anatomical relation with it. The total compression also of the common, or even of the external iliac artery must involve great risk of fatal contusion of the viscera or peritoneum. It does not seem that the treatment of aneurism in the lower limb, for which the femoral might be tied, would be improved by substituting for that operation the total compression of one of the large arteries of the abdomen under chloroform; nor is Professor Holmes disposed to look hopefully on the proposal of substituting the rapid and total compression of the femoral under chloroform for the Hunterian ligature, though there is much more to be said in favour of this.

It is to be observed that in no instance hitherto has the ligature been successfully practised after rapid pressure has been used and failed. It is true, however, that the cases are as yet so few that this may be merely an accidental circumstance, yet it is one which must attract very serious attention. Meanwhile, without affecting to decide the question either way, the lecturer protested against any rash assumption that because rapid pressure has been successful as compared with ligature of the aorta or common iliac, therefore it must be successful if compared with ligature or gradual compression of the external iliac or femoral, and that it has no dangers of its own. It should be added that total and continuous pressure of the femoral can in some cases be successfully applied and borne for a very long period without anæsthesia.

There is but little to say about the less usual methods of treatment in this form of aneurism. There is a case in which galvano-puncture was successfully used in combination with pressure on the external iliac for four hours under chloroform. The operator was Dr. Brandis, of Aix. The case is reported in the *Medical Record*, March 5, 1873.

Another case, under Mr. Herbert Page in the Cumberland Infirmary, at Carlisle, in the year 1872, appears to show the occasional utility of manipulation in aneurism, as suggested by Sir W. Fergusson. Although it is certainly open to contend that this was a case of spontaneous cure, yet as the aneurism was increasing rapidly up to the date of the manipulations, as those manipulations produced a most decided effect,

and as they were followed by the precise train of phenomena which were sought to be obtained, and which led immediately to the consolidation of the aneurism, there is no doubt that this was a case of cure by manipulation; and in this opinion Sir W. Fergusson concurred.

Two other cases were referred to, one published by Mr. Oliver Pemberton, in his Address on Surgery, of aneurism of the external iliac artery, treated and cured by direct pressure on the tumour itself; and the other a case under Mr. Gant, of aneurism in the groin following a fall, in which distal pressure, by means of Carte's tourniquet applied for two hours daily during ten weeks, effected a cure.

The lecturer next passed to the subject of arterio-venous aneurism of the femoral artery and vein. This, Mr. Holmes remarked, is not on the whole a very uncommon affection—at least, there are, he tells us, a good many examples on record, spontaneous as well as traumatic, though the latter are of course by far the most numerous.

Referring to a case of Mr. Beaumont, of Canada, described in the *Medical Times and Gazette*, July 27, 1867, the preparation of which is in the College of Surgeons Museum, the lecturer drew attention to the fact that the sac was ossified; as was the case in Mr. Perry's patient, an account of which is given in the *Medical and Chirurgical Transactions*, vol. xx. It is of importance to notice, too, that, although the superficial femoral vein was occupied by coagula, and the deep femoral vein was so pressed upon as hardly to transmit any blood, yet the anastomosing veins with the saphena so completely carried on the circulation that there was neither gangrene nor even œdema of the limb. This is a fact not to be overlooked in considering the propriety, in circumstances otherwise desperate, of tying up the artery and the vein together in operations for arterio-venous aneurism. The Professor referred next to Mr. Oliver Pemberton's case, reported in the *Medical and Chirurgical Transactions* (vol. xliv.), and remarked that the obvious inferences derived from a study of these three and other similar cases would be two. First, that the treatment must be directed to obliterate the orifice of communication between the artery and the vein, as it is from this communication that all secondary consequences of the affection seem to proceed—viz., varicosity of the veins, degeneration of the artery, œdema, pain, and loss of function of the limb. This communication may be obliterated in one of three ways—(1) by laying open the sac and tying the artery above and below; (2) by tying the artery above and below without opening the sac; (3) by compression applied to the venous orifice and to the artery above the tumour. This is best done simultaneously after Vanzetti's method; but cases have been successfully treated by first compressing the venous orifice until the latter has been obstructed by coagula—the arterio-venous is thus converted into a simple arterial aneurism, which is afterwards treated in the usual manner. Secondly, all cases which have been dissected at a late stage of the disease prove that the artery becomes so attenuated and enlarged above the tumour that no operative interference can then be successful. Hence the necessity for treating the disease decisively at first, and for abandoning operative interference if the case is not seen sufficiently early. It is a fatal mistake to delay treatment until the artery has become thinned and dilated above the sac and unfit to bear a ligature, and until the tumour has advanced to a large size and the operation for its cure becomes both complicated in its execution and almost inevitably fatal in its results. Such traumatic arterio-venous aneurisms, treated in good time by the double method of pressure devised by Vanzetti, would, in all probability, be found usually amenable to treatment; and if this fail, then Professor Spence's method is preferable to laying open the tumour, which, however, in its turn is, Mr. Holmes considers, to be preferred to the Hunterian operation.

Mr. Spence's method consists in making an incision long enough to admit of the artery being tied as it enters and as it leaves the tumour, which itself is to be left untouched. This operation of tying the artery above and below the sac of an arterio-venous aneurism appears to have been practised by Lister. In cases of spontaneous arterio-venous aneurism, we may confidently expect the artery in the immediate neighbourhood of the sac to be diseased. It is, therefore, greatly to be doubted whether such cases, if not amenable to pressure, ought to be treated at all.

Having thus completed his remarks upon aneurisms of the external iliac and common femoral trunk, the lecturer passed on to the subject of aneurism of the profunda femoris and of the smaller arteries in the thigh.

First, as to aneurisms of the profunda artery. Some of the cases in which the treatment of femoral aneurism has been unsuccessful, and which have been diagnosed as affecting the common or superficial femoral, have turned out to have been of the profunda; and there can be little doubt that the same has been true of several of those in which no anatomical examination has been made because the treatment has been successful. The Professor referred to two cases, both of which were successfully treated by compression of the common femoral, and in both the diagnosis of aneurism of the profunda was made from the circumstance that the femoral artery lay over the tumour, and that the circulation in its lower part and terminal branches was unimpeded. If an aneurism lifts up the femoral artery without interfering with its circulation, it can hardly be growing from that vessel itself, and must affect either the profunda or one of its branches—a conclusion which is further strengthened if the aneurism is cured and the femoral still less unaffected. In two cases of the disease recorded by Mr. Cook in the *Guy's Hospital Reports*, third series, vol. x., one point is common to both—viz., the intimate connexion between the tumour and the femur. In both the bone had been so pressed upon that its periosteum was destroyed for some distance. No doubt this close connexion of the tumour and the bone must much increase the resemblance to cancer.

What we know of profunda-aneurism justifies us in looking upon it as a disease whose differential diagnosis is often difficult, but which under favourable circumstances may be, and probably has been, accurately distinguished from cancer on the one hand and from disease of the femoral itself on the other.

As to treatment, it seems clear from recorded cases that aneurism of the profunda is favourably situated for the success of treatment by compression, on the failure of which the surgeon must use his own discretion whether he will tie the common femoral or the external iliac artery. In traumatic aneurism, however, if the sac seems imperfectly formed, or if there is any reason to suspect a venous communication, it would be better, Mr. Holmes thinks, to perform the old operation.

Spontaneous aneurism sometimes, though rarely, affects the branches of the femoral artery, and a case illustrative of this disease was given at some length. Cases of traumatic aneurism of the secondary branches of the external iliac or femoral were also related, attention being especially drawn to the celebrated case of the unfortunate officer operated upon by Mr. Lister, the history of which is recorded in the twenty-ninth volume of the Medical and Chirurgical Society's *Transactions*. The case described by Mr. Lawrence in the *Medical Times and Gazette*, July 2, 1853, was closely analogous to Liston's. In both the external iliac artery was tied, and in both death resulted.

Mr. Holmes forcibly argues against this line of treatment, and adds the remark that other cases more or less analogous are not wanting in surgical literature to show that a more cautious practice than Liston's may lead to a happier result. Thus a case is recorded in the *New York Medical Record*, in which the wound of a branch of the femoral artery gave rise to a traumatic aneurism, and which was treated successfully by compression.

On a review of the whole subject of femoral aneurism by the light of our present experience, the following are the main conclusions to which Professor Holmes is led:—

1. That the operation of ligature of the external iliac artery has been, on the whole, fairly successful, as evidenced by a very small mortality in uncomplicated cases of hæmorrhage and a mortality of about one-fourth in published cases of aneurism—a conclusion supported by the unpublished records of hospital practice, though a few cases of recurrence of the aneurism have occurred.

2. That the operation on the superficial femoral, for aneurism situated in Hunter's canal, is a very successful operation.

3. That the ligature of the common femoral is a perfectly justifiable proceeding; though whether more or less trustworthy than that of the external iliac artery we are not as yet in a position to judge.

4. That ruptured aneurism in the thigh has been treated with a large amount of success by the old operation.

5. That ilio-femoral and femoral aneurisms have been treated with a very fair proportion of cures in the few instances on record by rapid compression applied to the aorta or common iliac, but that there is no evidence to show that this treatment

is less dangerous or more successful than the operation on the external iliac artery, when the latter is feasible.

6. That compression, especially digital pressure, has been applied to the treatment of inguinal and femoral aneurism with striking success, though in what proportion of cases we do not as yet know. That the comparative ill-success of this method in our hospital practice is more calculated to raise doubts of the efficiency of the application than of the soundness of the method itself.

7. That in rare cases direct pressure or even manipulation may be advantageous.

8. That arterio-venous femoral aneurism should be treated by double compression, applied to the vein and artery; which failing, Mr. Spence's method of tying the artery above and below is the most hopeful measure; and when this is impracticable, either the old operation should be preferred or the case abandoned.

9. That spontaneous aneurisms of the profunda have been diagnosed and successfully treated by compression.

10. That recent traumatic aneurisms of branches of the external iliac or femoral are best treated as wounds of these vessels—*i.e.*, either by compression or by ligature at the wounded part.

## ORIGINAL COMMUNICATIONS.

# TUMOUR OF LATERAL PORTIONS OF THE LOWER JAW REMOVED WITHOUT EXTERNAL WOUND.

By C. F. MAUNDER,
Surgeon to the London Hospital.

(*Concluded from page* 4).

*Case* 2.—*Fibrous Epulis.*

(Reported by Mr. J. H. TURTLE.)

F. S., AGED 35, married, was admitted into the London Hospital on May 15, 1873, having been referred to Mr. Maunder by Dr. Dove, of Pinner.

*History.*—She stated that about a year and nine months ago, she noticed a decayed molar tooth on the right side of the lower jaw. She removed a portion of it at the time, and not long afterwards observed a growth springing from the situation of the decayed tooth. It gradually extended itself along that side of the jaw. A surgeon removed the tooth which was believed to be the cause of the growth, and afterwards the tumour. In six weeks from the time of removal it appeared again, and was a second time removed. It made its appearance a third time, and has gradually increased in size. She has been free from pain throughout. On examination, the growth was found to occupy the original site of the molar teeth. It had very much the appearance and consistence of gum tissue hypertrophied and indurated. It encroached considerably on the bone below the level of the alveolus, especially on the inner side, was very firmly adherent to it throughout its extent, as though growing from it, and the surface was continuous with the mucous membrane lining both the cheek and the floor of the mouth. Thus only some portion of the outer surface and the mere line of the base of this part of the bone were free from the growth. There was no evidence of glandular affection, and nothing to contra-indicate an operation, although the patient had not a robust appearance.

*Operation* (May 21, 1873).—The patient was seated in a dentist's chair, and the head comfortably and conveniently supported, in order that blood should readily flow out at the mouth rather than pass backwards towards the larynx and pharynx. Chloroform having been administered, the mouth was fixed open by a screw-gag, introduced and held by an assistant at the left commissure of the lips. This gag had also the beneficial effect of depressing the tongue. The operator standing in front, and somewhat to the left of the patient, placed the tip of his left forefinger on the anterior sharp edge of the right ramus immediately above the natural position of the last molar tooth. Along this, as a guide, a scalpel, its edge protected by adhesive plaster to within half an inch of the point, was carried and made to sever the soft parts down to the bone, just enough to admit the raspatory. The point of this latter was now passed through the wound made by the scalpel and pushed between the periosteum and bone, so as to separate the former from the latter, first on one side of the ramus and then on the other. In this way, also, the portions of the masseter and internal pterygoid muscles attached to the condemned bone were separated. The cutting forceps, guided by the left forefinger, were next carried to this spot, and by a little care a blade was passed on each side of the ramus, but the bone could not be cut through at this stage. The possibility of this failure had been foreseen and provided against by a small, stout, straight, narrow-bladed saw, blunt at the extremity, but without a button. This instrument, having been placed under the periosteum, upon the outer surface of the ramus, was worked through the mouth, so as to cut a groove in the bone and prepare the way for the cutting forceps, which now with some difficulty completed the section. The next step consisted in making an incision in the soft parts down to the bone and on its outer surface, opposite the position between the first molar and second bicuspid teeth, so as again to admit the raspatory. This latter was then run along directly towards the angle of the jaw, to separate the soft parts, and manipulated so as to turn round the base and come up under the floor of the mouth with a similar object. The raspatory withdrawn, the forefinger completed the further separation of the internal pterygoid and stylo-maxillary ligament, etc. The anterior surface of the bone was now cleared opposite the original interval between the teeth mentioned, and having been partially severed by the saw used perpendicularly, its section was completed by forceps. It was now found that the means which had been employed to separate the periosteum and muscles from the bone had likewise nearly separated the growth from the bone, leaving the former almost solely connected with mucous membrane. There remained then only to divide the mucous membrane, reflected on the one side from the cheek, and on the other from the floor of the mouth, and the operation was finished. While the saw was being used the jaw was steadied by the finger and thumb of an assistant grasping it on the cutaneous surface. The bleed- was slight and soon ceased. Fig. 3. shows on the healthy jaw the extent of bone removed.

FIG. 3.

22nd.—Slept for a short time during the night; swallows with difficulty; complained of slight pain in the abdominal region, which is tympanitic. Ordered.—The mouth to be often washed out with a tincture of Condy's fluid and water, one drachm of the former to a pint of the latter. Should the deglutition become more painful, enemata only are to be used, consisting of half a pint of milk and half an ounce of brandy, every four hours. Morning temperature 102·9°, pulse 136, respirations 36; evening, temperature 101·8°, pulse 120, respirations 22.

23rd.—Can swallow a little to-day, but the enemata are being used. Pain in the abdomen is very acute, and on inquiry it was found that a large quantity of air had been pumped into the bowel with the enema. To relieve the excessive tympanites present, Mr. Maunder ordered a large gum-elastic catheter to be passed into the rectum. This soon gave great relief. Morning temperature 100·8°, pulse 116, respirations 22; evening, temperature 101·6°, pulse 122, respirations 20. Ordered.—Continue the wash for mouth, also the enemata.

24th.—Patient says she feels much better; has slept tolerably through the night; deglutition easier; no pain in the abdomen, and the catheter has been removed from the rectum; tympanites gone; can put the tip of her tongue out without pain. There is a free discharge from her mouth of rather an offensive

character. Morning temperature 102·8°, pulse 124, respirations 26; evening, temperature 101·4°, pulse 114, respirations 24 Ordered.—The enemata to be discontinued. To take freely of beef-tea and milk. Continue the wash for mouth.

25th.—Complained of a slight pain on the right side of her face; otherwise doing well. Bowels have not been relieved since the operation. Morning temperature 99·4°, pulse 106, respirations 20; evening, temperature 100·4°, pulse 110, respirations 16. Ordered—an enema of soap and water.

26th.—Pain in the face is worse. She describes it as a continued aching pain located principally in the right ear and extending down the side of the neck about two inches. Morning temperature 100·6°, pulse 110, respirations 18; evening temperature 99·8°, pulse 106, respirations 22. Ordered—a hot fomentation of the neck.

27th.—Has had a fair night; pain in the face and neck is much relieved; the discharge from the mouth has still an offensive odour. Partook of some minced meat to-day.

30th.—Patient looks decidedly better; can put her tongue out a little more.

June 10.—Up to this day, when the patient got up for a short time, she has progressed favourably. She can masticate a little.

11th.—Has had pain on the right side of the face and chin since last night which has been very acute, the latter being swollen and tender to the touch. Morning temperature 100°, pulse 96, respirations 18. Ordered—a hot fomentation.

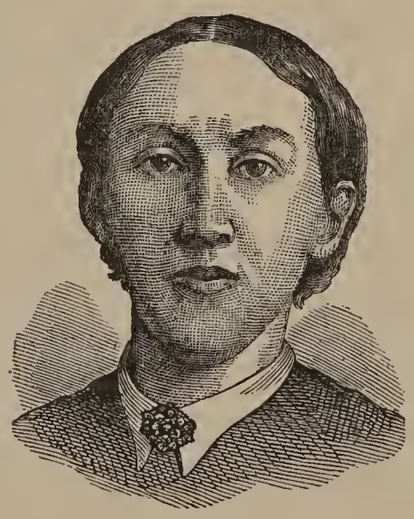
20th.—Gets up daily; some induration and tenderness still about the chin; scarcely any discharge from the mouth now.

28th.—Goes home to-day, but there is still swelling, induration, and slight tenderness about the right side of the chin.

Here Mr. Turtle's report ends.

*Postscript* (July 25).—To-day Mrs. S. came up from the country to see me, her general health being very much improved. Just under the chin to the right side of the middle line there is a small wound, which had been artificially made a fortnight previously, and also about a fortnight subsequent to her leaving the hospital, to evacuate a small abscess. From this opening, and also from within the mouth, three or four small sequestra had come away, and even then a probe introduced detected a small portion of dead bone. Between this date and October 16, when the wound closed, two or three small fragments of bone came away. Doubtless the fact that the process of exfoliation occupied so long a period is in great measure due to the existence of pregnancy, the patient having been confined on November 21, six months subsequent to operation. The symphysis being unsupported on the right side has a tendency to that direction, and consequently, excepting during mastication, the teeth in the two jaws do not accurately correspond; still she masticates well. Fig. 4 is a copy (not flattering) of a photograph of the patient, taken twelve months subsequent to operation.

Fig. 4.



*Remarks.*—The growth was doubtless fibrous epulis, sessile, and, as already remarked, attached to a large surface of bone—so much so, that it appeared impossible to remove the whole growth, and yet leave the line of the jaw unbroken; also two operations to eradicate the tumour had already been performed elsewhere. As a rule epulis is pedunculated, and can be cut away without external wound with suitable forceps with the portion of bone involved; and I need scarcely insist that such should be the practice. It is scarcely necessary to suggest that in all surgical operations as little blood as possible should be lost—for two reasons, one in the interest of the patient, the other in the surgeon's behalf. In many operations the presence of blood embarrasses the operator by interfering with his sight, even though it be only present in small quantity; and in operations about the mouth the flow of blood also adds to this anxiety, lest any find its way into the larynx. The surgeon, therefore, will take care to select the most favourable position for his patient in which to allow the ready escape of blood by the mouth, and will so time his incisions and limit their extent with similar objects in view. It will thus be observed that the order in which the respective steps of the two operations above recorded were carried out, differs. The first operation was, as it were, tentative or experimental, inasmuch as although contemplating the case, I determined to endeavour to remove the required extent of bone through the mouth; yet having never practised it on the dead subject, it was only by degrees as the operation progressed that the possibility of removing so large a portion of the lower jaw with a growth expanding its walls became evident. In the first case, the chief question was—how to lay bare the bone in order to bring the saw and cutting forceps to act upon it without serious injury to the soft parts. In the second case the chief difficulty appeared to be—and proved to be—the section of the ramus. In the first case a free separation of the cheek and chin from the tumour favoured the turning down of the chin with unexpected facility, and the raspatory readily separated the periosteum from the ramus. All this being accomplished, the bone of the young subject was cut readily. Having thus acquired some experience, I reversed the steps of the operation in the case of the adult, in some measure, only cutting so much of the mucous and submucous tissues as were essential to the use of the forceps and saw; and reserving the division of the mucous membrane reflected from the cheek and from the floor of the mouth to the growth, till the bone had been divided. By this plan, although in neither instance was there hæmorrhage in the ordinary sense of the term, still I was less embarrassed by blood in the latter case. The report of the adult case is—"The hæmorrhage was comparatively slight." No artificial means were required to arrest bleeding. In the case of the child an ordinary pair of cutting forceps was sufficient, but a similar instrument employed on the adult failed to divide the ramus. This portion of the bone is thin, but hard and brittle, and the aid of the saw is necessary. I employed the saw to make a groove in the bone, but of course to what depth it penetrated I could only surmise. I then completed the section with the forceps, but not without difficulty. My impression at the time was that the portion of bone left *in situ*, besides being a little rough at the cut surface, might be splintered longitudinally. At any rate, I tacitly determined, on future occasions, to use the saw more thoroughly, and the forceps perhaps not at all. With regard to the dimensions of the tumour of the lower jaw, which may be removed without division either of the cheek or lip, my opinion is—that such as do not prevent depression of the chin so that the mouth can be opened, or do not fill the cavity of the mouth so as to prevent the finger and instruments from reaching the ramus, may be so treated. Indeed, I should expect that in this latter event, section of the base of the bone having been effected at the required spot, the tumour and diseased portion of bone might then be so much depressed as to allow the operator to get at the ramus and divide it with a saw. Again, a tumour growing in a certain direction forwards, outwards, and downwards, as in the child above-mentioned, rather aids the operator by enlarging the buccal orifice as it drags upon the lower lip. It has been suggested that it is more desirable to remove the whole rather than to leave the upper portion of the ramus. If, in an individual case, it be thought desirable to act on this suggestion, my experience would lead me to make the attempt, with the prospect of success. Next in importance to the saving of life and of the blood of a patient, stands the prevention of deformity, especially on the face of the female. Ugly scars are to be avoided, and nerves supplying muscles of expression are to be scrupulously preserved. All three desiderata are obtained by this method of operation. Throughout the operations my anxiety was to save the whole of the periosteum. Apparently I did so, the bone in each instance coming away quite bare. To my disappointment, the reproduction of bone in the child amounts only to a thin scale, about an inch long and half an inch wide, situated in the middle of the gap caused by the removal of bone. This new production, how-

ever, is not connected with either fragment of jaw; a thin, fibrous band alone connects these latter. In each case when the patient was convalescent, some tenderness and swelling occurred about the chin; and, after a time, small fragments of bone either came away or were removed. In the child one very small piece exfoliated, in the adult several. In this latter complete recovery was long delayed by this process of necrosis, and a small abscess formed under the chin. In both instances the small exfoliations took place at the margin of the cut "body," and not at the damaged ramus, as sometimes happens to the edge of a bone divided by amputation. Possibly this drawback may be prevented by a more free use of the saw, and less of the cutting forceps, but it cannot be insured against. At any rate, should abscess form in connexion with necrosis, every effort should be made to open it within the mouth rather than externally, in order to avoid even a small scar. The knowledge of the fact that this complication arose in the progress of both cases will put the surgeon on the alert. I might also add that both patients in the early days after the operation occupied a semi-recumbent posture, and were encouraged to favour the outflow of secretions from the wound by the mouth rather than to swallow them. In contemplating sub-periosteal ablation of large portions of the lower jaw, I anticipated the reproduction of a good portion of new bone as a foundation for a dental appliance, more especially in the young subject. In neither instance has my hope been realised, nor can I expect now that it will be, four years in the case of the child and one year in the instance of the adult having elapsed. Although in these two cases the periosteum was preserved, and practically no new bone was produced, yet some at present unknown accidental (and possibly in the future appreciable and avoidable) cause may have led to this; it would, therefore, be rash to come to a positive opinion on the subject from what may be regarded as insufficient data. If I were myself to hazard an opinion concerning the non-production of bone in these instances, I should suggest that inflammatory action subsequent to operation very probably destroys the periosteum. The pain in the ear complained of in the adult was probably reflex and consequent on irritation of the divided inferior dental nerve. The absence of bleeding from the inferior dental artery was doubtless due to the division of it by laceration. In proposing to remove large lateral portions of the lower jaw, it must be distinctly understood that I refer only to cases in which the bone is the seat of tumour and not in a state of necrosis. In the latter disease, the dead bone, when operative interference is called for, is no longer in continuity with living structures, but is generally retained in its position by more or less new bone, which has been formed to replace it. To remove this sequestrum is a matter, as is well known, of comparative facility. Nature has in great measure anticipated the work of the surgeon.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## NORTH-EASTERN HOSPITAL FOR CHILDREN.

### CASES ILLUSTRATING THE USE OF THE PNEUMATIC ASPIRATOR.

(Under the care of Drs. CAYLEY and SANSOM.)

(*Concluded from page* 695, *vol.* i. 1874.)

*Case* 10.—*Empyema—Paracentesis on three occasions—Relief after each Operation.*

Walter G., aged 9 years, was admitted as an in-patient on June 10, 1874, under the care of Dr. Sansom. Patient had been under medical treatment about six weeks before for "low fever," previous to which his health had been good. Since the "fever" left him he has been gradually wasting and getting weaker daily; is troubled with shortness of breath, cough, and copious expectoration of thick yellowish sputa.

*State on Admission.*—Absolute dulness of right side of the chest behind, also in front except at apex, where the resonance is increased; breath-sounds absent behind; in front abundant mucous râles to be heard around the nipple; slight ægophony at back; respiratory movement absent on right side; intercostal spaces lost. The chest gave the following measurements:—At nipple level—left side twelve inches, right side thirteen inches; at base—left side twelve inches, right side thirteen inches and a quarter.

June 12.—Cough very irritable; expectoration abundant; appetite bad. Ordered tinct. camph. co. and oxymel scillæ ää ℥xxiv., vin. ipecac. ℥x., aquæ ʒss., 4tis horis.

13th.—Scarcely slept during the night, in consequence of incessant cough and dyspnœa. Physical signs unaltered. Aspiration was performed, and thirty-two ounces and a half of thick greenish pus evacuated. Whilst the pus was being drawn off, the cough was almost continuous; after each paroxysm the pus was observed to be streaked with blood. After the operation the cough ceased, and the breathing became quiet.

14th.—Slept well; scarcely any cough or expectoration; temperature normal; appetite good.

16th.—Much improved; has a ravenous appetite.

17th.—Coughs a little in the morning; slight frothy expectoration. Good resonance both in front and behind, as far as level of third rib; below, resonance is diminished. Exaggerated breath-sounds at apex, becoming bronchial lower down; bronchial expiration to base. Voice bronchial from second rib downwards, becoming slightly ægophonic in axilla. Condition generally improved. Puncture quite healed.

18th.—Has had a slight attack of diarrhœa; temperature 101°.

19th.—Morning temperature normal, evening 101·6°.

20th.—Morning temperature normal, evening 102°. Physical signs unaltered; dulness extends from level of third rib downwards; when lying down, resonance extends to level of fifth rib.

22nd.—General condition improved; eats and sleeps well; temperature 99·8°.

24th.—Last night the temperature rose to 103°. The physical signs continued the same: there was tenderness on pressure over the axillary portion of the right base; cough and dyspnœa returned. Paracentesis by aspirator was performed for a second time to-day by Mr. Brown at Dr. Sansom's wish, and twenty-five ounces of thick, slightly greenish, odourless pus removed. Patient apparently much relieved.

25th.—Has had a good night. No cough.

27th.—On right side, good resonance in front, diminished behind; breath-sounds good; mucous râles heard over left base; puncture healed.

30th.—Cough more troublesome; no dyspnœa; dulness on the right side extends from an inch above the nipple-level to the base. The last four days the morning temperature has been normal, but towards night it rises to a little over 100°.

July 1.—Aspiration repeated. The chest contained only four ounces and a half of brownish non-fetid pus.

2nd.—Appetite good; sleeps well; no cough; breathes quietly. During the last week the patient's general condition has much improved. He has gained flesh, and is anxious to get up.

9th.—Patient has made good progress during the last week, except that for the last four or five days he has been troubled with morning cough and copious expectoration of yellowish pus-like phlegm. His appetite continues good, and he is able to sit up for a few hours daily. Good resonance exists over the right side of the chest to a little below the nipple-level. Breath-sounds can be heard over the whole chest, becoming feeble at the base. Measurements at nipple-level: Left side twelve inches and three-quarters, right side thirteen inches. The increased girth since admission is due to the patient having gained flesh.

*Remarks.*—These cases illustrate the great value of the pneumatic aspirator in the treatment of empyema and effusion in the pleura, and there is no doubt its use is attended with much benefit in acute hydrocephalus. In the case of hydrocephalus (*vide* page 671, vol. i. 1874), the aspirator was used with decided relief to the symptoms, and the fatal termination was in no sense due to its use—indeed, it is almost certain that it was the means of prolonging the child's life. It is worthy of note that in nearly all the cases the puncture quite healed in two or three days. The duration of cases of pleuritic effusion or of empyema is very much shortened by treating them with the aspirator, and another advantage in empyema is that it is not now necessary to establish fistulous openings in order to effect a cure—complete recovery not unfrequently taking place after two or three tappings. It will be observed that in some of the cases there was marked displacement of the heart. This is a most valuable sign in the diagnosis of fluid in the chest, but it is not always met with, even when the left pleural cavity contains

a considerable quantity of fluid; therefore, if the other signs of fluid are present, but the apex-beat remains in its normal position, it may be as well to make an exploratory puncture. The danger of the puncture with the aspirator is very small, whilst the relief afforded may be the means of preventing a fatal termination. That a considerable amount of fluid may exist in the chest without displacement of the heart will be seen on reference to Case 9, which was published in the *Medical Times and Gazette* of June 27. In this case the apex-beat being in its normal position rendered the diagnosis somewhat doubtful, in consequence of which paracentesis was postponed for a few days. Meanwhile the child died; and on a post-mortem examination being made, the left chest was found to be full of pus, and the right also contained a considerable quantity.

For the notes of the above series of interesting cases we are indebted to the late House-Surgeon of the North-Eastern Children's Hospital (Mr. Gill), and the present House-Surgeon, Mr. George Brown.

## BIRMINGHAM GENERAL HOSPITAL.

### A CASE OF LEFT HEMIPLEGIA WITH LOSS OF SPEECH, OCCURRING IN A LEFT-HANDED PATIENT.

(Under the care of Dr. RUSSELL.)

Dr. Hughlings-Jackson inquired, in one of his articles some time ago, whether anyone had met with a case in which loss of intellectual expression in connexion with *left* hemiplegia occurred in a left-handed subject. The bearing of Dr. Jackson's inquiry on the subject of the almost invariable association of loss of speech or defect in that faculty, when occurring in connexion with hemiplegia, with disease in the left hemisphere of the brain, will be at once apparent.

I may quote a sentence from an abstract of Dr. Jackson's paper "On the Physiology of Language," read at Norwich to the British Association, and reported in the *Medical Times and Gazette*, September, 1868, p. 276, which has immediate reference to this subject. Having observed that it is certain that damage to the right side of the brain produces no defect of speech in most cases, it is stated that "the author has recorded a case of loss of intellectual language in a patient who was *left-handed*, but states that in other cases this explanation will not apply; and he admits that there are cases of defect of intellectual expression with left hemiplegia which cannot be explained. Some of the patients, however, have been previously paralysed on the right side, although perhaps without any accompanying defect of speech. Still, he has never seen a case of disease of the right hemisphere only as proved post-mortem, with defect of speech of any kind, but has recorded three cases in which this side of the brain (including Broca's convolution) was diseased without defect of speech."

In relation to the general connexion between loss of speech and disease in the left hemisphere of the brain, Dr. Jackson's explanation is, that though both sides of the brain are educated in speech, the left side of the brain is the leading side, and the right side is the involuntary or automatic side. In the left-handed subject of course this relation would be just reversed, and here it would be the right side of the brain which would take the initiative in intellectual expression, and injury to the right side would damage speech. Although in my present case there has been no post-mortem, there can be little doubt that the cause of the attack was hæmorrhage of moderate amount in the right hemisphere of the brain, in or near to the corpus striatum.

The history of the man's left-handedness affords a curious exemplification of the difficulty with which he acquired the power of writing with his right hand, for it will be seen that in consequence of circumstances there were two important acts in his daily life in which he had trained himself to use his right hand; of these, writing was one. Now, writing is of course learned with trouble, but the account given by the patient of himself showed distinctly that in his case the difficulty of the education in writing was increased by the obligation to use the right hand. The right hemisphere in him, and not the left, was clearly the more forward in conducting educated movements.

During the attack the patient never attempted to employ writing as a substitute for speech; but there is every reason for believing that, had he made the attempt, he would have derived no advantage, from the fact of his having trained the right hand to perform that act. If, as Dr. Jackson has shown, the essential defect which underlies all the peculiarities of speechlessness, under the circumstances now implied, is an inability to reproduce words mentally by voluntary effort, not only must actual speech be wanting, "but the internal speech, also, which corresponds to it" must be wanting, and hence all power of voluntarily translating ideas into verbal signs, whether by the lips and tongue or by the hand, is taken away.

In this respect writing and talking stand on the same level, or, rather, writing stands one degree further from the possibility of expression than talking, the individual who writes having (to use Dr. Jackson's language) to reproduce the verbal symbols internally before making the representative marks on the paper: "written or printed symbols are symbols of symbols."

The whole subject of the position of the speechless patient (speechless from the form of disease now alone implied), as regards the faculty of expressing himself intellectually, is very clearly described by Dr. Jackson in a paper on "Hemispherical Co-ordination," *Medical Times and Gazette*, September 26, 1868.

In an article on "Lord Denman's Aphasia" in the *Spectator*, January 17, 1874, the writer analyses the condition of the patient in a similar manner, and comes to the same conclusions; he, however, terminates with propounding the difficult question—"Will anyone maintain that in such a case language was essential to thought, as has been maintained so often?"

*Case.*—J. A., aged 69. He had an attack of left hemiplegia six months ago. He went to bed as well as usual, but on awaking found himself unable to use his left arm; his leg was also affected, and also the left side of his mouth. His son states that he could not speak to be understood for three weeks after the attack; then he gradually acquired power to speak a few words. At first he was perfectly unintelligible. "If he tried to speak, he made a bungle of it; the effort was too much for him, and he had to give it up as a bad job." They did not hear him miscall words at any time, but he often "stuttered and spoke thick." At present, though in slow talking his power of speech is perfect, at the least hurry he falls into considerable hesitation and stuttering. His left hand also has not fully regained power, and the left angle of the mouth is somewhat weak. He writes with the right hand intelligibly but badly, saying that he has become too weak to command his pen. The heart-sounds are healthy; urine is free from albumen; his hair is quite white, but there is no evidence of degeneration of the arteries. Both he and his son state that he is left-handed—"using the left hand as others use the right." "From quite an infant the left hand always seemed the readiest." When at school he was compelled by his master to learn to write with his right hand, and consequently he has always written with his right hand. He could have written better at school with his left, but they would not let him; but he always used his left hand when he had a chance. In another act he also uses the right hand. Of late years he has only done field-work, but formerly he was a needle-filer, and the apparatus was arranged for a right-handed man. Here, again, he had difficulty in acquiring the power of employing his right hand with the file—"It was gainer with the left."

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Enemata of Chloral in the Vomiting of Pregnancy.—Dr. Simmons, of the Yokohama Hospital, Japan, relates four cases in which chloral administered by the rectum in thirty-grain doses, in mucilage, proved of speedy efficacy. In future cases he intends commencing with larger doses, and he believes that the remedy so employed will be found useful in most cases of nervous or sympathetic vomiting, where there is no inflammation present.—*New York Med. Record*, June 1.

Wadding Dressing after Avulsion of the Ingrowing Toe-Nail.—M. Verneuil observed, in reference to a case on which he had just operated, that he produces in these cases local anæsthesia by means of ether or pounded ice, and after having torn off the nail he applies a layer of wadding to the wounded surface, and then envelopes the whole foot in a thick sheet of the same material, subjecting it at the same time to strong compression. The patient suffers no pain except immediately after the operation, and this ceases when the compression is effectually made. After the second day the patient, with his foot thus protected, is enabled to make some use of it in going about his affairs; and the bandage not requiring to be renewed for a week, he is spared the pain of daily dressing. At the end of that time a somewhat smaller piece of wadding may be applied.—*Révue Méd.*, June 15.

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# Medical Times and Gazette.

SATURDAY, JULY 11, 1874.


## GENERAL MEDICAL COUNCIL.

A little while ago it seemed difficult to suppose that the approaching session of the Council could be a long one, but we now know that business that may very easily give rise to a considerable amount of debate, or of conversation, has been already provided. First and foremost there is what we suppose will prove to be the *pièce de résistance*—the Reports of Visitations of Examinations. They are the first reports made since visitors were elected from outside the Council, and it is rumoured that they speak in by no means a honeyed or complimentary tone of at least some of the examinations commented on. We have heard that only one English licensing board has been visited, all the remaining reports being on Irish and Scottish bodies; and it is said that one of the Irish bodies altogether refused to allow the examination papers to be inspected. If, indeed, rumour speaks at all truly, we may expect some very warm and wordy speeches on the reports.

Then that long-postponed Report on Professional Education will again, we suppose, be brought up for discussion, and, if actually entered upon, will probably occupy a long time.

Dr. Aquilla Smith has given notice of motion "for the appointment of a committee to prepare a new edition of the British Pharmacopœia, to be ready for publication in January, 1877." The committee to consist of five members, three of whom are to be appointed by the Council, and two by the Pharmaceutical Society, who are to be "associated on equal terms" with the other members. The members are to be paid for attendance at the meetings of the committee "on the same scale as members of the Executive Committee," and one of them is to be chosen to act as secretary, and to be paid something "in addition for each meeting." The notice of motion contains fourteen clauses, some of which will excite or admit of not a little discussion.

And then Sir Dominic Corrigan has given notice of a "draft of proposed Bill to amend the Medical Act of 1858." This Bill proposes that a new board of examiners shall be established, which shall be "an examining board only, without any power to inquire into or lay down courses of education or study;" that it shall be called the "Civil Medical Board"; that it shall consist of "five examiners from England, five from Ireland, and five from Scotland," who shall be elected by the General Medical Council; that the examiners shall be appointed for three years, and shall not be eligible for re-election until after an interval of three years; and that members of the Council shall not be eligible for appointment on it. The business of the new Board is to be the examination of candidates who already "have passed the double examination in medicine and surgery, and obtained their degrees or licences to practise medicine and surgery from bodies legally entitled to grant such degrees and licences, and have been duly registered." These previously duly qualified and registered medical men may, after passing the new Board, append to their names "the letters C.M.B.," signifying Civil Medical Board; and without those magic letters no medical man is to be entitled to hold any public appointment, or to be appointed to "any friendly or other society for affording mutual relief in sickness, infirmity, or old age." Finally, the fee for examination and certificate from the C.M.B. shall not exceed £5; and all the expenses of the new Board over and above the amount of the fees are to be paid out of her Majesty's Treasury.

Of all the proposals that have been made for the reform of the examining and licensing bodies, we have here surely the most extraordinary and impossible. A new examining board is to be added to the number of the now existing boards, and the old ones are not merely to be allowed to live, but compelled to live and examine, for every candidate for the new qualification must already possess qualifications to practise, granted by some other licensing body or bodies. The one-portal or conjoint examining board idea is ignored,—and that is not to be wondered at, seeing who is the author of the new scheme; but at the same time a thorough distrust is shown of the competency and trustworthiness of the old licensing bodies. A private individual may, as such, commit the care of his health and life to anyone he likes; but no medical man shall be considered fit for any public appointment, whatever his qualifications may be, unless he has been re-examined by the new Board, and has, in addition to other qualifications, been stamped with their brand, the C.M.B. Most probably the whole thing is a big joke on the part of the Irish baronet; and we more incline to this view on looking at Clause 6, which provides for the payment of the expenses of the C.M.B. Sir Dominic must have thought that the General Medical Council might in some strange mood be brought to accept his Bill, and he therefore took care to guard against any possibility of its ever becoming law, by inserting a clause which would make Her Majesty's Treasury liable for part of the expenses of a body over the constitution and conduct of which Her Majesty's Government would have no control whatever. Can anything be imagined less likely to receive Government support, or to be passed by Parliament?

What will the Council say or do about the Conjoint Examination Board schemes? Is there any increased hope or probability that these schemes can be carried into effect? In Scotland the efforts to form one Divisional Conjoint Board have totally failed; that was openly confessed last year. In Ireland the failure seems to be nearly as complete as in Scotland; the Queen's University has refused to join in the formation of a Conjoint Board, and the Fellows of the College of Surgeons have so strongly opposed the scheme which the College had consented to be a party to, that that body has been compelled to reconsider its decision. And in England the prospect is anything but encouraging. It is true that the University of London obtained last year an Act

enabling it to unite and co-operate with other licensing bodies in conducting examinations; and that an Act has just been passed to enable the Apothecaries' Society—the only body that was till now left out in the cold—to enter the Conjoint Scheme. But there are two very important differences between the enabling Bill obtained by the Apothecaries' Society and that obtained by the University of London. First, the Medical Act (University of London), 1873, provides that no by-law made in pursuance of the Act shall be of any force unless it has the assent of one of her Majesty's principal Secretaries of State, which assent such Secretary of State may at any time revoke. But in the Apothecaries' Act Amendment Bill, the power given to the Society "to unite and co-operate with any one or more of the colleges and bodies mentioned in Schedule (A) of the Medical Act, 1858," in appointing examiners and conducting examinations, is made "subject to the approval of the Privy Council," and "may be at any time withdrawn by the said Privy Council."

The second difference is of still more vital importance as concerns the Conjoint Examination Scheme. The University of London Act provides that "it shall be lawful" for the governing body of the University "to prescribe, by a by-law under the common seal of the said University, that no person shall become a Doctor, or Bachelor, or Licentiate of Medicine, or Master in Surgery of the said University, unless," in addition to passing the examination and complying with the by-laws of the University, he shall have passed the examination and complied with the requirements of the Conjoint Examining Board. But in the Apothecaries' Amendment Act no such provision is made. The Society expressly reserves its right and its obligation to enter on its list of licentiates "any woman who shall have passed such examination and fulfilled the other general conditions imposed upon persons seeking to obtain from the said Society a qualification to be registered under the Medical Act, 1858"; and it does not take power to refuse to admit any other candidate who has complied with those conditions and passed those examinations, unless the Conjoint Board examination has been passed. According to our reading of their Act, they will still be obliged, under their old charter, to admit to their licence any candidate who, having complied with their regulations, prefers to present himself for their single qualification to undergoing the longer and much more expensive examination of the Conjoint Board—this costing thirty guineas and the other only six. If, then, the Conjoint Board is established in England under these circumstances, men may still choose whether they will become registered practitioners through the Conjoint Board at a cost of thirty guineas, through the Apothecaries' Society of London at a cost of six guineas, or through some Scottish or Irish licensing board, from which they may get a double qualification on easier terms as to examination and cost than from the English Conjoint Board. It may be questioned whether it is not time for the General Medical Council either to give up altogether the effort to form conjoint boards, or to go to the Legislature with the confession that they cannot form them without the help of compulsory powers.

## TESTIMONIALS.

Division of labour is one of the greatest outcomes of civilisation. By its aid we get thousands of things, great and small, done for us which in a rude and primitive state of society each had to do for himself or to leave undone. Thus, to speak of small things, we have our notes or cards of invitation and of "return thanks" printed or lithographed for us, instead of having to write them ourselves. If we wish to send out begging-letters for votes, for aid for a charity, for what not beside, we seek the aid of the printer or lithographer; and on many other intersocial and business occasions these artists save time and labour for us. No doubt, however, many new fields await the application of this grand principle—the division of labour,—and we have just seen what, according to our experience, is one of the latest developments of it, if not the latest. A very important chair is vacant in one of our northern universities, and we have before us, from two of the candidates for the vacant professorship, lithographed or zincographed letters of application for testimonials. In one letter at least the name of the university appears to have been *written in*, as though the letter were a stock-form kept in readiness for any opportunity that might arise; but all else is lithographed, we believe,—even the signatures of the candidates. Of course, the name of the gentleman to whom the letter is addressed is written in at the foot. Now, we must suppose that these letters are distributed broadcast—are sent to every man whose reputation or position is such that his name may be thought likely to influence the electors. If not, why are the letters lithographed? Probably the men whose judgment and knowledge of the fitness of any candidate for the appointments in question ought to have any great weight might be counted on the fingers of two hands, and they might therefore have very easily been *written* to. Is it not, then, a fair inference that the mere number of testimonials sent in is expected to tell in favour of a candidate? And, unhappily, in so far as the gathering of a mass of more or less complimentary writings goes, this system of testimonial-touting is only too likely to be successful. Few men like to refuse to send back some kind of a complimentary reply, and fewer still would have strength of mind enough to write what, in a vast number of cases, would be the bare truth—to say, for instance, "I have never had the pleasure of hearing Mr. So-and-So lecture, and do not know anything practically of his teaching power; nor have I time to read any of his works, a list of which he has been kind enough to send me, but I understand that he has done such-and-such things, and therefore I have much pleasure in," etc., etc. But the multitudinous testimonial system is, we venture to say, a thoroughly bad one. It is derogatory to those who thus hunt to pile up the testimonials; it is an irksome and thankless tax on those who are applied to to write them; and a grievous burden and nuisance to those who ought to examine and value the piles of testimonials sent in to them; and the mass of the testimonials gained by it have no real value whatever. We will allow, however, that this plan of lithographed circulars has one virtue—it very nearly amounts to a *reductio ad absurdum* of multitudinous testimonialism. Two things more would make the absurdity complete. Lithographed forms of recommendation, varying in force, and having a blank space left for the name of the candidate, should be kept on hand, and two or three of them (so as to admit of a choice), and a ready addressed and stamped envelope, should be enclosed with the letter of application; and a certificate should also be sent from the candidate's publisher, testifying what books of his had been published, their price and weight, and the number of copies that had been sold.

This certificate would have quite as much real value, to say the least, as a list from the candidate himself of all his writings, with laudatory comment on them, extracted from notices in reviews, journals, and newspapers, even though these should make up, as in one of the instances before us, an octavo pamphlet of fifty pages.

We will, however, add one word of warning to candidates who put their trust in quantity of testimonials. Some, at least, of any board or committee of electors, may probably think that while, to adopt Mr. Disraeli's apothegm regarding votes, testimonials should be weighed as well as counted, yet that the weighing thereof should not be by avoirdupois measure.

## THE NATURE AND ORIGIN OF TYPHOID FEVER CONSIDERED MORE ESPECIALLY WITH REGARD TO ITS PREVENTION AND TREATMENT.(a)

### II.

Nothing seems more surprising in the history of fevers than the long time which elapsed before enteric fever was recognised by the majority of the profession as a separate and distinct form of fever. Only towards the middle of last century do we find distinct intimation of its existence—first in the writings of Ebenezer Gilchrist, of Dumfries, and a few years later in a more distinct and unmistakable fashion, by Huxham in his celebrated "Essay on Fevers." The name then commonly given to it was "nervous fever"; and Huxham especially draws a clear distinction between it and the putrid malignant petechial fever, then well enough known, and now distinguished as typhus. Why this should be we can hardly explain, for morbid anatomy had been studied long before this; and surely the lesions of typhoid are plain enough and manifest enough to have attracted the attention of morbid anatomists, even of those days. The only way in which, it seems to us, this absence of (strictly speaking) enteric phenomena can be accounted for is by the universal prevalence and great fatality of petechial fever, which carried off those who, in times when this fever is less common, are carried off by typhoid. But this notable absence, if we can call it so, points strongly to the specificity of typhoid, and the necessity of something more than mere filth to generate it.

There is no more interesting record than the mode in which our knowledge of typhoid or enteric fever was by degrees developed. No one did more in this direction than Dr. A. P. Stewart when working in the Glasgow Fever Hospital; but it was reserved for Sir William Jenner especially, in one of the most admirable series of lectures ever published in the columns of this journal, to demonstrate the essential characters of this malady. But whilst our knowledge of the disease itself was increasing rapidly, our knowledge of its causation long remained mysterious. Dr. Stewart had remarked, that whereas typhus as a rule originated from effluvia from living bodies in close and ill-ventilated localities, typhoid often appeared in country places and in well-ventilated houses; but "beyond this all was vague and uncertain." Bretonneau, the distinguished physician of Tours, whose views were published between 1820 and 1829, and who was one of the first to insist on the specificity of the disease, also insisted that it spread directly by contagion. Even in 1858, Dr. Tweedie, lecturing here in London before the College of Physicians, held that the origin of typhoid was "obscure and unknown"; but in that same year Dr. Murchison, in an admirable essay read before the Royal Medical and Chirurgical Society, undertook to show that whereas putrefying animal matter, especially sewage, had long been held to be among the causes of fever, it invariably gave rise to one form of the malady only, and that was the so-called enteric fever. "This mode of origin," he held, "explained why enteric fever was endemic in many places, but often epidemic in circumscribed localities; why it attacked the rich as well as the poor; why it occurred in isolated country houses as well as in large towns; and why it was most prevalent in autumn and in warm seasons." The importance of these views it would be hard to over-estimate; the influence they have had in promoting sanitary measures in town and country is incalculable; and there cannot be the slightest doubt but that this influence is and has been highly beneficial. Nevertheless, their soundness is doubtful, and it behoves us to look most carefully into the grounds which are advanced as sufficient for receiving them. In dealing with such evidence, it is hardly possible, even were it not demanded by the rigorous rules of logic, to overlook its nature. We proceed solely by the rules of exclusion. Given an outbreak of typhoid fever in a certain locality, to find its cause we proceed to find out what is common to all the instances and what belongs to each exclusively. Say we find nothing in common but a water-supply which is tainted by sewage. Whether this be enough or not to cause the outbreak, is the point at issue; but if we can go a step further, and show that the tainted water is tainted with typhoid dejections, it would surely be stopping short of demonstration to say that it was the sewage matter, and not one particular kind of sewage matter, which caused the outbreak.

So, too, it seems to us, is the logic defective when sewer-gases are called into play as the agents of contamination. Surely no one cognisant of the rudiments of sanitary knowledge would say that sewer-gases invariably cause typhoid fever, or where, alas! would we Londoners be under certain conditions of the atmosphere when the houses are mainly ventilated through the water-closets. But if, therefore, sewer-gases do not invariably produce typhoid or any one specific form of disease, but only produce them occasionally, we must seek for something specific in those forms or kinds of sewer-gas which do so. In short, on this argument it is not sewer-gas which generates typhoid fever, but sewer-gas *plus* something which we must find out, and which many say are the specific germs of typhoid, as specific as those of small-pox or scarlet fever. Moreover, recent experience has clearly shown that there are modes whereby typhoid fever may be propagated, which were altogether unsuspected when some of the earlier outbreaks were recorded; and until these possible modes of infection can be eliminated, which now is impossible, any attempt to clearly and distinctly trace their exact causation must be given up in despair.

(a) "Lectures on Fever," delivered in the Theatre of the Meath Hospital and County Dublin Infirmary, by William Stokes, M.D., D.C.L. Oxon., F.R.S., Regius Professor of Physic in the University of Dublin, Physician to the Queen in Ireland; edited by J. W. Moore, M.D., F.K.Q.C.P., Assistant-Physician to the Cork-street Fever Hospital, etc. London: Longmans. Pp. 439.

"A Treatise on the Continued Fevers of Great Britain," by Charles Murchison, M.D., LL.D., F.R.S., F.R.C.P., Physician and Lecturer on the Principles and Practice of Medicine, St. Thomas's Hospital, etc. Second edition. London: Longmans. Pp. 729.

"Typhoid Fever: its Nature, Mode of Spreading, and Prevention," by William Budd, M.D., F.R.S. London: Longmans. Pp. 193.

## THE HOSPITAL SUNDAY FUND.

Although at first it was thought, from the considerable falling off in the amounts collected at several of the larger City churches on June 14, that this year's Hospital Sunday Fund would not amount to nearly as much as that of last year, we hear that the sum received at the Mansion-house up to the present time already exceeds the entire result of last year's appeal, about £28,000 having been paid in up to Thursday. This result is chiefly due to two causes—(1) a large addition to the number of churches whose offertories on Hospital Sunday were devoted to the Fund, and (2) a marked increase in the collections at many churches, notably those of the West-end. The following is a list of the larger places of worship whose offertories exceeded those of 1873, and the amounts collected on each occasion:—

| | 1873. | | | 1874. | | |
|---|---|---|---|---|---|---|
| St. Peter's, Eaton-square | £391 | 4 | 5 | £512 | 12 | 1 |
| St. Stephen's, Westbourne-park | 400 | 11 | 0 | 404 | 3 | 6 |
| Westminster Abbey | 291 | 4 | 7 | 330 | 11 | 5 |
| St. Michael's, Chester-square | 138 | 5 | 0 | 259 | 11 | 10 |
| St. Andrew's, Wells-street | 201 | 5 | 9 | 232 | 15 | 5 |
| Holy Trinity, Paddington | 248 | 2 | 0 | 257 | 7 | 3 |
| Metropolitan Tabernacle (Mr. Spurgeon's) | 166 | 4 | 0 | 210 | 0 | 0 |
| Grosvenor Chapel | 174 | 7 | 0 | 176 | 14 | 2 |
| Holy Trinity, Knightsbridge | 126 | 10 | 0 | 175 | 0 | 0 |
| St. Pancras Parish Church | 153 | 7 | 4 | 167 | 11 | 0 |
| St. Michael's, Paddington | 145 | 17 | 0 | 160 | 12 | 1 |
| All Saints', Knightsbridge | 99 | 19 | 5 | 156 | 7 | 4 |

| | 1873. | 1874. |
|---|---|---|
| St. James's, Marylebone | £143 2 6 | £150 0 7 |
| St. Mark's, Hamilton-terrace | 94 8 8 | 148 10 6 |
| St. Stephen's, South Dulwich | 90 0 0 | 103 0 0 |
| Holy Trinity, Upper Chelsea | 12 15 0 | 100 0 4 |
| Parish Church, Kidbrooke | 100 0 0 | 102 19 6 |
| Holy Trinity, Brompton | 17 12 11 | 86 12 11 |
| St. Luke's, Redcliffe-square | 18 0 0 | 75 0 0 |
| Congregational Church, Lewisham | 50 10 0 | 61 0 0 |

Thus twenty churches exhibit an aggregate increase of more than £760, whilst there are a considerable number which have contributed this year for the first time. Of these the most important are—Quebec Chapel, Marylebone, £407 8s.; St. Jude's, South Kensington, £260 4s. 10d.; St. Peter's, Onslow-gardens, £253 2s. 6d.; St. James's, Piccadilly, £232 6s. 3d.; St. Paul's, South Hampstead, £120 2s. 4d.; City Temple, £114 3s. 9d.; St. Marylebone Parish Church, £102 14s. 1d.; St. Peter's, Bayswater, £121; St. Paul's, Onslow-square, £145 12s. 1d.; St. Mary Abbot's, Kensington, £124 2s. 6d.; St. George's, Hanover-square, £141 15s. 9d.; St. John's, Notting-hill, £81 17s. 2d.; Christ Church, Kensington, £58 2s. 6d.; St. James's, Buckingham-gate, £56 4s. 6d.; Holy Trinity, Clapham, £57 16s. 6d.; St. Saviour's, Upper Chelsea, £60 14s. 9d.; and Christ Church, Marylebone, £76 18s. 6d. At the following large and important places of worship the collections exhibit a decrease from last year, amounting in the aggregate to more than £700 :—

| | 1873. | 1874. |
|---|---|---|
| St. Paul's Cathedral | £509 18 8 | £275 9 11 |
| Paddington Parish Church | 366 2 10 | 338 2 10 |
| Temple Church | 367 7 5 | 293 9 5 |
| Regent-square Presbyterian Church | 121 7 11 | 110 0 0 |
| Holy Trinity, Marylebone | 186 15 1 | 165 0 0 |
| St. Paul's, Knightsbridge | 276 8 8 | 272 0 0 |
| Greek Church, London-wall | 203 17 3 | 148 1 0 |
| Chapel Royal, St. James's | 102 2 4 | 79 11 0 |
| Chapel Royal, Whitehall | 82 12 1 | 76 11 7 |
| Christ Church, Gipsy-hill | 109 15 11 | 70 17 8 |
| St. Gabriel, Pimlico | 100 8 4 | 70 19 4 |
| Female Lock Hospital Chapel | 100 8 2 | 85 10 3 |
| St. Margaret's, Lothbury | 101 4 4 | 85 5 3 |
| St. Mary's, Paddington | 114 14 0 | 86 10 7 |
| St. Matthew's, Denmark-hill | 109 10 0 | 84 3 0 |
| Hare-court Congregational Chapel | 101 13 11 | 75 2 1 |
| Holy Trinity, Sydenham | 90 13 0 | 64 0 0 |
| St. George's, Tufnell-park | 73 14 1 | 64 9 8 |
| Bickley Parish Church | 77 7 7 | 62 0 5 |
| St. Giles-in-the-Fields | 82 13 6 | 67 11 4 |

There are also several churches, which contributed large sums last year, from which no remittances for the present year have as yet been received at the Mansion-house. It is possible that the collections from some of these may yet be forthcoming, or the sums may have been given to local charities. Be that as it may, it must be admitted that Hospital Sunday has this year proved to be rather a disappointment, for if last year, with imperfect organisation, £27,000 was realised, a very much larger sum should have been forthcoming this year. Indeed, had the total reached £50,000, it would not have exceeded in proportion the amounts usually realised by the Hospital Sunday collections in Manchester, Liverpool, and other provincial towns.

## THE WEEK.

### TOPICS OF THE DAY.

The Act of Parliament of 1863 for the regulation of bakehouses seems to have been a dead letter in Sunderland. The local authorities of the borough, strange to say, have never enforced its provisions in any way. They, however, appear now to have awakened to a sense of the importance of this long-neglected duty. Dr. Yeld, the Medical Officer of Health, has recently inspected the whole of the bakehouses in the borough, and his report to the Health Committee shows that almost every clause in the Act has been infringed. He reports that the number of persons employed under eighteen years of age is twenty-six; that in forty-one out of 144 bakehouses the ventilation is insufficient—in five instances it is described as bad, and in three as very bad. The condition of the bakehouses as to cleanliness is that 117 are returned as clean, eighteen dirty, and nine very dirty, and that twenty-five bakehouses are also used as sleeping-rooms in direct contravention of the Act. The Medical Officer, under a proper sense of the culpability of the local authorities in the matter, has seen that it would be invidious to prosecute the offending parties under the circumstances, and has recommended that copies of the regulations be printed and issued to every occupier of a bakehouse, giving notice that the regulations of the Act must be strictly adhered to, and that any infringement of the same will be dealt with as the law directs. We hope these recommendations of the Medical Officer will be adopted by the Committee, and that the law will no longer be permitted to remain a dead letter.

We understand that the representatives of the German Government, at the approaching International Congress at Brussels, have been instructed to bring before the Assembly, on the Geneva Convention being discussed, the desirability of making all officers and all soldiers acquainted with the conditions of the Convention respecting ambulances, surgeons, and the wounded and their treatment. It appears that the German surgeons, who were obliged after the battle of Weissenburg to take up wounded French soldiers in their hospitals, found that the latter did not in most cases even know what the white band with the red cross signified. French surgeons of high rank, who appeared in the same hospitals afterwards to look after their fellow-countrymen, did not, it is said, even possess the badge ordered to be worn by the Geneva Convention.

With a view to the prosecution of the parties answerable for sending the girl Fox, whilst suffering under small-pox, from Hastings to London, and thence on to Willesden by railway, the Metropolitan Asylums Board brought the matter to the notice of the Local Government Board. The latter have replied to the communication, and stated that they did not see that the law had been infringed by any person but Mary Fox herself. The Metropolitan Asylums Board deem this answer so unsatisfactory that at their meeting on Saturday last they resolved to write again to the Local Government Board and state "that it is the opinion of the managers, the case of Mary Fox is of such importance as to require, in the interests of the public, further investigation."

Dr. Watson, who has filled the office of Senior Demonstrator of Anatomy in the University of Edinburgh, is a candidate for the recently instituted Chair of Anatomy at Owens College, Manchester.

There is a vacancy at the Westminster Hospital School of Medicine for a Demonstrator of Anatomy, in consequence of the resignation of Mr. George Brown, M.R.C.S., who acted as Joint-Demonstrator with Mr. Cook during last winter session.

### RECRUITING FOR THE ARMY.

It is reassuring to find that the subject of recruiting for the army is not allowed to drop out of sight, but that one General after another brings the question before Parliament, in each instance pointing out the unsatisfactory state of affairs as they now stand. On the 26th ultimo, Lord Strathnairn moved for certain correspondence in connexion with general orders issued in 1871, relating to recruiting, and in doing so he charged the late Government with a breach of faith in not maintaining the long-service system intact, so far as concerned those soldiers who chose to enlist under it, by which means the soldier had no longer any chance of obtaining a pension.

Lord Cardwell defended the measures taken by himself and his colleagues, and stated that as the Act relating to short-service enlistment was only passed in 1870, the large addition to the reserve which he had calculated on could not be looked for until the year 1876. Earl Grey maintained that the state of both army and reserve was very unsatisfactory, contending that whilst the system of short service was the only one on which it was possible to have an efficient reserve, the proper measures had not been adopted to make this policy successful, the great necessity being that a soldier should in every instance have an assurance of obtaining a pension after a certain period of service. The Duke of Cambridge explained that the long-service enlistment for the infantry had only been suspended for a time; the suspension had now terminated, and both long and short terms of enlistment were again in operation, subject to this condition: that a certain number of recruits must be enlisted in either way.

The smallest concession which will tend to increase the popularity of the service must be looked upon as a step in the right direction. The number of vacancies annually occurring from death, invaliding, and desertion, already tax our powers severely to keep up a thoroughly effective army, and it was with something like a feeling of dismay that we read the following startling information in a contemporary:—

"It is a curious fact that, as sanitary improvements increase in India, the health of our forces appears every year to be becoming more precarious. Instead of long marches in a primitive manner, the men are now moved from place to place by rail, and on scientific principles. We study the age most suitable for Indian recruits. Instead of soldiers being abandoned to idleness, sensible officers in command of regiments encourage the men to work of various kinds—physical and mental. Water-supply, quality of food, regulation of hours for parade, for meals, and for all besides, have become reduced to an elaborate and minute system. Yet still our end is not attained. Officers of experience say that the men are more languid and listless than in the old days, when a regiment was marched, by easy stages, over immense distances, and when sanitary philosophy, as applied to military affairs, was in its infancy. On the other hand, when a regiment is leaving India, there are generally plenty of volunteers to remain. The men like the country when once they have become accustomed to it, and in many cases prefer to stay under the hot sun to returning home. If they are deteriorated in stamina they are not conscious of the deterioration, or are willing to waive the question, in view of the social advantages secured in India. In view, however, of possible contingencies, the question of the health and stamina of our army in India is of the first importance. Our forces ought to be second to none in the world for perfection of physique, as well as for quality of arms and efficiency in discipline. History presents never-to-be-forgotten records of the deterioration of armies in consequence of their transfer from a cold to a warm climate, or from a land where men are expected to attend to their own wants to a land where a soldier has servants, camp-followers, etc. Perhaps this is the strongest argument in favour of the amalgamation of the Imperial and the Indian armies. The Crown can secure, as the Company could not, a constant flow of men to and from the East."

If the foregoing view of the case be the correct one, there is additional and urgent reason why the question of recruiting should be thoroughly and comprehensively dealt with until such a system has been devised as shall insure an ample and efficient supply of men to counteract the steady and continuous drain which is annually taking place.

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### MEETING OF THE GENERAL MEDICAL COUNCIL.

At two o'clock the President took his seat for the first time under a roof which may be said to belong to the Council itself, and which, though yet in an unfinished state, is certainly far superior to the old quarters in Soho-square. That the Council has been able to meet here is, we may say, almost entirely due to the indefatigable exertions of Dr. Quain, who has laboured night and day for this desirable consummation. The rooms are most commodious, and will, when properly fitted, be admirably adapted for their purpose, but we reserve our description until we see them more complete. On calling the roll all members replied to their names save Sir Dominic Corrigan and Dr. Leet, who were absent on important business at the Houses of Parliament. Four new members had to be introduced. Dr. Warburton Begbie, who occupies the first position as consulting physician in Scotland, succeeds Sir Robert Christison as a representative of the Crown, and certainly there could be no more worthy successor to such an able predecessor. Dr. Alexander Wood will be missed, not only for his business qualities—which were great,—but also for his eloquence, which often held the Council, we might almost say, spellbound. To him succeeds Dr. Rutherford Haldane, as representative of the Edinburgh College of Physicians; and, if report says truly, Dr. Haldane is not one whit worse business man than Dr. Wood. Dr. Turner also appears in the room of Dr. Macrobin, as representative of the Universities of Aberdeen and Edinburgh—a worthy addition to the Scottish phalanx. From Dublin comes Mr. Macnamara, in the room of Mr. Hargrave, whose position with regard to the Irish College of Surgeons had become untenable.

These having been in succession introduced, and taken their seats, Dr. Paget proceeded to deliver his opening, and at the same time valedictory address. This we elsewhere print in full, and of it there can be but one opinion—that it is in every respect worthy of the high character of its author. The closing passages are, we think, most dignified, and alike worthy of the speaker and his audience. On its conclusion Dr. Paget left the chair, and Dr. Stokes was called to it for the time being, when a hearty vote of thanks to the retiring President was proposed by Dr. Andrew Wood, seconded by Dr. Aquilla Smith, and carried with acclamation. The same two gentlemen next proposed that Dr. Paget be re-elected President, and this too was carried unanimously. In thus electing Dr. Paget to a second term of office the Council may be congratulated on being able to retain the services of one who has filled the post of President most efficiently in every way. We may be sure that if Dr. Paget undertakes these responsible duties he will do his utmost to fulfil them as they ought to be fulfilled, at whatever loss of personal comfort and convenience. It is always a great loss when one so intimately conversant with business as is Dr. Paget resigns office, and we think the profession at large is indebted to him for his disregard of self in again undertaking such onerous duties.

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### THE SANITARY STATE OF HACKNEY.

Dr. Tripe, Medical Officer of Health of Hackney, in his full and elaborate report for the past year, draws attention to the civil condition of persons aged fifteen and above in Hackney, and to the fact of the very early age at which a rather large number of the wives had married—145 being under fifteen, and 1770 under twenty years of age. The total deaths were 2594; 443, or 17·1 per cent., belonged to the epidemic class. The deaths from the chief epidemic diseases were much below the average of most preceding years, 380 only having been registered, against 490 in 1872, 751 in 1871, and 451 in 1870. Dr. Tripe here remarks that he does not expect so favourable a report for 1874 or 1875, "as it is most probable that measles will prevail in the former year, and scarlet fever in both years, being worst in 1875, or the epidemic of scarlet fever may not occur until 1875, reaching its culminating point in 1876. There were 10 deaths from these causes in each 68 deaths, but only 1 death in each 355 inhabitants, which is very small." The infant mortality was very high, owing to the large number of infantile deaths from diarrhœa, convulsions, bronchitis, premature birth debility, and atrophy. The total number of deaths

under five years was 1028, or 39·6 per cent. In connexion with the analytical work, Dr. Tripe states that the Committee considered the retention by the police authorities of the penalties inflicted under the Act as most unfair towards the local authorities, who have all the trouble and expense of procuring a conviction. He, under the direction of the Committee, applied to the Secretary of State for the future penalties. The answer received was to the effect that the penalties under the Act are payable to the receiver of police, and not to the vestry; and the Under-Secretary of State referred to the decision in the cases of "Wray *v.* Ellis, Ellis, and Ellis." Dr. Tripe remarks on the provision of dwellings for the poor, and says:—

"It seems almost hopeless to expect that all the metropolitan vestries and boards of works would carry out plans similar to those which have been so successful in Glasgow. It is also a question if such extensive powers, as are necessary for raising the necessary funds, should be entrusted to any one public corporation. There is also another difficulty amongst the poor themselves, as they prefer occupying a certain class of houses wherever they can do so, and overcrowding will to a certain extent take place, even when better houses are provided. The portion of income which can be set aside for rent will be, as a rule, in proportion to the earnings, and not to the accommodation required; so that persons with very small incomes and large families will always, more or less, overcrowd their rooms, unless in model lodging-houses, where they are somewhat controlled. A great deal has been done in this district for the prevention of disease, but your sanitary staff is powerless to amend the original structural defects in very many houses, and therefore much which we object to remains unaltered. It is obvious if the powers of pulling down houses more or less unfit for human habitation be strictly enforced, without any corresponding powers to compel the owners to build them up again, the overcrowding is likely to be made worse and greater injury to health sustained, as an overcrowded dwelling is more injurious to health and mortality than one which is badly constructed."

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### KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

As many of our readers are doubtless aware, from a perusal of the Parliamentary intelligence of the past few weeks, the King and Queen's College of Physicians has made application to the Crown for a supplemental charter. The College has had two objects in view—first to obtain the right of voting by ballot, which it was decided not to possess at a visitation held some four years since; and, secondly, to acquire the power of constituting Members, a class intermediate between the Licentiates and the Fellows.

On May 26 last a memorial from the President and Fellows, praying her Majesty the Queen to grant them a supplemental charter, was transmitted to his Grace the Lord Lieutenant. In reply to that memorial, his Grace desired to be informed as to whether, in the vote by ballot, it was intended that the majority should prevail; and further, as to the qualifications, position, duties, and privileges of the proposed new class of Members of the College.

To the first of these inquiries the College has replied, that the intention was that in all elections of Fellows and officers of the College the majority of the votes given by ballot should prevail. With regard to the constitution of the class to be termed "Members," the College has replied that the *qualifications* of a candidate for the Membership shall be analogous to those required of candidates for the Membership of the Colleges of Physicians in London and Edinburgh, and that the *privileges* of a Member consist in a higher professional status than that of a Licentiate, and in the right, by means thereof, to compete for and to hold professional appointments in England and Scotland, from which Licentiates of Colleges are excluded, but which are open to Members of the Colleges of London and Edinburgh. Such appointments are the physicianship to county hospitals.

The College has also directed counsel to prepare a draft of a charter containing the clauses and provisions sought for. This will, in due time, be furnished to the Lord Lieutenant in accordance with his Grace's request, in order to be submitted for consideration to the law officers of the Crown. We understand that, should the constitution of members be granted to the College, the claims of the existing licentiates will be most favourably considered, the probability being that they will be declared Members on conditions somewhat similar to those imposed by the Royal College of Physicians, London, on Licentiates admitted before February 16, 1859.

Certainly, the disqualification of its Licentiates to hold the important post of physician to a county hospital is sufficient warrant for the effort now being made by the King and Queen's College of Physicians to secure the constitution of Members—an effort which will, no doubt, be appreciated by the Licentiates at large, and backed up by their moral and active support.

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### THE CHAIR OF THE INSTITUTES OF MEDICINE IN EDINBURGH.

From the resignation of Professor Hughes Bennett, caused, we regret to say, by continued ill-health, the Chair of Institutes of Medicine in the University of Edinburgh falls vacant. Fortunately, we have not yet before us the task of summing up the deeds of a lifetime, but in the case of Dr. Bennett we can look back on a far from inglorious past. In his time he has done much for pure science and much for medicine, not less in the actual discoveries he has made, than by the spirit in which he taught in the Edinburgh Infirmary, insisting ever in giving that accuracy to scientific medicine which is its crowning glory. We have not invariably agreed with Professor Bennett, but on this very account we would also be the last to withhold him that meed of praise which is justly his due.

The candidates for the vacant chair, which is really the Chair of Physiology, are in the meantime Dr. M'Kendrick, who has for some time been Dr. Bennett's deputy; Dr. Pettigrew, well known for his researches on the heart and bodily mechanics generally, at present Lecturer on Physiology in Edinburgh; and Dr. Cleland, Professor of Anatomy and Physiology in Queen's College, Galway. Dr. Rutherford, formerly Professor Bennett's assistant, and now of King's College, London, has been spoken of as a possible candidate; but we question whether, with the future opening for him here in London, he will care to quit his present post.

As regards certain of the candidates elsewhere spoken of in terms which may seem somewhat harsh, we have no desire to disparage them personally. They are victims of a system which we look upon with extreme distaste. Our only wish is that they should, if possible, shake themselves clear of it, for it is utterly unbecoming one seeking even a beadle's place, far less that of a professor in the University of Edinburgh.

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### THE VACANT CHAIR AT KING'S COLLEGE.

By the resignation of Dr. Garrod, King's College has sustained a double loss—the loss of an eminent clinical teacher and an admirable Professor of Materia Medica and Therapeutics. In point of fact, Dr. Garrod's post will not be easy to fill up. There are several excellent men in the field, but it must be conceded by the best of them that they lack that experience which was not one of Dr. Garrod's least excellences. The candidates for the chair are, we hear, three—Dr. Burney Yeo, Assistant-Physician to the Hospital, and formerly tutor in the College, whose good services and position give him a decided claim for the post; Dr. Baxter, the present Medical Tutor, who has also been chiefly engaged in bringing out the edition of Dr. Garrod's book which has just appeared, is, we understand, another and a worthy candidate. The only man not belonging to the College who seeks election is Dr. Milner Fothergill,

undoubtedly a man of great ability, who has paid much attention to drugs and their action. Out of such a trio it would be hard if the authorities did not make a good selection.

As regards the post of Physician, we are not yet in a position to say what steps the authorities will take. Meanwhile, the beds are in the charge of Drs. Duffin and Yeo. What steps will be taken to fill up the vacancy remain to be seen. At all events, we are in a position to say that the arrangements contemplated by a contemporary are premature.

Professor Rymer Jones has also resigned the Chair of Comparative Anatomy, and for this post Mr. Garrod, the son of the well-known physician above mentioned, is a candidate. Mr. Garrod is a distinguished Cambridge graduate, and has proved himself at Charing-cross Hospital an able and popular lecturer on the subject he now desires to teach in King's College.

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### HEALTH OF BIRKENHEAD.

Mr. Francis Vacher, Medical Officer of Health for Birkenhead and Claughton-cum-Grange, in his annual report for the year 1873, states that 964 deaths were recorded in the district of Birkenhead and Claughton-cum-Grange. An analysis of the year's mortality as regards the causes of the 964 deaths shows that 177, or 18·36 per cent. of the whole number, were ascribed to zymotic diseases; 165, or 17·11 per cent., to constitutional diseases; 425, or 44·08 per cent., to local diseases; 131, or 13·58 per cent., to developmental diseases; 53, or 5·49 per cent., to violence; and 13, or 1·34 per cent., to causes not specified. The ordinary sanitary operations superintended by the department had received constant attention. Mr. Vacher makes the following remarks on the conditions of life of the class who most influence vital statistics. He says:—

"A stranger reading of the many advantages Birkenhead enjoys as to site, surroundings, and general plan, its extensive system of sewers, wide and straight streets, modern dwellings, plentiful supply of pure water, handsome market, commodious public slaughter-houses, etc., might well suppose it to be the healthiest town in the kingdom. Owing, however, to most of the cottage property built prior to the passing of the Sanitary Bye-laws, in 1862, having been the work of jerry builders, and many houses originally constructed for well-to-do tenants (as those in Ivy-street and Church-street) having been since sublet room by room, a large proportion of the dwellings available for the working classes are far from being healthy homes.

"With reference to improperly sublet houses, he submits the humbler classes would be greatly benefited if the sanitary authority had power to veto any departure from the original design of occupancy of houses in the district—at least, till such preliminary alterations as might be considered necessary should have been effected to the satisfaction of the authority."

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### POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

Dr. Lush, M.P., who has presented numerous petitions from Poor-law medical officers, praying that no additional unpaid labour should be imposed on them either by the order of the Local Government Board or by boards of guardians, will before the close of the session move for the circular letter forwarded by the Local Government Board on March 23, 1874 (signed "J. Lambert"), and call the attention of the House to the injustice perpetrated by the Department. Dr. Brady, to whom the Service is indebted for successfully carrying the Poor-law Medical Officers' Superannuation Act, had contemplated introducing a Bill rendering it compulsory on boards of guardians under certain restrictions to grant superannuations, but, in consequence of the great arrears of public business and other causes, considers it would be injudicious to press a measure this session, and has therefore decided to adjourn the subject until next year, when he hopes to be enabled, with better prospects of success, to deal with this question. He therefore has not presented any of the numerous petitions which have been forwarded to him, as he is holding them in reserve for next session.

### THE PARLIAMENTARY REPRESENTATION OF THE UNIVERSITY OF DUBLIN.

It is tolerably well understood in Parliamentary and legal circles that Dr. Ball, the Attorney-General for Ireland, will be made Lord Chancellor of Ireland at the close of the present session. His elevation to this distinguished position will cause a vacancy in the representation of Dublin University, as senior member for which constituency he at present sits in the House of Commons. Amongst the many candidates for the coveted honour thus vacanted, is one in whom the medical profession must feel a special interest. We refer to Dr. Anthony Traill, Fellow of Trinity College, and a Doctor of Medicine of the University. Those who have the interests of their *Alma Mater* at heart would do well to support the candidature of one who is so fully acquainted with the working and the needs of the University. But the medical electors should, above all things, endeavour to secure the return of a professional brother, who, untrammelled by the exigencies of private practice, acquainted with the great medical questions of the day, and possessed of much ability and oratorical powers of no mean order, would be an able addition to the small band of members of the profession in the House of Commons. There are about 400 medical electors on the roll of the constituency at present, but many are as yet unregistered. It may be well to remind medical graduates of Dublin that no time is to be lost in registering, as it is necessary that the name of an elector should be two months on the register to entitle him to vote, and the election will most probably take place in September next. We understand that Dr. Traill's committee, which includes the names of most of the professors of the School of Physic in Ireland, will issue a circular in a short time.

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### THE REPORTED OUTBREAK OF PLAGUE AT BAGDAD.

We last week called attention to a rumoured outbreak of the plague in Bagdad; this has naturally caused much anxiety in the East, and the *Levant Herald* gives some further particulars on the subject, which it states may be relied on as strictly accurate. The outbreak in the vicinity of Bagdad has every appearance of plague, modified more or less by the influence of malaria. It first broke out a little before Kourban Bairam, at the close of last January, among the tribes inhabiting Dagarah, in the district of Hillé near Bagdad. It does not appear, however, to have spread beyond the locality where it originated, but the mortality caused by it is estimated at two-thirds of those attacked. A commission composed of four medical men was sent by the Ottoman Government last month, to inquire and report on this malady, and they declared it to be true plague. It exists at Hillé, Divaniyeh, Dagarah, and Afidj. Quarantine restrictions have been established all round the affected districts, and the last telegrams from Bagdad, up to the date of the 14th ultimo, announce that it was sensibly decreasing. It is a significant fact that this malady has reappeared in the very same places in which it manifested itself in Africa in 1858, in Mesopotamia in 1867, and in Kurdistan in 1871; and that all these outbreaks appear to have been preceded by severe privations among the inhabitants, famine caused by drought or by inundations.

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### THE ADULTERATION OF FOOD.

The report of the Select Committee of the House of Commons on the Adulteration of Food has just been made public; they conclude a lengthened statement as follows:—

"Your Committee believe it will afford some consolation to the public to know that in the matter of adulteration they are cheated rather than poisoned. Witnesses of the highest standing concur in their opinion, that in the numerous articles of food and drink which they have analysed, they have found scarcely anything absolutely injurious to health, and that if deleterious

substances are occasionally employed for the purposes of adulteration they are used in such minute quantities as to be comparatively harmless. Your Committee believe that it is the intention of Parliament that consumers should be protected from frauds, and that they should be enabled to procure the articles they ask for and require; but they do not consider that Parliament desires needlessly to hamper or fetter trade, still less to interfere between the buyer and seller with a view of regulating prices, or attempting to assist the consumer in ascertaining the real money value of any marketable commodity."

### THE RECENT COLLEGIATE ELECTION.

The following analysis of the voting at the recent election into the Council of the Royal College of Surgeons will, no doubt, be read with some interest by the readers of the *Medical Times and Gazette*:—

| | | Voting papers. |
|---|---|---|
| For Messrs. | Hilton, Marshall, and Baker there were | 37 |
| ,, | Hilton, Marshall, and Smith ,, | 22 |
| ,, | Marshall, Smith, and Baker ,, | 18 |
| ,, | Hilton, Marshall, and Hussey ,, | 83 |
| ,, | Marshall, Hussey, and Smith ,, | 13 |
| ,, | Marshall, Hussey, and Baker ,, | 6 |
| ,, | Hussey, Smith, and Baker ,, | 5 |
| ,, | Hilton, Smith, and Baker ,, | 3 |
| ,, | Hilton, Hussey, and Smith ,, | 2 |
| ,, | Hilton, Hussey, and Baker ,, | 2 |
| ,, | Hilton and Marshall ,, | 8 |
| ,, | Marshall and Smith ,, | 8 |
| ,, | Marshall and Baker ,, | 8 |
| ,, | Hussey and Baker ,, | 6 |
| ,, | Marshall and Hussey ,, | 5 |
| ,, | Hilton and Baker ,, | 4 |
| ,, | Hilton and Hussey ,, | 2 |
| ,, | Hilton and Smith ,, | 2 |
| ,, | Smith and Baker ,, | 1 |

(233 papers counted; three bad votes.)

### BRITISH MEDICAL ASSOCIATION.

At a recent meeting of the Committee of Council of the British Medical Association, held in London, the following resolution was passed:—

"That it be recommended to the annual meeting at Norwich to grant a sum of £200 for distribution in grants in aid of researches in anatomy and physiology, the action of remedies, clinical medicine or clinical surgery. That a grant-recommendation sub-committee be appointed by the annual meeting to advise the Committee of Council as to the proper distribution of the proposed grants—one-half at least of such sub-Committee to consist of members of the Committee of Council, with power to add to their numbers within the assigned limits. That repeated notice be given in the *British Medical Journal*. That in the expectation that this recommendation will be adopted by the annual meeting at Norwich, gentlemen desirous of pursuing investigations of the nature specified be invited to send in to the President of the Committee of Council applications for grants in aid of these researches; such application to be made not later than the time of the annual meeting, and to specify the nature of the researches they propose to make."

### THE CONJOINT EXAMINING SCHEME FOR IRELAND.

We understand that the King and Queen's College of Physicians has adopted the Report of the College in Committee on the Report of the Committee of Reference of the Conjoint Examining Scheme for Ireland, and that copies of the report have been sent to the other co-operating bodies—namely, the University of Dublin, the Royal College of Surgeons (Ireland), and the Apothecaries' Hall, and also to the General Medical Council. Amongst the alterations in the curriculum made by the College of Physicians, the most noteworthy are the striking out of a second course of Principles and Practice of Surgery, and the insertion of a course of Practical Medicine, to consist of not less than twenty meetings of the class, and of a three months' course of Public Health.

### THE LIFFEY NUISANCE.

Thanks to the public spirit and munificence of one of her merchant princes, Dublin is likely soon to be rid of the intolerable nuisance of a sewage-reeking river. At a meeting of the Corporation, held on Monday, the 6th inst., a communication was read from Mr. Robert Walker, C.E., on the part of Sir John Arnott, relative to a plan for the abatement of the Liffey nuisance. Sir John Arnott offers to carry out this plan at his own expense, and to have the necessary works completed within four months. This action by a private individual only should, if possible, shame the public body which for many years has talked and wrangled, but utterly failed to do its duty, as sanitary authority, to the citizens of the unhappy Irish metropolis.

### AMERICAN MODESTY.

The following richly modest remarks we extract from the seventh report of the medical staff of St. John's Hospital, Lowell, Massachusetts:—

"There is this remarkable fact, that scarcely a patient enters the Hospital but what improves day by day, seldom if ever getting any relapse; whereas in private practice patients very frequently get worse by taking cold, by improper diet, by over-dosing, or by some other neglect or imprudence. The Hospital affords a grand opportunity to test the merits of good nursing and the application of sanitary laws. The effect of these agencies may be seen immediately, and in many cases seemingly do the *cure* with but little *medicine*."

### VACCINATION AT LINCOLN.

To the credit of the majority of the Board of Guardians of Lincoln be it said, that on a motion being made at their last fortnightly meeting, that the resolution compelling vaccination be rescinded, they rejected the proposal by twenty-seven to thirteen votes. The Hon. A. L. Melville said he considered that vaccination was one of the greatest discoveries that had ever been made. Little did his parents think when he was vaccinated that if he lived to the year 1874 he would find so many guardians of the poor questioning its soundness, and setting their faces against it.

### HEALTH OF LONDON.

There were registered in London last week 1335 deaths, which was 77 below the average. The death-rate was 20 per 1000 in the West, 21 in the North, 25 in the Central, 21 in the East, and 19 in the South groups of districts.

### PARLIAMENTARY.—SCHOOL LIFE AND SHORT SIGHT—SMALL-POX AT GLOUCESTER—VACCINATION IN IRELAND—APOTHECARIES ACT AMENDMENT BILL—SLAUGHTER-HOUSES—HEALTH OF WOMEN IN FACTORIES—PUBLIC HEALTH (IRELAND)—CONTAGIOUS DISEASES (ANIMALS).

In the House of Lords, on Thursday, July 2,

Lord Monteagle drew attention to the effect of school life in developing short sight, and asked whether anything could be done to avert the evil. He said that the prevalence of short sight in Germany, where education had been compulsory for a long time, had recently attracted serious attention, and it was found on investigation that the percentages of children afflicted with short sight ranged between one and two in rural and primary schools, between three and nine in urban schools, between nine and forty-four in normal schools, between twelve and fifty-five in secondary schools, and equally high among the small numbers who attend the upper schools and universities. The causes were found to be the unnatural positions which children were induced to assume from the inconvenient forms of desks and seats, and the defective lighting of rooms; and steps were now being taken to remedy and avert the evil in Germany, Sweden, Denmark, Switzerland, and America. He apprehended a similar evil in this country if we did not pay proper attention to the lighting of schoolrooms, and to their furniture.

The Duke of Richmond, in reply, stated that the Education Department would gladly adopt any form of desk, and also any

improved method of lighting the Board Schools, if it was found that the proposals of Lord Monteagle were advantageous.

In the House of Commons, on Monday, July 6,

Mr. Sclater-Booth, replying to Colonel Kingscote's observations with reference to an outbreak of small-pox at Gloucester and the spread of infection to neighbouring villages, stated that in the month of January last the Local Government Board were informed by their inspector that there were nine small-pox cases in the infectious wards of the workhouse, when steps were immediately taken to advise the Guardians as to their duty, and the Town Council were also called upon to provide hospital accommodation. This they professed themselves willing to do in concert with neighbouring sanitary authorities, whose jurisdiction comprises the suburbs of Gloucester, but difficulties seem to have occurred which, it is hoped, will be removed by a private Bill now passing through Parliament. At the close of the correspondence, which was in February last, the Local Government Board were informed that the disease was on the decrease.

Sir M. H. Beach, replying to Mr. Meldon's complaints with reference to the deficient supply of vaccine lymph to Poor-law districts in Ireland, said that in England a gratuitou supply of vaccine lymph is provided by the State for those who choose to avail themselves of it, whereas in Ireland subscriptions of one guinea a year are paid by the various unions to the Dublin Cowpock Institution for whatever supply of lymph they may require. This institution is also supported by other subscriptions, by money received for the sale of lymph, and by a Government grant of £400 a year. As a matter of fact, I am informed that the bulk of the public vaccinators in Ireland prefer storing and using their own lymph to any supply from London or Dublin, whether gratuitous or paid for. A gratuitous supply of lymph might be provided in Ireland by a Government grant of about double the present amount, if entrusted to the Local Government Board instead of the Dublin Cowpox Institution.

In the House of Lords, on Tuesday, July 7, the Apothecaries Act Amendment Bill was read a third time, and passed.

In the House of Commons, the Slaughter-houses Bill passed through Committee.

In the House of Lords, on Thursday, July 9, the Health of Women in Factories Bill was to be read a second time.

In the House of Commons, the Committee was to sit upon the Public Health Bill for Ireland; the Slaughterhouses Bill as amended was to be considered; and Mr. Cogan was to move an address for returns relative to Contagious Diseases among Cattle.

## INTERNATIONAL EXHIBITION.

### The Greek Wines.

In its way there is no more perfect collection of wines, small though it be, than Mr. Denman's selection of Greek wines, and certainly none is better deserving of public attention. These wines have the rare merit of combining fairly good alcoholic strength with distinct and specific characters in their bouquet and flavour, which render them, when once used, favourites in all time to come. Moreover, they, or at least some of them, have over and above this advantage: if opened they do not so speedily spoil as do the lighter wines of France, but will keep for a considerable length of time. This is a great point to many. A man may be desirous of drinking half a bottle of wine with his dinner, but may care neither to drink nor pay for a whole one. If he were *en pension* in a foreign hotel, or habitually dined in a café in Soho, he might wrap his napkin round the neck of the bottle which contains his daily allowance of *vin ordinaire*, but when he fell back on these remains in the evening, he would surely find the wine flat, vapid, or even worse; but with a bottle of St. Elie he may safely drink half at dinner and put the rest aside, sure to find it fairly good, even next day or the day after. To bachelors this is no small recommendation; but as regards the wines themselves:—

To begin, we can take no better sample than the St. Elie, already referred to. This is a white wine, but of two tints, one pale the other gold, the former being the more delicate, the latter the fuller bodied of the two. Its characters are not very easily described, as in many respects it is a peculiar wine; but this can be said—that it tends to develope into something like fine old sherry, to which its bouquet and flavour are allied. St. Elie is not a very cheap wine—it costs 36s. per dozen,—but it is a wine the physician will do well to bear in mind, for it may help him well in dealing with a difficult case where there is much exhaustion and want of appetite.

A thinner wine, probably of less alcoholic strength, but of a fine delicate flavour, is the White Keffesia, which is sold at 24s., and is very well worth the money. This wine is intermediate in character between the St. Elie and some of the stronger Hungarian white wines, and the light white wines of France, commonly grouped in this country under the title of Chablis. It should be used in like fashion as a beverage, especially along with food.

By far the best of the red Greek wines, to our thinking, is Noussa at 30s., which in many respects reminds us of a good Burgundy; it is a full-bodied wine, depositing an ample sediment, but when carefully decanted is worthy of all praise. Red Keffesia is also a very admirable wine, costing the same money as the white wine of the same name.

Among the samples exhibited by Mr. Denman is one well suited for an after-dinner wine, especially for ladies. It is called Ambrosia, and costs 30s. It is a sweet, full-bodied wine, and, for a sweet wine of good quality, is remarkably cheap. It is not, however, to be compared with the Vinsanto of the same merchant, which is one of the finest raisin wines we have tasted, retaining the odour and characters of the fully ripe and half-dried grapes; but then this costs 48s. Other Greek wines there are in the Exhibition, but Mr. Denman's is by far the best collection, both as regards number and excellence of specimens.

## ROYAL COLLEGE OF SURGEONS.

After the annual election of Fellows into the Council of the College, a notice of which appeared last week in this journal, the Fellows dined together at the "Albion," under the most efficient chairmanship of Professor Erasmus Wilson, F.R.S. After the usual loyal toasts and happy allusions to the soldier-prince who had recently tightened the closing coil of what he trusted would for ever be a true lovers' knot with Ireland, he gave "The Medical Departments of the Public Services." He said:—"For these Services I claim the privilege of observing that we know the stuff of which our men are made, and we have therefore no fear that they will fail to distinguish themselves, as they have ever done, in maintaining and upholding the traditions of our country—the army in the field, the navy on the ocean, and the auxiliary forces around our homes. The rose, the shamrock, and the thistle, shoulder to shoulder, are a bulwark of adamant that is, and for ever will be, invincible. But what I now say for our brothers-in-arms I may say also for the medical service, upon which not only our armed hosts, but likewise the country at large, relies for an enlightened administration of the philosophy of sanitary science and of the healing art. At the recent banquet of the Caledonian Asylum, Colonel Festing, one of our heroes of the Gold Coast, observed, with respect to our late victorious invasion of the strongholds of the Ashantee—the *veni, vidi, vici* of a modern Cæsar—that the peculiar characteristics of that campaign were good engineering and good doctoring. If he had not been a soldier himself, he might likewise have added—and a brave little army most gallantly led. And he further remarked, that on praising a wounded soldier of the 42nd for his feats in arms, the man made an answer which we might all be proud to have engraven on our hearts:—'Wall, sir, we jist did our best!' I feel sure that this is a watchword which the Medical Department of the Army, the Navy, and the Auxiliary Forces will readily and cheerfully adopt; and I call upon you to drink to that toast, coupling with it the name, etc."

This toast was eloquently responded to by Dr. Mouat, of the Indian Army, and Sir J. Cordy Burrows, late Mayor of Brighton, for the auxiliary forces.

For the "Medical Corporations," proposed in feeling terms by Professor John Wood, F.R.S., of King's College, Sir

George Burrows, President of the Royal College of Physicians, responded in his usual happy tone, followed in an eloquent speech by Mr. F. Le Gros Clark, Senior Vice-President of the Royal College of Surgeons.

"The Provincial Schools" could not have fallen into better hands than those of Mr. Critchett, or been responded to in a more grateful and eloquent manner than by Mr. Edward Lund, of Manchester, who said :—"In the name of the teachers in our provincial schools, as well as on my own behalf, I beg to thank you for the very kind and flattering way in which this toast has been proposed, and for the enthusiastic manner in which you have received it. It is, at all times, a pleasure to us to join in these festive banquets, and to see amongst us those whom we have so long respected, either as former teachers or as present workers in a common cause. The year which has passed has been an eventful one to all concerned in medical teaching, but especially in the anatomical department of the College examinations; and I fear, when the pass and pluck list is published, we shall find that in no former period has there been so large a proportion of rejections, both at the primary and the final examinations. This has caused great anxiety to us all, and although we know that, for a time at least, our reputation may be dimmed, yet it is to us a source of comfort to feel that, where we have failed, we have done so in good company, for I believe I am correct in saying some of the metropolitan schools have felt the pinch as much as we. These results, however, will not dishearten us; they will stimulate us to renewed exertion. We will try to attain to that higher standard of knowledge which the College seeks for in her candidates ; we will endeavour not merely to make our students pass, but give that practical knowledge of a profession, which in its social relations is second to none, when it has for its object the preservation of health and life."

"The Metropolitan Schools" was proposed by Dr. Humphry, F.R.S., and responded to by Mr. Jonathan Hutchinson, in short but happy speeches. After which, amidst the greatest applause,

Sir James Paget, Bart., proposed "The Health of the Chairman," and alluded to his many and varied acts of general as well as medical philanthropy.

It was some time before Mr. Wilson could obtain a hearing, so enthusiastically was he received. He said :—"Gentlemen,—I thank you very heartily for the kind reception you have been pleased to give me in my capacity of chairman of your annual banquet. The honour of presiding over you at these gatherings is one which is conferred by seniority alone, and to that honour I can claim no other title. I am, therefore, the more obliged to you for supporting me as you have done on the present occasion. Our banquet, as you know, is a purely social institution, and possesses no political significance. It is the one festive occasion of the year which brings together from every part of the kingdom the electoral body of our College in social and friendly communion, and enables us to shake hands with many old friends and companions of our early days. And I take this opportunity of observing that it likewise gives us the opportunity of shaking by the hand those friends who honour us with their presence as visitors. We have the happiness of welcoming amongst us in that capacity this evening, the President of the College of Physicians, our Senior Vice-President, the President of the Pharmaceutical Society (Mr. T. H. Hill), and in addition to these gentlemen there is one who holds a peculiar and interesting position in relation to our profession—a doctor, not of medicine, but of divinity, but who, nevertheless, deserves to be ranked amongst us as one of ourselves, as contributing very largely to our honour as a profession, and to the gratification of our nearest and dearest sympathies as men, by representing the education of our orphan sons. I therefore invite you to give a hearty greeting to 'Our Visitors,' and I couple with that toast the name of the amiable and accomplished Head-Master of Epsom College, Dr. West."

Dr. West acknowledged the toast in eloquent and graceful terms.

"The Stewards," proposed by Dr. Kelburn King, was responded to by Mr. Benjamin Lowne of the Middlesex Hospital.

"The Hon. Secretary (Mr. T. Carr Jackson)," who now retires, was proposed by the Chairman in the following terms :—"Gentlemen, I have now the pleasure of proposing to you 'The Health of the Hon. Secretary' ; and this would be a simple duty if I had merely to refer to the labours of the office, which, indeed, are very considerable. But it so happens that, on the present occasion, we part with one secretary and adopt another. It seems, therefore, desirable that I should say a few words with regard to the nature of our constitution. Our annual banquet is solely under the control and government of the Fellows themselves, and any and every Fellow is entitled to become a steward by his own nomination and assent. The stewards are the executive body; they elect the secretary, and with the help of the secretary they settle and complete the necessary arrangements. At our last annual meeting, the secretary (Mr. Carr Jackson), who had occupied that post for several years, resigned his appointment, but was induced, at the request of the stewards, and with their consent that he should avail himself of the assistance of Mr. Allingham, to continue in office for another year. On the present occasion, however, it became necessary to elect his successor, and the votes of all present were unanimous in favour of Mr. Allingham. The toast resolves itself, therefore, into—thanks to Mr. Carr Jackson for his past services, which I can assure him we all duly estimate; and thanks to Mr. Allingham for his ready and able assistance during the past year; and at the same time we may express a hope that he will honourably emulate his predecessor, for although the duty is essentially a labour of love, it is nevertheless of no inconsiderable magnitude. Our toast, therefore, is—"Health to the Honorary Secretary, past and present—Mr. Carr Jackson and Mr. Allingham."

Mr. Jackson, and his excellent successor, Mr. Allingham, returned thanks.

Dr. West, the Head Master of the Epsom Medical College, said grace.

Amongst the provincial Fellows we noticed Dr. Wiblin, of Southampton ; Dr. Harris, of Redruth, Cornwall ; Mr. Colgate, of Eastbourne ; Messrs. Southam and Lund, of Manchester ; Messrs. Baker, Evans, Manby, and Solomon, of Birmingham ; Sir J. C. Burrows, of Brighton ; Mr. T. Green, of Bristol ; Mr. Bartrum, of Bath ; Mr. Chaffers, of Keighley, Yorks ; Mr. J. Penhall, of St. Leonard's ; Mr. Stevens, of Biggleswade ; Mr. Wood, of Shrewsbury, etc.

## DUBLIN SANITARY ASSOCIATION.

The annual meeting of this voluntary society, which has now entered upon the third year of its existence, was held on Thursday, the 2nd inst., in the Leinster Lecture Hall, Molesworth-street, Dublin. The meeting, which was influential and representative, included many ladies. The chair was occupied by Jonathan Pim, Esq., President of the Association. From the report, which was read by Dr. Todhunter, one of the honorary secretaries, it appeared that there were now 250 members, including only ten ladies, enrolled in the Association. The income for the year ending May 31, 1874, amounted to £150 17s., and the expenditure had been £142 2s. 5d. A series of suggestions with regard to the best means of checking the spread of scarlatina had been drawn up, printed, and extensively circulated. A course of popular lectures on sanitary subjects had been commenced. Reports of nuisances in 359 cases, comprising about 519 distinct nuisances, had been forwarded to the Public Health Committee of the Corporation. These nuisances were classed under the following heads :—1. Overcrowded houses, 10 ; 2. Houses unfit for habitation, 18 ; 3. Houses in a state injurious to health, 47 (in nearly all of these, cases of disease have actually occurred) ; 4. Insufficient or defective ashpit and privy accommodation, likely to cause injury to health, 147 ; 5. Insufficient water-supply, 6 ; 6. Defective sewerage, 74 ; 7. Filthy yards and archways, 118 ; 8. Manure heaps and accumulations of filth, 29 ; 9. Unscavenged streets and lanes, 50 ; 10. Animals badly kept, 20 ; total, 519. Arrangements had been made for securing the inspection of every district of the city in rotation, or as occasion might arise, by sub-committees appointed by the Executive Committee. Allusion was made to the threatened approach of cholera last summer, to a deputation which waited upon the Local Government Board on this subject, to the construction of a port hospital-ship, and to the severe epidemic of scarlatina which has prevailed in Dublin since last October, causing an average of 12·6 deaths weekly in thirty-six weeks. The prohibitory rates arranged by the Public Health Committee for conveyance of patients to hospital, and for ashpit cleaning, were commented on ; and, lastly, the action taken by the Executive Committee on the Public Health (Ireland) Bill was described. Having referred to the assistance given to the Association by

the press, the report concluded as follows:—"In conclusion, your Committee will only add that, while the experience of another year has shown more clearly than before the enormous magnitude of the work which the Association has undertaken, and of the difficulties which lie in the way of its accomplishment, it has also more fully convinced them that, with adequate support and encouragement, much permanent good may be achieved, and for that encouragement and support they look confidently to the members of the Association and the public." The President of the King and Queen's College of Physicians, in moving the adoption of the report, observed that the Association, although a voluntary body, without legal powers or public funds, was from its scientific character an efficient aid to the Public Health Committee. Dublin was much more unhealthy than London, Edinburgh, and other large cities, although it possessed wide streets, easy access to the country, pure air, and plenty of good water, and it ought to have a salubrious stream passing through it. Besides defective sanitation, the vice of intemperance had much to say to the unhealthiness of the city. Mr. Robert O'B. Furlong, barrister-at-law, seconded the motion, and pointed out that the cleansing of the ashpits of the tenement houses in Dublin alone at the rates laid down by the authorities would bring in £32,400 per annum! He referred at length to the efforts now being made in London by Miss Octavia Hill and other sanitarians to improve the dwellings of the humbler classes. The resolution was carried unanimously. Mr. Alexander Parker, one of the leading merchants of the city, proposed, and Mr. Thomas Pim, jun., also a merchant, seconded a motion—"That the following do constitute the officers and committee for the year 1874-75:—*President:* Jonathan Pim. *Vice-Presidents:* Sir Edward R. Borough, Bart., J.P., D.L.; Lord James W. Butler; Fleetwood Churchill, M.D., chairman of Executive Committee; Sir Arthur E. Guinness, Bart., J.P., M.P.; Ion Trant Hamilton, M.P., D.L.; the Right Hon. Viscount Monck, G.C.M.G.; George H. Porter, M.D., F.R.C.S.I., Surgeon in Ordinary to the Queen in Ireland; the President of the King and Queen's College of Physicians, Ireland; the President of the Royal College of Surgeons, Ireland; William Stokes, M.D., F.R.S., etc., Physician in Ordinary to the Queen in Ireland, and Regius Professor of Physic in the University of Dublin; Lord Talbot de Malahide; Colonel the Right Hon. T. E. Taylor, M.P. *Executive Committee:* E. F. Beatty; Rev. F. F. Carmichael, M.A.; C. P. Cotton, C.E.; Thomas Drew, R.H.A.; J. M. Finny, M.D.; Thomas W. Grimshaw, M.D.; Rev. Alfred Harvey, M.A.; Thomas Hayden, F.K.Q.C.P.I.; Rev. Morgan W. Jellett, LL.D.; Joseph E. Kenny, M.D.; J. J. Digges La Touche; John M'Evoy; J. W. Moore, M.D.; D. Toler T. Maunsell, M.B.; Geo. R. Price; Thos. Purcell, L.K.Q.C.P.I.; Robert Sexton; Abraham Shackleton; Albert O. Speedy, L.R.C.S.I.; H. H. Stewart, M.D., F.R.C.S.I.; Rev. Robert Walsh, M.A.; Rev. James Walshe, B.D.; W. Dudley White, L.R.C.S.I.; Wm. White, Sen. City Coroner. *Hon. Treasurer:* Wilfred Haughton, 28, City Quay. *Hon. Secretaries:* Robert O'B. Furlong; Chas. F. Moore, M.D., F.R.C.S.I.; John Todhunter, M.D.; Frederic W. Pim. *Assistant-Secretary:* Edward Spencer. *Bankers:* Messrs. Boyle, Low, Murray, and Co., 35, College-green." The resolution was put and carried *nem. con.* Dr. Grimshaw moved, and Mr. W. Haughton seconded, a vote of thanks to Dr. Churchill, chairman of the Executive Committee. This was carried by acclamation. Mr. Parker having taken the second chair, a vote of thanks to Mr. Jonathan Pim was proposed by Dr. Churchill, seconded by Dr. Evory Kennedy, and adopted by acclamation. The proceedings then terminated.

## FROM ABROAD.

### Obstetrical Anæsthesia.

Professor Gubler, presenting a memoir to the Académie de Médecine upon this subject from Dr. Campbell, the well-known obstetrician of Paris, drew an observation from Prof. Depaul, which we may notice. The purport of Dr. Campbell's memoir was to give an account of his experience in the administration of chloroform. He has, it seems, employed what he calls "obstetrical anæsthesia" in 942 cases without having to regret the slightest accident; and he believes that the cause of such immunity is to be found in the efforts rendered necessary for the expulsion of the infant and the cerebral hyperæmia which necessarily accompanies these. Prof. Depaul observed that surgeons understand by the term anæsthesia the absolute loss of movement, sensibility, and consciousness, which is determined by the administration of a more or less considerable quantity of chloroform or ether. But in none of Dr. Campbell's cases was this kind of anæsthesia produced. He contented himself by giving very small doses of chloroform, by means of which a certain amount of insensibility was produced; and it would be an error to suppose that these 942 women have been subjected to anæsthesia as generally understood with impunity. Accidents from the obstetrical administration of chloroform are not unknown, and M. Depaul is in possession of cases in which sudden death has been produced by it. He believes that great care is required in its administration, and that in cases of ordinary labour it can be very well dispensed with. Prof. Gubler, in reply, observed that in the immense majority of obstetrical cases there is no necessity to carry the anæsthesia to absolute unconsciousness, it often sufficing to determine a slight insensibility in a nervous or pusillanimous woman to facilitate the process of parturition or to obviate certain inconveniences. Dr. Campbell has sought to produce a variable amount of anæsthesia according to the case, and has almost always found that slight insensibility sufficient to which the name "obstetrical anæsthesia" has been given in order to specify it.

(The mere smallness of the dose will not explain the immunity observed in the administration of chloroform to lying-in women, as it is well known that in many cases of death from chloroform this has ensued upon the inhalation of very small quantities of chloroform. The immunity reported by Dr. Campbell has been met with in the practice of all obstetricians; and we would suggest to Prof. Depaul that he would do a good service by publishing the details of the fatal cases which he says he is in possession of.)

### Professor Bert's Report on the New Faculties of Medicine.

Some time since the National Assembly appointed a Select Committee to consider the petitions addressed from Lyons, Bordeaux, Toulouse, Nantes, Lille, and Marseilles, praying that faculties of medicine might be instituted in these cities. M. Paul Bert was appointed the reporter of the Committee, and has drawn up an elaborate report on the subject, which is some two or three hundred pages in length, and lavishly furnished with shaded maps (exhibiting the proportion of practitioners, students, etc., in the different departments) and copious statistical tables. Of so bulky a document we can only give a brief account, as also of some of the criticisms it has called forth.

In the first place, M. Bert commences by regretting that the Assembly has so limited the sphere of action of the Committee as to prevent its taking into consideration the faulty condition of the three faculties and twenty-two preparatory schools of medicine which now exist. These, according to his account, stand in need of radical reforms to save them from a continuance of the decay in their reputation which has set in. The Committee, however, confines itself to recommending that two new faculties should be created at Lyons and Bordeaux, upon the same plan as that of the existing faculties. This recommendation has been severely criticised by M. Latour in the *Union Médicale*, who maintains that there is no urgent need for the immediate creation of these faculties, and that the doing this should be postponed until the reorganisation of medical teaching, which cannot be long delayed, has been accomplished. Then will have to be determined the question of the acknowledgment of free teaching of medicine, independently of the faculties, which has many advocates. The accuracy of one of M. Bert's strongest reasons for the increase in the number of the faculties—viz., the diminution in the number of practitioners, to the great detriment of several departments—is also denied by M. Latour. M. Bert brings forward a strong statistical array in proof of the number of practitioners having diminished or remained stationary; but M. Latour declares that there is no accurate account of the numbers of the profession in France in existence, these having been quite arbitrarily stated at 20,000, 18,000, or 16,000. Even taking M. Bert's figures (15,419) as correct—that is, one for every 2341 inhabitants,—when it is considered how many of these are relieved by charity and purloined by quacks, the proportion seems amply sufficient. It is true that these are very unequally distributed, and that in some departments.

there is a real paucity of properly qualified men. But this is because they are unable in these localities to make a satisfactory living. M. Paul Bert's specific for replenishing these departments, by forming new centres for the supply of doctors, is illusory in the extreme, for whencesoever they derive their degrees, practitioners will not consent, for example, to live in Brittany, where they are exposed to the tolerated competition of priests, religious houses, and charlatans of all kinds. A protective law against medical parasites would probably be a more effectual remedy. Another illusion entertained by M. Bert is, that on the creation of new faculties a considerable portion of the 4000 or 5000 students who now overcrowd the Paris Faculty, and render effectual demonstrative teaching impossible, will be diverted to these establishments. That Paris will still continue to have, as it always has had, superior attractions for students, there can be little doubt. The teachings of experience favour this view; for of the eighteen faculties in existence during the *ancien régime*, two only (Paris and Montpellier) flourished, and that at a period when provincialism prevailed in great force, whereas at the present time the tendency is for Paris to absorb everything. Most persons are of opinion that to create a number of new faculties with power to grant degrees would be most mischievous, owing to an utter want of capable men to fill the professorships and to the deterioration of instruction likely to ensue. Many incline to the deprivation of the faculties of the power of licensing to practise, this being conferred on a body of State examiners.

In the meantime, M. Bert's proposition for the creation of the two new faculties has met with the approval of the Government and the Assembly, and the measure, if not impeded by the political *imbroglio*, will soon pass. All seem agreed that Lyons, at least, has pre-eminent claims in consequence of its great teaching capabilities.

### On the Employment of Trusses in Varicocele.

At a recent meeting of the Hufeland Society of Berlin, Dr. Ravoth read a paper (printed in the *Berlin. Klin. Woch.*, May 11), upon the plan of treating varicocele by means of hernial trusses, which he has pursued for several years with great success. Twenty-eight cases so treated form the basis of the present communication.

Varicocele, as is well known, almost always occurs on the left side, and in the great majority of cases dates from the period of puberty—most cases, in fact, being made known during the examination of youths as recruits. It is very rare for it to appear after the twentieth year, and it usually undergoes any considerable increase after this time only in consequence of some irritation of the sexual apparatus. How little the venous stasis produced by hernia and trusses has to do with the production of the affection may be judged by the fact that in nearly fifteen hundred left inguinal hernias, which have come under the author's notice, he has never once met with a case of varicocele. Indeed, as among so many cases there must have been some instances of co-existing varicocele, these have, in fact, been cured by the application of the truss employed for the hernia. The chief causal condition in the production of varicocele is irritation of the sexual apparatus; but whether this is to be explained by an augmented accession of blood, with relaxation of the cremaster and the dartos, inducing dilatation of the spermatic veins, or by an enfeebled state of the trophic nerves, further investigation must decide.

As a practical fact, it is to be observed that the application of the hernial bandage will ameliorate all cases of varicocele; and when these are recent or have become increased by accidental irritation it will cure them. During treatment the truss should be kept on permanently, except at night. During two or three hours daily, the compression of the pad is augmented by means of a supplementary spring. In two cases narrated the cure was effected in two and three months respectively. Under compression the varicocele immediately diminishes in size, and any pain that may be present disappears. The testis is also brought nearer the abdominal ring in consequence of the stimulation imparted to the cremaster.

Dr. Ravoth is of opinion that this mode of treatment may be advantageously applied for the relief of the varicose state of the lower extremity so frequently met with. Here, however, for prompt results, recent cases must be dealt with, as those which have lasted for years, and are attended with great thickening of the walls of the veins and degeneration of the surrounding connective tissue, can only be very slowly ameliorated. The pad should be applied to the femoral vein beneath Poupart's ligament, and especially where the saphena vein enters it. Dr. Ravoth is also in great hopes of soon showing that this mode of treatment may be employed very advantageously in treating cases of onanism and pollution. These cases, of course, require a great deal of individualising and adaptation of treatment owing to their complicated character.

## REVIEWS.

*Untersuchungen über die Vegetationsformen von Coccobacteria septica und den Antheil welchen sie an der Entstehung und Verbreitung der accidentellen Wundkrankheiten haben.* Von Dr. Theod. Billroth, Professor, etc. Berlin: Bei George Reimer. 1874.

*Investigations on the Botanical Forms of Coccobacteria Septica and the Share which they have in the Origin and Spread of Accidental Surgical Diseases.* By Dr. Theodore Billroth, Professor, etc. Berlin: George Reimer. 1874. With Plates, quarto, pp. 240.

This great work is the result of five years' labour of a man whose name is amongst the foremost in science. The subject which it deals with is one of unusual interest at the present time, from its intimate connexion with some of the most urgent questions of pathology and the treatment of wounds. What is the cause of infection? What part do organisms play in it? These and similar questions are anxiously asked by every surgeon, and yet none of the answers which have been returned is sufficiently satisfactory to settle the matter in any definite way. Quite the contrary is the case. The present state of science shows that we have taken only the first steps towards a clear understanding of this subject. The work which we have now before us shows very clearly that we have not yet advanced far enough to hope for any speedy and definite solution of the problems of the nature of infection and the share taken in it by organisms. We must not be discouraged, however, by this state of matters, nor stop in the course of our investigations even when a new work calls in question the previous results. On the contrary, we ought to be thankful that we can now see defects and errors in the arguments where before we were not able to detect them, and we must acknowledge that things are much more complicated than we at first thought them to be. Instead of frequently employing mere words, such as "fermentation" and "putrefaction," we should possess an exact knowledge of every single chemical process belonging to the disintegration of organic matter; and we should know exactly all the botanical relations of the plants to which we ascribe the power of disintegration, before we attempt to study their life and influence on organic matter. There is no doubt that many of the former investigators of these questions somewhat neglected the preliminary conditions of their solution, eager as they were to obtain an important practical result, and it is therefore easy to understand why their conclusions cannot always stand severe criticism. The superiority of Billroth's work seems to us to lie in demanding greater exactness and clearness. It does not bring forward many surprising discoveries, but opens new views in the direction which must be taken in future researches of a similar kind.

In the first and purely botanical part of the work, Billroth gives a new description and classification of the different forms of coccos and bacteria. He divides them into micrococcos, mesococcos, and megacoccos, according to the relative size of the single globular elements; further, he applies the name streptococcos to globules of coccos when united in rows; petalococcos when united into a thin membrane on the surface of fluids; and gliacoccos to a mass of globules united into a small lump by means of an intermediate mucous substance. We cannot follow the description further here, and will only add that the same distinction is drawn between the different kinds of bacteria, meaning by bacteria those elements which have the form of a small staff. According to Billroth's observations, bacteria very often take their origin from coccos, and micrococcos from bacteria; and the two forms are even sometimes to be found together on the same plant. He therefore unites them into one group, and considers them simply as connected forms of vegetation of the same plant, which he calls the "*Coccobacteria septica*." In the botanical system he classifies them under the algæ. He especially considers the so-called *Dauersporen* as the germs favouring the proliferation and propagation of bacteria, and has found that they resist much more powerfully the influence of the surrounding media

than do the vegetations of the plant themselves; and that such germs, after being kept dry for a long time, may set up a fresh vegetation if brought in contact with fluids. These *Dauersporen* originate by separation (*Abschnürung*) from the ends of the bacteria.

Contrary to the views of several botanists, Billroth does not assume any genetic relation between microbacteria and the fungi (*Schimmelpilze*), and he finds that oïdium (*Hefe*) never originates from microbacteria. These conclusions are the result of numerous experiments carefully arranged for the purpose.

Now, the different forms of vegetation of this single plant are to be found accompanying almost every instance of putrefaction of organic matter, as well as in the decomposition of animal secretions, and very often even the pathological secretions of the living human body. Although the greatest care was taken to find out a morphological difference in the form of vegetation under the above-mentioned different conditions, the same forms continually recurred; and so we have no reason to doubt the perfect unity of the vegetations for all processes of putrefaction. As we have said, they have nothing in common with the various organisms found in the different processes of fermentation.

Billroth found bacteria and micrococcos in the pericardial serum of eighty-seven out of 200 fresh human bodies. Prevalent were the larger forms of bacteria. In the blood of fresh bodies, organisms were not so frequent, yet often to be found. The diseases of which the patients died had no influence on the occurrence of bacteria in the pericardial serum. Billroth believes that they may originate from germs which existed during life, and developed into bacteria post-mortem. Foul infusions of different tissues, putrid secretions, the infusions of fresh meat, and the serum of milk developed bacteria sooner and of larger forms than all other fluids, especially than blood and pus. In those fluids they were always found later, and in smaller quantities. Still more important are the results obtained from the examination of the secretions and tissues of living men. On the granulating surfaces of wounds and in necrotic tissues, coccobacteria were not frequent, nor in the fresh secretion of wounds before suppuration had come on. More were found in the fetid and decomposed pus of wounds, but not in every case where they were looked for; and, on the other hand, they were also found in cases where the pus was perfectly sweet without any trace of decomposition. Besides, it is a very important fact that microbacteria were found in several abscesses which never had, nor could have had, any communication with the air. In the blood of living men Billroth never could detect any organisms. He has found that they do not easily develope, either in fresh secretions or in fluids where putrefaction is finished, but that they are frequent during a certain period only of putrefaction. He comes to the conclusion that those organisms in the living body and its secretions are not in the least different from those to be found during the putrefaction of dead tissues. We have, therefore, seen, according to Billroth's experiments, that microbacteria can live only in certain fluids, that the vegetations die when they become dry, but that the enduring germs (*Dauersporen*) are spread everywhere in the air, that they can assume life again when brought under favourable conditions, and that they must be contained in various tissues of the living human body, although probably not in the blood.

If vegetations of coccobacteria originating in putrid fluids or other substances are transferred to other fluids of the same or of a similar nature, but in a fresh state and without decomposition, it does not always happen that they vegetate farther and cause putrefaction of the second medium. Very often they die without any apparent cause. Sometimes, it is true, they were found to have a rapid vegetation in the second medium, and in all those cases the decomposition of the fluid was also very rapid. Dry putrid substances gave the same results. Thus, for example, urine was very quickly decomposed by dried pus, but not by a dried infusion of meat. On the other hand, it has been proved by others that decomposition of organic matter is not always accompanied by living organisms, and may occur quite independently. Therefore we cannot presume that the living organisms are the true cause of putrefaction, but only a powerful adjuvant.

The reason why microbacteria, whose germs undoubtedly exist in the living body, do not vegetate under ordinary circumstances, is that (1) germs adhering to the external surface do not find the quantity of water which is necessary for their development, and that (2) the changes of nutrition (*Stoffwechsel*) in the living tissues are too powerful to give way to those of the organisms, and do not afford them any appropriate food under normal conditions. Experiments showed that bacteria in putrid fluids did not vegetate further when injected into the blood of living animals, though the animals died from the influence of the putrid substances; and it is therefore still doubtful whether bacteria cause septic disease and putrefaction of the blood. Now, since it is the case that pus—which by itself is no appropriate substance for bacteria according to the experiments above mentioned—nevertheless contains those organisms rather frequently, Billroth is inclined to think that a substance is carried from the inflamed tissues into the pus which may afford a pabulum for bacteria. It very frequently happens that pus containing bacteria becomes decomposed but not truly putrid. It assumes a state of fermentation with the formation of butyric acid. When the inflammation around a wound ends in the formation of granulation-tissue, the decomposition of the pus and the vegetation of bacteria also cease. Such pus in a state of decomposition, and filled with organisms, is undoubtedly contagious; but it is not certain whether the air containing germs has such a highly infectious influence as is generally believed. Air may often remain for a very long time in cavities containing pus under very favourable conditions for decomposition—and yet the change may not occur. It is probable that the germs already lying in the tissues are brought into the pus when the tissues become inflamed, and then the vegetation begins. There is no other possible explanation, for instance, of the existence of bacteria in perfectly shut cavities. Accordingly, when we see decomposition of pus and vegetation of bacteria occurring in a healthy wound preserved from infection from without, those processes may be the result of special inflammatory changes. On the other hand, when sweet pus is brought in contact with decomposed pus we see a decomposition of the first and vegetation of bacteria. Billroth denies any influence of organisms on the acute progressive phlegmons so often occurring in fresh wounds; for he never could find the slightest trace of organisms in the inflamed tissues in those cases. He finds the cause of the progressive course of such phlegmons rather in the formation of a chemical substance in the inflamed tissues, which produces the same inflammatory change in the neighbourhood, which takes its origin everywhere *in continuo* where it is carried in sufficient concentration, and which produces again inflammation. This hypothetical substance is called by Billroth "*Phlogistiozymoid.*" It is probable that not the cells, but the sap of the tissues contains it; and Billroth thinks that it is diluted by the pathological exudations, afterwards reabsorbed and excreted, and that in this way the inflammation may be terminated. All the fluids containing this phlogistiozymoid Billroth considers as a good medium for the development of coccobacteria; and therefore such fluids containing bacteria are infectious. But quite the same processes may go on without any organisms at all. We cannot repeat here *in extenso* how Billroth endeavours to show that the processes of diphtheria, erysipelas, phlebitis, and thrombosis are also not due to the existence of organisms. In regard to pyæmia and septicæmia, Billroth comes to similar conclusions. He believes that in putrid secretions a substance may be formed which can be carried into the stream of the blood, and which can produce the so-called sepsis. This substance, a septic zymoid, he thinks is intimately related to phlogistiozymoid, perhaps even identical with it; and he is strongly inclined to consider the chemical processes of the inflamed tissues as analogous with those in putrid ones. It is not quite certain whether dry putrid substances produce true infection in the living body; but it seems perfectly certain that coccobacteria can carry and augment the zymoid substances, and that they may become contagious in that way. Coccobacteria is not essential to the presence of those substances, for many fluids containing those organisms do not produce any infection.

In the last part of the work, Billroth examines the influence of a great number of substances—as sugar, alcohol, salts, and acids, and especially the so-called antiseptics—on the vegetation of coccobacteria. We must leave the results to the readers of the book. He then endeavours to examine, according to his own theoretical views on infection, the different methods of antiseptic treatment of wounds. The general conclusion at which he arrives is this: antiphlogistic treatment and antiseptic treatment are very intimately connected, inflammation and sepsis being two processes so nearly analogous. Then he

thinks that amongst other methods the open treatment of wounds is especially able to prevent a certain amount of the danger of infection, but that this prevention is not absolute, because the causes of infection very often do not occur from without, but from the local processes in the wound themselves. Although Billroth believes the immediate danger and contagiousness of bacteria to be rather less great than others do, he also strongly recommends absolute cleanliness, energetic ventilation, and frequent general disinfection of the rooms and of all objects which the patients come in contact with.

We have given what must be considered a very incomplete report only of the chief results of this work, leaving the study of the questions themselves to the readers of the book. We have in it not a text-book for practitioners, but a large amount of working material for scientific men. While, on the one hand, we are grateful and full of admiration for the industry which has carried out such a large number of exact researches, we shall not go further, on the other, than to consider this new doctrine of inflammation and infection as a well-framed hypothesis, the absolute value of which is still uncertain, while its use consists in the fact of its opening up a great many views for fresh investigations. If we might have wished to see the researches on some one point or another even more fully carried out, we ought to consider that it would be the task of more than a lifetime—not to settle these questions completely, but merely in part. We cannot but heartily participate in the wish of the author that his work may call for criticism and discussion, for he thinks it better not to leave an empty space instead of a decaying house, but rather to raise a new building of his own.

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*Harvey and his Times: the Harveian Oration for* 1874. By Charles West, M.D., Fellow of the Royal College of Physicians. London. 1874. Pp. 64.

In this Oration, which is gracefully dedicated to Sir George Burrows, Dr. West gives us a sketch of the personal appearance, character, companions, life, and works of the great Harvey, with a glimpse at the education and politics of the day, so far as they affected him, and with a passing notice of some of those convulsions of opinion which are the sure forerunners of changes in affairs of State. The whole is marked by great and becoming dignity of expression, and by a scholarship both wide and deep, and by an undercurrent of profound religious thought, which looks to a higher and better order of things hereafter, to solve and perfect what in things present is doubtful, ill-understood, and imperfect. He puts before us "the little dark-complexioned man with keen black eyes and curling hair; rapid in utterance, hasty in manner, choleric in his younger days, and used then in discourse with anyone to play unconsciously with the handle of a small dagger which he wore." Yet full of sympathy and love for his fellow-men; caring much for home and home friendships, instituting a quarterly meeting and dinner of the Royal College of Physicians for the promotion of mutual good feeling; exquisitely courteous in his tone of controversy with the rivals who attacked his discovery of the circulation of the blood; nor yet betrayed into bitterness by the mention of the ruffian soldiery of the Parliament, who had driven him from his home and his pursuits, had slain his Sovereign and his friend, and destroyed papers that recorded the fruit of years of labour. The loyalty and love of king and country which he suffered for in after life were probably kindled by the sight, from the cliffs of Folkestone, of the engagement in which the few ships which represented the English navy attacked the Spanish Armada.

Our space forbids us from lingering on the interesting topics of this Oration, which, as with other productions of the kind, can only suggest inquiry, without fully gratifying it. But there is one point so true, so practical, and yet so humiliating, and therefore so much ignored by some enthusiasts amongst us, that we must quote Dr. West's remarks. What was the good, it is asked, of the discovery of the circulation of the blood? Setting aside the undoubted truth that every discovery adds to the wealth—intellectual at least—of the race, "Still to us, as practitioners of the healing art, what help came there in the exercise of our calling? Was human life prolonged, was human suffering mitigated, as its direct and immediate consequence? To both these questions we must answer *No*; but the *no* must be accompanied by two qualifications.

"*First.*—In the ordinary affairs of human life many things are done rightly, but on wrong, or at least on insufficient grounds. . . . The Ptolemaic theory of the Solar System was wrong, but it served to calculate eclipses by, as well as the Copernican.

"But *second.*—We, with our narrow span of life, are naturally in a hurry for results. What comes not in our own time seems delayed indefinitely. . . . . In the world of intellect the remote consequences of discovery are long in disclosing themselves—impossible to be foreseen." No one could have foreseen the electric telegraph in Franklin's experiments made 120 years ago. But, thanks to Harvey's discovery, we can now ascertain the nature and seat of disease in each of the four cavities of the heart, foretell its course, and render death easy if inevitable. Moreover, though facts be ascertained, inferences may be wrong and need modification, as in the case of the cell-doctrine, which Dr. West, in his translation of Müller, greatly helped to make known thirty years ago. Or, a fact may be seen singly, and not in connexion with a system of which it forms part. Dr. West gives a wholesome check to those enthusiasts who desire to apply every crude physiological discovery or speculation at once to medical practice.

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# FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, June 8.

Annual Meeting of the American Medical Association at Detroit.—Report of the Judicial Council on Professional Contracts and on Specialities—"Bidding" for Professional Appointments to Public Institutions—Reforms in the Representation—The Army and Navy Medical Services—Library of the Surgeon-General's Office—Tribute to the Memory of Dr. Ephraim McDowell—Medical Men at the Coming Centenary—A Nomenclature of Diseases—Proposed International Commission of the Association.

It has frequently happened in this country that physicians have been employed by corporations, etc., under special contracts, with annual salaries; and as this mode of securing their services has seemed to be somewhat derogatory to the dignity of the profession, the question was reported on by the Judicial Council. To this were also added the views of the Council on the subject of specialities in medicine, the code of ethics being the standard on which such views were based. It was contended in their report that the code very properly makes no mention of specialities or specialists, but presents plainly the rules necessary for the maintenance of professional character as applicable to all. As all special practice is simply a self-imposed limitation of the duties implied in the general title of doctor, it should be indicated, not by special or qualifying titles, such as *oculist*, *gynæcologist*, etc., nor by any positive setting forth of special qualifications, but by a simple, honest notice appended to the ordinary card of the general practitioner, saying, "Practice limited to diseases of the eye and ear," or "to diseases peculiar to women," or "to midwifery exclusively," as the case may be. Such a simple notice of limitation, if truthfully made, would involve no other principle than the notice of the general practitioner that he limits his attention to professional business within certain hours of the day; neither could it be regarded as a claim to special or superior qualifications. To give the specialist any privilege beyond this would be to invest him with a special privilege inconsistent with the equality of rights and duties pertaining to the whole profession.

In regard to the bestowal of professional services under specific contracts setting forth the amount of pecuniary compensation, the report states that the code of ethics prescribes that some general rules should be adopted by the faculty in every town or district, relative to pecuniary acknowledgments from their patients; and it should be deemed a point of honour to adhere to these rules with as much uniformity as varying circumstances will admit. This principle is inconsistent with contracts or agreements to attend individuals, families, companies, corporations, or any associations or institutions other than those of a strictly charitable character, for a specified sum per month or year, without regard to the amount of medical services that might be required in the time specified. It seems equally inconsistent with the ethical rule to enter into a contract with a manufacturing company to attend their *employés*, or with a school to attend its patrons or

scholars, for a fixed sum per annum, to be derived from the levy of a certain percentage on the wages of the *employés* or on the tuition fees of the students; for compensation for medical services should be in accordance with the kind and amount of services rendered, and every individual and family should be free to choose their own medical attendant without dictation or indirect restraint. These observations, the report goes on to say, do not apply to a certain kind of contract service sometimes required in connexion with the medical staffs of the army and navy, nor to the hospital tax on sailors in the marine hospital system, for reasons too obvious to mention.

There is a class of public charitable institutions, such as county almshouses, orphan asylums, etc., supported by public taxation. In many of the States the public authorities having control of such institutions annually ask for bids from the profession, offering to award the contract for professional services to the one who should bid for the lowest pecuniary consideration. The idea of asking members of the profession to bid against each other for the pay for public professional services is repugnant to every feeling of professional honour, and often productive of great injustice to the sick poor. The public authorities should fix such compensation for medical services as they may deem best, and then appoint the best medical man willing to accept the compensation.

The American Medical Association has hitherto received as delegates the representatives of every medical society, hospital, and medical college throughout the country which chose to send them to this annual gathering. Some of the bodies represented have possessed but little professional status; their position in the column of medical science has been at times obscure, and, perhaps, occasionally unworthy. Almost any organisation could be admitted to representation provided it endorsed the code of national medical honour prescribed by the Association, and the latter body, it was very evident, had become, from the nature of its own inherent composition, a mass of very heterogeneous materials. It was found that an endless variety of institutions were represented, some of them absolutely irresponsible. A thorough change has now been effected through the recent action of the Association, and hereafter a stricter basis of representation being adopted, the delegates will be chosen only from organised state, territorial, district, and county societies, and local societies which are recognised in their respective State organisations.

The medical staff of the United States army has never been on an equality of rank with the sister service of the navy, and efforts have been made to secure the legislative aid of Congress in its behalf. General interest has been awakened, and a direct appeal made to Congress, but the time selected was, as stated in a committee report on the subject, an unfortunate one for urging the claims of the medical staff. In consequence of the financial panic of last fall, the utmost economy in all administrative matters has been attempted, and at the time the Committee presented its memorial to Congress a very considerable reduction in the army had been proposed, and was under consideration.

The library of the Surgeon-General's office, at this time the largest collection of medical works, both foreign and indigenous, in this country, was brought directly to the attention of the Association by the presentation to the library of the latter of the catalogue of works embraced in it. As stated by Dr. J. S. Billings, its indefatigable librarian, a large number of foreign medical theses and pamphlets have recently been added to the library, making the total number of its titles about 65,000; but large as this may appear, it is not more than one-third of what our national medical collection should contain in order to place the medical writers and teachers of this country upon an equality with those of Europe in regard to facilities for consulting the literature of their profession. Probably, if a general raid were made by physicians on the musty contents of garrets, shelves, and closets, deficiencies in the files of journals, transactions, etc., might be readily supplied.

The following preamble and resolution, a tribute to the devisor of the operation of ovariotomy, were adopted:—

"Whereas a most laudable effort has recently originated in the Boyle County Medical Society of the State of Kentucky, and in the Kentucky State Medical Society, to create a fund for the erection of a statue, or some other suitable memorial, in honour of Dr. Ephraim McDowell, 'the father of ovariotomy,' English writers to the contrary notwithstanding, who lived in the town of Danville, in the State of Kentucky, and who performed in that town the first ovariotomy in the year 1809—Resolved, That the American Medical Association most earnestly endorse the action of said county and State Societies, and as urgently commend the object to the generous consideration of the medical profession of the world."

Active measures have been already instituted in Philadelphia by the profession to incorporate with the centennial celebration of 1876 a welcome to the medical men of the world who may be present at that time, and especially to bring them together, by such medical organisation as may appropriately meet that end, in common interests. The American Medical Association has just taken the proper preliminary action to attain this object, and will perfect, at its next annual meeting, a plan to accomplish it.

Nothing further has been done tending to the adoption of a system of nomenclature such as that recommended by the Royal College of Physicians. The Committee asked to be continued; and for another year at least the system of nomenclature, slightly modified from the English one, which was reported upon a year or two ago, must remain unacted upon.

The report of the interchange of friendly greetings between our National Association and kindred bodies abroad is a pleasant feature to be mentioned. It was suggested by Dr. Seguin, one of the American medical representatives to Europe last year, that the American Medical Association appoint an international commission of physicians of high standing, speaking the European languages and designing to go to Europe this summer. They should be charged to represent the American Medical Association before the British Medical Association, the German and French Associations for the Advancement of Science, and other kindred societies, to promote interchange of ideas, and particularly to co-operate with them in any plan, scheme, or organisation which would have for its direct object the uniform establishment and propagation of the methods and instruments of positive observation; such Commission to report on the progress of this work at the next meeting of this Association.

These are the main points of general interest worthy of mention in the proceedings of the Association, and they have been carefully separated from purely local details, which would not interest our Transatlantic brethren. I purpose to give you in my next letter a sketch of the important addresses and papers presented to the Association proper, and of the discussions elicited on the reports, cases, etc., offered each afternoon in the various sections on Practice of Medicine, Materia Medica, and Physiology, Obstetrics and Diseases of Women and Children, Surgery and Anatomy, Medical Jurisprudence, Chemistry, Psychology, and State Medicine and Public Hygiene.

## REPORTS OF SOCIETIES.

### CLINICAL SOCIETY.

FRIDAY, MAY 22.

PRESCOTT HEWETT, F.R.C.S., F.R.S., President, in the Chair.

DR. BURNEY YEO exhibited a patient, a railway clerk, aged forty-five, who had suffered from winter cough for fifteen years, and for eighteen months from rheumatic pains in the limbs. He had had no other illness, nor venereal disease, save a slight gonorrhœa twenty years ago. Three weeks before the meeting he had slipped in coming downstairs, had slidden over a flight of stone steps, whilst holding on all the while to the iron railing, and finally had fallen on his back at the bottom of the flight. Soon after (he did not remember if it were the same night), he heard a "singing noise" in his chest on lying down in bed, which kept him awake. This continued to trouble him, and finally he came to the Brompton Hospital, complaining of slight cough and this noise in his chest. On examination, the chest gave evidence of cardiac hypertrophy. The apex beats an inch and a half outside and two inches below the nipple-line. There were evidences also of emphysema—viz., weak respirations generally, patches of dilated capillaries at costal margins, and exaggerated pulmonary resonance. The heart's impulse was increased, and there was a marked thrill at the apex. A loud vibrating musical sound was heard preceding the impulse at the apex, which became louder towards the base, and was loudest over the second right costal cartilage. The sound at the base appeared diastolic,

but probably continued with less intensity through the systole. This sound was heard along the vessels and on the whole chest by applying the stethoscope to the head, and even at a distance of three feet from the patient in a quiet room. The radial pulse was small and collapsing; the arterial walls were soft and ensiform.

Dr. ANSTIE asked the experience of the Society in regard to the curability of a ruptured valve. A friend of his had his life condemned by Dr. Walshe on account of rupture of a valve, but although he was at first very ill, he was now quite well and free from sound and sphygmographic sign of such a lesion.

Dr. YEO replied that in neither of his cases was there much dyspnœa. The first patient improved much, as far as the evidence of the bruit went, but he had unfortunately been lost sight of.

Dr. SOTHERN exhibited a patient with a well marked "insane ear" produced by violence. The patient was a prize-fighter who had always been sane and healthy, nor was there any hereditary history of insanity in his family. Seven years ago he was engaged in a fight, which lasted more than three hours, and in which the ear received about twenty severe blows. After the fight was over, the ear was found to be swollen and as large as an egg; it was red very painful, and full of fluid. In about two months the tumour was reduced to its present size. The helix, fossa of the helix, and anti-helix were wholly, and the fossa of the anti-helix was partially, obliterated. The tumour was very hard, and the skin moved freely upon it. It was a typical instance of the "insane ear" being produced in a patient in whom there was no insane diathesis.

Dr. DYCE DUCKWORTH asked Dr. Sothern what reasons he had for making the diagnosis of hæmatoma auris.

Dr. SOTHERN replied that the disease had the same characters as that which is observed in insane persons—the look and feel being exactly similar,—and that from it one could almost certainly diagnose insanity, present or past. The causation was the only difficulty in the present instance.

Mr. NORTON thought the condition looked more like the effect of inflammation of the cartilage. The swelling was not continuous, but in several masses; nor was there any depression in the centre.

In reply to the President, Dr. SOTHERN said that he had dissected similar cases. A yellowish cheesy kind of mass lay between two plates of the cartilage, or between the cartilage and perichondrium. What the nature of the deposit was he could not say; its hardness was variable; it might even be represented by a yellowish fluid with clots or by disorganised blood.

Dr. DUCKWORTH said that there was a prize-fighter in St. Bartholomew's Hospital at that very time, with exactly the same condition of ear.

Dr. DUCKWORTH exhibited a child, a year old, with Favus of the Scalp, who was first brought to Dr. Church, at St. Bartholomew's Hospital, on account of hooping-cough. The disease had begun three months previously. No history whatever of contagion could be obtained. The only cat in the house was examined by Dr. Duckworth, and found to be free from favus. (Specimens of the fungus—*Achorion schönleinii*—were placed under the microscope.) Several masses of favus-crust were found upon the head, varying in size from that of a split-pea to a shilling. Dr. Duckworth mentioned that favus was of extreme rarity in London and in England generally. Out of about 5000 cases of skin disease of all kinds seen by him in the skin clinic at St. Bartholomew's during the past four years, only six cases of favus had occurred. Of these, three were instances of the disease situate upon the body in two brothers and a sister; and another of the cases was favus of the scalp in a boy recently arrived from Germany, where the disease is more common. In Edinburgh and Glasgow, favus was frequently met with. In 10,000 dispensary cases of skin disease in Glasgow, Dr. McCall Anderson saw no fewer than 156 patients suffering from favus. It was alleged that the disorder was becoming more rare in Edinburgh than formerly. The treatment consisted in poulticing and the application of suitable parasiticides.

Dr. DONKIN read particulars of a case of Diabetes Mellitus successfully treated by Skim-Milk. T. S., a farmer, aged thirty-seven, married; much accustomed to outdoor exercise, and a total abstainer from alcoholic drinks for fourteen years; had always been healthy until about seven months previously, when, in May, 1872, he began to suffer severely from dryness of the mouth, excessive thirst, listlessness, debility, and great fatigue after exertion; he rapidly lost flesh to the extent of a stone and a half in a few weeks, and his urine increased in quantity to about six or seven pints daily. In August, 1872, he was found to be suffering from diabetes mellitus, and, a physician being consulted, ordered a restricted diet of beef, mutton, gluten, bread, wheatmeal biscuits, bran bread, two eggs, and two pints of skim-milk daily. Under this regimen the symptoms of the disease were somewhat mitigated, but the specific gravity of the urine continued to range so high as from 1030 to 1050, the daily quantity being from four to five pints. On December 13, 1872, the patient came under Dr. Donkin's observation, when his urine had a specific gravity of 1040, and contained 25·340 grains of sugar to the ounce. On the day following he was placed under the skim-milk treatment. At first seven pints, and subsequently eight pints, were taken daily, divided into four meals. No other food was allowed, and no medicine prescribed. At the end of seven days of the treatment, the specific gravity of the urine had fallen to 1020, and it contained 6·345 grains of sugar to the ounce, there being a diminution of nineteen grains. On the fourteenth day the urine-sugar had fallen to 0·792, or three-quarters of a grain to the ounce. On the sixteenth day of the treatment not a trace of sugar could be detected in the urine, of which the specific gravity was 1012. From that date the urine continued entirely free from sugar. The patient now felt quite well, and free from every symptom of the disease; his strength had wonderfully improved, and the feeling of chilliness, of which he formerly complained, especially at night, had entirely left him. He was ordered nine pints of skim-milk daily, five or six of which were taken in the liquid state, and three or four in the shape of curd prepared by the essence of rennet. On the thirty-ninth day of the treatment, the sugar having been absent from the urine twenty-two days, the daily allowance of skim-milk was reduced one pint, and, in addition to this regimen, he was allowed a half-pound of mutton chop with greens in the middle of the day. This change in diet caused the specific gravity of the urine to rise to 1018 and 1020, but without any return of the sugar. On February 14, 1873, two months from the commencement of the treatment, the patient had regained eight pounds in weight, and a corresponding increase of strength. On April 9 he had gained a stone in weight, and felt much stronger and better than he had done since the commencement of his illness—in short, being in excellent health and spirits. At this date his urine had a specific gravity of 1020, and was free from sugar; his diet now consisted of about six or seven pints of skim-milk with plenty of solid animal food and green vegetables. On February 17 of the present year (1874)—fourteen months after the commencement of the treatment—the patient still continued quite well, his urine being free from sugar; he had increased considerably in weight, and for some time previously he had been taking ordinary bread at his meals, and living under very slight restriction as to diet, but still abstaining from alcoholic drinks; he still continued well. This was a case of severe confirmed idiopathic diabetes, and pronounced such by his medical advisers, in which a restricted diet, excluding, in a great measure, vegetable sugar and starch, was persevered in for four months, at the end of which period the patient was passing from 2500 to 3000 grains of sugar daily, and had received only slight improvement in his condition. But, under the skim-milk treatment, the glycosuria disappeared entirely within sixteen days; this effect being followed by a complete restoration of health, flesh, and strength. The patient continued to live by rule, excluding starch and vegetable sugar as much as possible from his food for several months, but taking, after some time, a large quantity of lactine, or milk-sugar, in the skim-milk. The result being that, within a year after his recovery, he began to take an almost ordinary diet with impunity. The case had, moreover, before the commencement of the treatment, passed into the advanced stage in which the albuminous constituents of ordinary solid nitrogenous food undergo saccharine metamorphosis, the result being the development of rapid emaciation and a cachectic condition, soon ending fatally if the disease is not arrested. It is in such cases that the superior efficacy of the skim-milk treatment is so conspicuous. In such cases, if even the glycosuria cannot be completely removed, and the disease altogether arrested, on account of being too far advanced, or complicated with some of the necessarily fatal affections which become developed in the course of its progress, the subjugation of the most distressing symptoms, and a wonderful improvement in the

strength and general health of the patient, can generally be effected. A remarkable instance of this description has recently been recorded in the "Army Medical Reports" for 1871 (page 278, No. 9), that of a soldier treated in the Netley Hospital, by Dr. W. J. Fyffe, Assistant-Professor of Medicine, Netley College. I have since been informed by Dr. Fyffe, that in two other cases the treatment had been equally beneficial under his care. Two circumstances, he said, had struck him—first, the rapid diminution in the quantity of the urine; and secondly, the rapid improvement of the health of the patient. A still more remarkable case had recently been reported in the *Transactions* of the Medical Society of the State of Pennsylvania (vol. ix., p. 194, 1872); the patient though bedridden, and passing thirty pints of urine daily of a specific gravity of 1050, completely recovered. In cases in which the glycosuria cannot be completely removed by a strict skim-milk regimen, the addition of solid animal food to the diet of the patient almost always increases the quantity of urine-sugar, and aggravates the disease. What light does the effect of the skim-milk treatment throw on the pathology of diabetes mellitus? Does it not go far to prove that the disease is not a neurosis, an affection of the nervous system, cerebro-spinal or sympathetic, but a disease of mal-nutrition and secretion, probably of the liver?

Dr. Headlam Greenhow referred to a similar case which he had brought before the Society last year, and related its progress since that time. In September last the legs became œdematous and ulcerated. Generous diet, including porter, was given, and yet no sugar was found in the urine until the discharge ceased, when the diabetes returned. This condition was in its turn removed by skim-milk treatment. In another case he had succeeded in removing all trace of sugar in the urine by three or four weeks' treatment with skim-milk. After being well for many months, the patient returned to his former habits, drinking wine and beer, the result of which was that the diabetes reappeared, and nine or ten pints of urine were passed daily, of a specific gravity of 1040. He was now under treatment.

Dr. Dickinson said that he should have liked to have heard more of the cases where skim-milk does not cure, but does harm or even kills. He had not himself tried the method. At the hospital he had been prevented from trying it by the nurse, who had seen two patients die under it, one suddenly and the other slowly. Looking at what was known of diabetes, Dr. Dickinson said we must not consider these as cases of cure. Great changes were found post-mortem in the cerebro-spinal centres, which could not be cured by skim-milk, or by any other treatment; and if by anything, surely not by skim-milk? It was known that milk-sugar could be digested in mild cases, but in severe cases no sugar at all; and if a patient with advanced diabetes had milk, he would pass more sugar in the urine, and lose the fat which might have been taken up. The skim-milk system was one of starvation-diet, and as diabetes killed by inanition, what promoted that must be injurious. These statements applied to ordinary diabetes—nervous in origin. There were other cases of temporary digestive diabetes where purging, pure water, and starvation would cure. But that skim-milk should be beneficial in ordinary cases of diabetes, Dr. Dickinson utterly disbelieved. With all respect for Dr. Greenhow, he believed that some error must have crept into the report of his last year's case. In diabetes the amount of water passed is known to be somewhat in excess of that of the fluids drunk. But in Dr. Greenhow's case the amount of skim-milk drunk was three or four times as great as that of the water passed.

Dr. Anstie said that he did not question Dr. Donkin's facts, but objected to his theory. Dr. Donkin had said that skim-milk was useful in the advanced stage of diabetes when albumen is converted into sugar. Now skim-milk was highly nitrogenous: and yet we were recommended to give it in large quantities? How were these facts to be reconciled?

Dr. Greenhow replied to Dr. Dickinson that in his case there was great perspiration, and that this was evidently an effect of the treatment. He considered the treatment only a dietary one.

Dr. Dyce Duckworth inquired whether patients increase in weight on pure milk. A patient of his was six weeks under this treatment—the amount of sugar was diminished, but the patient emaciated.

Dr. Donkin replied to Dr. Duckworth that in the case which he had read the sugar was removed from the urine, and the bodily weight increased. To Dr. Greenhow—that the patient to whom he (Dr. Greenhow) had referred had returned to ordinary diet. That was the point; if patients would but keep sufficiently long from ordinary food they would be permanently cured. He had watched such a case four years. Dr. Dickinson, he said, believed diabetes to be due to a disease of the cord and brain around the vessels. Would he affirm that these lesions exist at the commencement of the diabetes? As for the relation of liquid ingesta and egesta in Dr. Greenhow's case, it must be remembered that three parts of skim-milk are solid casein, and not a liquid like water, and that in casein the proportion of solids is much the same as that in muscle. To Dr. Anstie he would reply that lactine was converted into lactic acid, and passed off as carbonic acid and water. His experiments had confirmed this, and lactine was not, therefore, converted into sugar in diabetes. At the stage of diabetes, when albumen was in a great measure converted into sugar, skim-milk would arrest or even cure it. This fact went far to prove that diabetes was not a neurosis. It was a disease of mal-nutrition, mal-secretion, and mal-assimilation.

Dr. Buzzard related a case of Tumour in Cerebellum and Medulla Oblongata, in a boy, aged ten, who had been admitted into the National Hospital for the Paralysed and Epileptic, on December 17, 1873, with pains in the vertex and occiput, attacks of vomiting, paresis of all four limbs, especially those of the left side, and double optic neuritis. It seemed that he had never regained health after an attack of scarlatina followed by dropsy, at the age of eight years; and that about six months before he applied, he had begun to have pains in the head and convulsive seizures, ending in vomiting. Three maternal uncles had died of phthisis. A tubercular tumour of the cerebellum was diagnosed. After admission, deviation of the tongue to the right side was noted. He became progressively weaker, and lost his sight. Symptoms of meningitis betrayed themselves in March, and death took place on April 7, after a few days' delirium and coma. The necropsy disclosed a mass of tubercle, the size of a Maltese orange, in the left cerebellar hemisphere, a smaller tumour of the same character involving the right anterior pyramid and olivary body of the medulla oblongata, and a collection of yellowish lymph beneath the arachnoid at the base of the brain about the interpeduncular space. Dr. Buzzard remarked upon the interesting fact that the boy, on his admission, could read the smallest type and name colours accurately with the right eye, at a time when its disc presented well-marked optic neuritis. The greatest want of power had been experienced in the limbs of the same side of the body as that occupied by the tumour, but no anatomical inference was fairly deducible from this fact, as the presence of the second tumour in the right half of the medulla oblongata might account for it.

Dr. Greenhow related particulars of a case of Acute Rheumatism attended by Cerebral Symptoms, without Hyperpyrexia. A police-constable, aged 23, two years ago suffered from an attack of acute rheumatism, during which, according to his own account, his head had been affected, so that he could not remember what had taken place during the time of his illness. Six days before admission, his present attack had commenced with headache, sickness, and pains in the left ankle. When admitted, he presented the ordinary symptoms of rheumatic fever, with a soft friction-sound over the apex of the heart. In the course of a few days, the pains subsided; but there was profuse sweating, and the temperature once reached 103·3° Fahr., the highest temperature recorded throughout the case. On the ninth day after admission (the fifteenth of the disease), the patient became delirious, incoherent, and wandering, with much jactitation of the body, constant choreal movements of the fingers of the left hand, tremor of the right hand, and subsultus. These symptoms continued for five days, and then began to subside; but, even after the delirium had left him, he remained for some days incoherent and childish in manner, and the choreal movements of the left hand continued. These, however, gradually disappeared, and he was discharged convalescent. The treatment consisted mainly in hemlock-juice and bromide of potassium. Dr. Greenhow remarked that there was a great resemblance between this case and others which had been brought before the Clinical Society; but at the same time there was a marked absence of the hyperpyrexia which has been supposed by some authorities to give rise to the cerebral symptoms. The case was, therefore, of importance in showing that the hyperpyrexia in cases of this class was not the cause, but the effect, of the brain-paralysis; and that it is an effect which is not invariably produced.

Dr. ANSTIE inquired whether the patient recovered, to which Dr. GREENHOW replied in the affirmative.

Mr. ARTHUR I. NORTON read notes of two cases which he considered typical instances of Inflammation of the Secreting Tissues of the Tonsil, and lining membrane of the crypts and the channels connected with them, in contradistinction to inflammation of the parenchymatous structure of the gland. These two forms of inflammation of the tonsil, he said, were totally different in cause, in every symptom, in treatment, and results. The diagnostic symptoms were compared as follows:

TONSILLITIS.

| *Catarrhal.* | *Parenchymatous.* |
|---|---|
| A mucous inflammation, three or four days' duration. *Causes:* Exposure, draught, damp, cold, etc. | A fibrous inflammation, two to four weeks' duration. *Causes:* Often neighbouring inflammation, cutting wisdom-teeth, etc. |
| Prostration, and often profuse perspiration. Pulse small and quick. Never runs on to abscess. | High fever, with hot dry skin. Pulse strong, hard, as in fibrous inflammation; commonly forms an abscess. |
| Both tonsils affected. | Rarely both affected. |
| Lacunæ filled with masses of morbid secretion, resembling ulcers. | Often covered with lymph, but no collection of secretion in lacunæ. |
| No œdema around. | Extensive œdema around. |
| *Treatment:* Tonics and stimulants from first, and astringent gargles. | Antiphlogistics and depressants, but never gargles, except in the form of warm water. |

With regard to the pathology, it was shown, by means of drawings, that the lining membrane of the crypts and channels of healthy tonsils was covered with papillæ of large size, not unlike the villi of the small intestines. Each papilla was somewhat conical, attached by its apex, covered with a spherical form of epithelium, and contained capillary bloodvessels. In chronic catarrhal tonsilli[illegible], these papillæ increased in size twice or threefold; t[illegible]ing membrane assumed the form of nodular elevations, not unlike grains of sago, and the cavities of both crypts and channels became greatly dilated. Secondary to these conditions, if subacute inflammatory action continued, the parenchymatous tissue increased in thickness by proliferation, and thus permanent hypertrophy of the gland was produced.

## MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 2:—

Cory, Frederic William, Buckhurst-hill.
Ranking, John Ebenezer, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Brenchley, Algernon Dutton, Guy's Hospital.
Davis, Henry, Middlesex Hospital.
Evans, Thomas, King's College.
Rodwell, Edward Manley, Charing-cross Hospital.
Vanes, Arthur Bayley, Queen's College, Birmingham.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

RANGER, W. GILL, M.R.C.S.E.—Assistant Dental Surgeon to St. Thomas's Hospital.

SMITH, ROLAND D., M.R.C.S. Eng.—House-Surgeon to the London Hospital, *vice* W. D. Bowkitt, resigned.

### NAVAL APPOINTMENTS.

ADMIRALTY.—The undermentioned Staff Surgeon of the Second Class has been promoted to the rank of Staff Surgeon in her Majesty's Fleet from the 16th ult.:—Daniel Finucane, M.D.

### BIRTH.

GRIFFITHS.—On July 4, at Hinckley, the wife of W. H. Griffiths, M.R.C.S. Eng., L.S.A., of a daughter.

### MARRIAGES.

BANKS—ELLIOTT.—On July 2, at Christ Church, Liverpool, William Mitchell Banks, F.R.C.S., 28, Rodney-street, to Elizabeth Rathbone, younger daughter of John Elliott, Esq., Aigburth, Liverpool.

DURANT—TOWNSEND.—On June 2, at St. Marylebone Church, Edmund Durant, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., son of the late George Durant, Esq., of Winchester, to Mary Ann Ada Absolom, eldest daughter of the late Lionel Townsend, M.D., of Attleborough, Norfolk.

STRONG—PEYTON.—On May 5, at St. James's Church, Sydney, New South Wales, W. E. Strong, M.D., of Liverpool, N.S.W., to Frances Helena, only daughter of the late Lieutenant-Colonel John Peyton, Bombay Army.

TRUEMAN—FITZGERALD.—On June 1, at King William's Town, South Africa, Charles Hamilton Trueman, Captain 32nd Light Infantry, only son of Charles J. Trueman, Esq., of Oatwell, Kent, and Torrs, Stewartry, of Kirkcudbright, to Dorothea Magdalena, younger daughter of J. P. Fitzgerald, M.D., M.R.C.S., of King William's Town.

WHEELER—PEREGRINE.—On July 7, at St. George's, Hanover-square, Thomas Henry Wheeler, only son of Thomas Rivington Wheeler, Esq., of Sunbridge, Kent, to Cecilia Sage Propert, third daughter of Thomas Peregrine, M.D., of Half Moon-street, Mayfair, W.

WOOLHOUSE—ODLING.—On July 2, at Trinity Church, St. Marylebone, Frederick Woolhouse, of Brook-hill, Sheffield, to Ellen, youngest daughter of Francis Odling, M.R.C.S. Eng., L.S.A., of 52, Devonshire-street, Portland-place, W.

### DEATHS.

PALMER, HENRY, M.R.C.S., of Great Bedwin, Wilts, youngest son of W. H. Palmer, Esq., of East Garston, Berks, on July 3, in his 38th year.

WARING, CAROLINE ANN, wife of Edward John Waring, M.D., F.R.C.P., F.R.C.S., late H.M. Indian Medical Service, at 49, Clifton-gardens, W., on July 6, aged 54.

### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BUCKINGHAM INFIRMARY.—Resident Surgeon and Apothecary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, George Fell, Esq., Solicitor, Aylesbury, on or before August 4.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

EVELINA HOSPITAL.—Registrar. Candidates must be duly qualified. Applications, with testimonials, to the Committee of Management immediately.

GENERAL INFIRMARY, NORTHAMPTON.—House-Surgeon. Candidates must be duly qualified. Also an Assistant to the House-Surgeon. Applications, with testimonials, to the Secretary, on or before July 18.

KING'S COLLEGE, MEDICAL DEPARTMENT.—Professor of Materia Medica, Professor of Comparative Anatomy, and Physician to King's College Hospital. For particulars, apply to J. W. Cunningham, Esq.

KINGTON UNION.—Medical Officer for the New Radnor District. Candidates must be duly qualified. Applications, with testimonials, to the Clerk of the Union, on or before July 24.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to James Houghton, Esq., Treasurer, at the Hospital, on or before July 22.

NORTH STAFFORDSHIRE INFIRMARY.—House-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before July 22.

WEST NORFOLK AND LYNN HOSPITAL, LYNN.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Weekly Board, on or before July 18.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Burnley Union.*—The Habergham Eaves District is vacant; area 14,934; population 20,815; salary £50 per annum.

*Kington Union.*—Mr. Kenyon has resigned the New Radnor District; area 25,868; population 3084; salary £80 per annum.

*Pocklington Union.*—The First Market Weighton District is vacant; area 12,845; population 1968; salary £19 per annum.

*Staines Union.*—The Sunbury District is vacant; area 6120; population 5525; salary £75 per annum.

### APPOINTMENTS.

*Holborn Union.*—Charles F. Knight, M.R.C.S. Eng., L.S.A., to the Farringdon-road Workhouse.

*Rochford Union.*—Francis D. Grayson, M.R.C.S. Eng., L.S.A., to the Hadleigh District.

*Skirlaugh Union.*—Wm. H. Browne, L.R.C.P. Edin., L.R.C.S. Edin., to the Aldborough District.

*Solihull Union.*—James P. Oates, M.R.C.S. Eng., L.S.A., to the Tanworth District.

*Sudbury Union.*—Wm. J. Mason, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A. Lond., to the Third District and the Workhouse.

*Tendring Union.*—Charles H. Furnivall, M.R.C.S. Eng., L.S.A., to the Sixth District.

THE library of the Medical Society of London will be closed until the 31st inst.

THE celebrated Mr. Thomas Banting left £20,000 for building a convalescent home at Worthing, to be called the Banting Memorial.

AT the competitive examination for the prizes in botany given annually by the Apothecaries' Society to medical students, the gold medal has been awarded to William Andrew Shoolbred, of St. Bartholomew's Hospital, the silver medal and books to Francis Goodchild, of St. George's Hospital.

Mr. Scott, the Public Analyst for Derbyshire, in a letter to the Court of Quarter Sessions, complains that the Adulteration of Food Act is a dead letter, owing to the non-appointment of inspectors, and that although he has incurred considerable expense in making preparation, he has had no means of obtaining any recompense.

Mr. Richard Apjohn, the Public Analyst for the county of Huntingdon, reported to the last Court of Quarter Sessions in the following terms:—"Being at this time required by Act of Parliament to furnish a quarterly report, I beg leave to state that since my appointment as public analyst to the county of Huntingdon, I have had no article of any description submitted to me for analysis, and, I may add, I have enjoyed a like experience in the three other jurisdictions in which I hold appointments. Whilst, therefore, the public show their present reluctance to avail themselves of the services of the public analyst, it is impossible for me to report on the absence or presence of adulteration in the district."

University of Dublin.—School of Physic, Trinity College.—The Medical Scholarships, value £20 per annum for two years, have been awarded to—(1) William Blunden, (2) William A. Booker. Mr. John Flood, who obtained third place, was specially recommended for an additional scholarship. Theodore Stack, M.B., Scholar of Trinity College, has been awarded a supplemental Surgical Travelling Prize of £50, for distinguished answering at the recent examination. The Medical Exhibitions, given by the Professors of the School of Physic, have been awarded as follows:—First, Charles Young; second, Alexander McLaughlin and John Dorman (equal).

The late Dr. Charlton.—The Committee of the Newcastle-on-Tyne Infirmary have passed the following resolution:—"The House Committee desires to record its deep sense of the loss which the Infirmary has sustained by the death, on the 14th ult. (May), of Edward Charlton, Esq., M.D., Senior Physician to the Infirmary, and chairman of its Medical Board. The eminent abilities of Dr. Charlton, his skilful and kind treatment of the patients, and his uniform courtesy to his medical brethren, and to this Committee and others during his long connexion (twenty-one years) with the Infirmary, had won for him the respect of all connected with the Institution. This Committee deeply sympathises with Mrs. Charlton, and desires a copy of this minute to be transmitted to her."

Effects of Chloroform on the Fœtus.—Dr. Zweifel, Assistant in the Strasburg Obstetrical Clinic, has been investigating this subject by examining the urine of new-born infants to whose mothers chloroform had been administered. He details at length the procedure he adopted, and comes to the conclusion that chloroform administered to a lying-in woman (in some of the cases only a small quantity was employed) passes into the circulation of the fœtus, and that the child may in this way be narcotised.—*Berlin. Klin. Woch.*, May 25.

Composition and Quality of the Metropolitan Waters in June, 1874.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

| Names of Water Companies. | Total Solid Matter per Gallon. | Oxygen required by Organic Matter, &c. | Nitrogen. | | Hardness. | |
|---|---|---|---|---|---|---|
| | | | As Nitrates &c. | As Ammonia. | Before Boiling. | After Boiling. |
| *Thames Water Companies.* | Grains. | Grains. | Grains. | Grains. | Degs. | Degs. |
| Grand Junction | 17·17 | 0·066 | 0·086 | 0·002 | 14·0 | 3·3 |
| West Middlesex | 16·73 | 0·051 | 0·098 | 0·001 | 14·0 | 3·3 |
| Southwark & Vauxhall | 17·53 | 0·056 | 0·089 | 0·002 | 14·3 | 3·8 |
| Chelsea | 17·31 | 0·002 | 0·098 | 0·002 | 13·5 | 3·3 |
| Lambeth | 17·19 | 0·060 | 0·100 | 0·003 | 14·0 | 3·5 |
| *Other Companies.* | | | | | | |
| Kent | 27·03 | 0·003 | 0·246 | 0·000 | 21·0 | 5·6 |
| New River | 16·54 | 0·009 | 0·088 | 0·000 | 13·6 | 3·3 |
| East London | 16·58 | 0·051 | 0·123 | 0·001 | 13·5 | 3·5 |

*Note.*—The amount of oxygen required to oxidise the organic matters nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in those of the Lambeth, the Southwark and Vauxhall, and the Grand Junction Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 121,281,889 gallons; and the number of houses supplied was 510,033. This is at the rate of 35·7 gallons per head of the population daily.

Devonshire Hospital and Buxton Bath Charity.—The report of this Charity for the past half-year was published on July 4. The state of the Hospital is very encouraging. The number of patients admitted during the last six months was larger than in any corresponding period previously, and its financial position is sound and satisfactory.

Infantile Paralysis.—The May number of the *American Journal of Obstetrics* contains an elaborate paper on this subject, which was read at the New York County Medical Society by Mrs. Dr. Jacobi, formerly known as Dr. Mary Putnam, but now married to the well-known obstetrician of New York, Dr. Jacobi. The essay, although not containing any original observation or research, presents a very able view of the pathology of the disease, derived from an analytical survey of the recent literature related to the subject.

Mission Dispensaries.—Surgeon-Major W. J. Moore, Superintendent-General of Dispensaries and Vaccination for Rajpootana, and Sanitary Officer, Ajmere and Mhairwarra, in his report for 1872-73 writes:—"The gentlemen of the United Presbyterian Mission, for whom I entertain the greatest respect, whose evangelical labours, whose endeavours to promote education, and whose care of some five hundred orphans are worthy of the highest commendation, are now opening dispensaries in various parts of the country. Thus Ajmere, Nusseerabad, Beawur, Todghur, and Deolee are so occupied. Of course in these institutions medicine and surgery will only be used as a lever, or stepping-stone, to the esteemed more important evangelical labour. And opinions may differ as regards both the desirability and the propriety of such means to such end. It may be questioned if it be exactly right to take advantage of the pangs and pains of sickness to endeavour to change the patients' religion, and it may, on the other hand, be urged that every means to this end are justifiable. As so much may be said on both sides, I refrain from entering on a *quæstio vexata*. But I trust I may be excused in observing that at small places, such as Todghur, Deolee, or even Beawur, it seems a pity that mission energy and money should be unnecessarily expended in dispensaries when the existing institutions are quite sufficient for the wants of the people. If missionary work requires the support of medicine and surgery, such support, I submit, should be rendered with discrimination, and not, I think, be brought forward in localities where it is not required for the physical welfare of the inhabitants. In large cities, such as Ajmere, there is plenty of scope for two dispensaries, and I consider the mission are performing a good work in the dispensary operations there carried on. But in small towns there is not this scope, and one or other institution must become more or less useless. The Government dispensaries are necessary in the conduct of public business, as regards the reception of police cases, in affording medical evidence to the courts, in answering the claim of attendance on Government servants, and in various other manners in which the mission dispensaries will not be so useful. Yet unless the mission would undertake such work, equivalent to placing their dispensaries under a certain degree of control, which they probably will not do, their operations should, in my opinion, be confined to spheres of which there are no lack, where they would not clash with the Government institutions. Already the establishment of a mission dispensary at Todghur has resulted in the inhabitants of that place declining subscription to the Government institution, on the grounds that they will be able to obtain medical aid from the mission and from the European medical missionary."

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*J. C. L.*—Your communication shall appear as soon as possible.

*Waterclosets.*—The *Times* justly says of them that the past generations invented them, leaving this generation to complete them, and the next to find out some means, if any, of rendering them compatible with public health.

*D. D. C.*— "Death his dart
Shook, but delayed to strike."—*Milton.*

*Nemo.*—Sir Humphry Davy delivered courses of lectures to the Dublin Society successively in 1810 and 1811. The sum of £1170 was voted him for the two courses—400 guineas for the first, £750 for the second. Trinity College, Dublin, conferred on him the degree of D.C.L.

*Martinus.*—In a debate in the House of Commons last month on the Licensing Bill, an amendment was adopted in connexion with the twenty-seventh clause, defining a town as any urban sanitary district under the Public Health Act, 1872.

*T. R. G.*— "From Law to Physic stepping at our ease,
We find a way to finish—by *Degrees*."—*Crabbe.*

### Carmichael Prizes.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can you or any of your readers tell us why the Carmichael Prizes awarded (1873) to Drs. Ash and Dale have not been published and circulated, as directed by the will of the late Mr. Carmichael? "Seven hundred of the prize essays to be published and sent to all Cabinet Ministers and Privy Councillors in both countries, and to all councillors and governing members of all medical colleges and corporations." Surely, Sir, at this important crisis in medical politics, the omission of such an enactment is highly culpable. I am, &c., Edwards Crisp.

29, Beaufort-street, Chelsea, July 2.

### Change of Climate in Britain.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As bearing on this subject, it may be confidently affirmed that wine was once a common product of this country. Vopiscus, a writer of the second century, quoted by Merivale ("Roman Emperors"), says of Bomitian, about A.D. 96—"Gallis omnibus et Hispanis et Britannis permisit ut vites haberent, vinumque conficerent."

July 2. I am, &c., Oinophilos.

### BOOKS AND PAMPHLETS RECEIVED—

Pereira's Elements of Materia Medica—Foster's Clinical Medicine—Traité Pratique des Maladies des Voies Urinaires, par Sir Henry Thompson—Résumé d'Anatomie Appliquée, par Professeur Paulet—Du Chancre Syphilitique Multiple Herpétiforme, par le Dr. A. Dubuc—McDonnell on the Torsion of the Bloodvessels—Fitzgerald on the Ophthalmoscopic Appearance of the Optic Nerve in Cases of Cerebral Tumour—Garrod's Materia Medica.

### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Allgemeine Wiener Medizinische Zeitung—La Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—La Tribune Médicale—La France Médicale—Gazette des Hôpitaux—Popular Science Review—Lincoln Journal—York Herald—Gazette Hebdomadaire — Public Health — Westminster Review — Nuneaton Chronicle.

### COMMUNICATIONS have been received from—

Dr. Lucas, Hammersmith; Oinophilos; Dr. Edwards Crisp; The Secretary of the Statistical Society; Mr. H. Kimpton, London; Sir Henry Thompson, London; Dr. Edward Long Fox, Clifton; Dr. J. Fayrer, London; Dr. Eustace Smith, London; Mr. G. Street, London; Dr. D. Campbell, Alfreton; Dr. Stainthorpe, Hexham; Dr. J. R. Gray, Liverpool; Dr. Trollope, St. Leonards; Dr. Novelli, London; Mr. Maunder, London; Mr. Courtney, Leatherhead; Dr. Wall, Fishguard; Mr. Crosswell, Llanboidy; Mr. R. F. Snape, Bolton-le-Moors; Messrs. Fettes and Stone, Laurencekirk; Dr. Hussey, Oxford; Mr. H. V. Carter, London; Mr. G. Hill Smith, Stevenage; Mr. J. Prince, Staines; Dr. Morris Tong, Harrow; Mr. H. O. F. Butcher, Ware; Mr. J. Jarman, Rhayader; Messrs. Brand and Co., London; Dr. Charles West, London; Mr. J. E. Wakefield, London; Mr. Archibald, Dalry; Dr. H. Lloyd, Malahide; Professor Humphry, Cambridge; Dr. G. H. B. Macleod, Glasgow; Dr. Joseph Rogers, London; Dr. W. Bathurst Woodman, London; Mr. C. S. Jeaffreson, Newcastle-upon-Tyne; Dr. W. Squire, London; Mr. J. Chatto, London.

## APPOINTMENTS FOR THE WEEK.

*July* 11. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

13. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

14. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

15. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

17. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, July* 4.

### BIRTHS.

Births of Boys, 1191; Girls, 1053; Total, 2244.
Average of 10 corresponding years 1864-73, 2086·0.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 679 | 657 | 1336 |
| Average of the ten years 1864-73 | 655·7 | 618·4 | 1284·1 |
| Average corrected to increased population | ... | ... | 1413 |
| Deaths of people aged 80 and upwards | ... | ... | 48 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 2 | 2 | ... | 4 | 1 | ... | ... | 18 |
| North ... ... | 751729 | ... | 9 | 4 | 1 | 5 | 6 | 2 | 1 | 22 |
| Central ... | 334369 | ... | 3 | 5 | ... | 2 | 1 | 1 | 1 | 11 |
| East ... ... | 639111 | 1 | 1 | 15 | 2 | 5 | 1 | 2 | ... | 24 |
| South ... ... | 967692 | 1 | 8 | 5 | 4 | 12 | 2 | 6 | 2 | 11 |
| Total ... ... | 3254260 | 2 | 23 | 31 | 7 | 28 | 11 | 11 | 4 | 86 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·788 in. |
| Mean temperature | 61·8° |
| Highest point of thermometer | 86·7° |
| Lowest point of thermometer | 50·9° |
| Mean dew-point temperature | 55·8° |
| General direction of wind | W.S.W. |
| Whole amount of rain in the week | 0·20 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 4, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending July 4. | Deaths Registered during the week ending July 4. | Temperature of Air (Fahr.) Highest, during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2244 | 1336 | 86·7 | 52·7 | 61·8 | 16·56 | 0·20 | 0·51 |
| Portsmouth ... | 120436 | 26·8 | 60 | 36 | ... | ... | ... | ... | 0·32 | 0·81 |
| Norwich ... ... | 82257 | 11·0 | 59 | 41 | 85·0 | 50·0 | 61·5 | 16·39 | 0·17 | 0·43 |
| Bristol ... ... | 192889 | 43·3 | 136 | 75 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 54 | 27 | 80·3 | 47·8 | 60·2 | 15·66 | 0·25 | 0·63 |
| Birmingham ... | 360892 | 43·0 | 274 | 158 | 80·6 | 49·3 | 59·7 | 15·39 | 0·53 | 1·35 |
| Leicester ... ... | 106202 | 33·2 | 61 | 31 | 82·1 | 50·6 | 59·9 | 15·50 | 0·33 | 0·84 |
| Nottingham ... | 90894 | 45·5 | 62 | 31 | 83·7 | 47·3 | 61·0 | 16·11 | 0·31 | 0·79 |
| Liverpool ... ... | 510640 | 98·0 | 323 | 290 | 76·5 | 52·3 | 59·0 | 15·00 | 0·43 | 1·09 |
| Manchester ... | 355339 | 82·8 | 269 | 207 | ... | ... | ... | ... | ... | ... |
| Salford ... ... | 133068 | 25·7 | 109 | 61 | 76·4 | 41·0 | 57·5 | 14·16 | 0·72 | 1·83 |
| Oldham ... ... | 86281 | 18·5 | 74 | 39 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 93 | 83 | 76·8 | 47·0 | 59·2 | 15·11 | 0·31 | 0·79 |
| Leeds ... ... | 278798 | 12·9 | 195 | 127 | 80·0 | 48·0 | 60·0 | 15·56 | 0·18 | 0·46 |
| Sheffield ... ... | 261029 | 13·3 | 193 | 100 | 81·5 | 45·0 | 59·9 | 15·50 | 0·43 | 1·09 |
| Hull ... ... ... | 130996 | 36·0 | 91 | 49 | 83·0 | 45·0 | 60·8 | 16·00 | 0·33 | 0·84 |
| Sunderland ... | 104378 | 31·6 | 73 | 47 | 81·5 | 49·5 | 61·3 | 16·28 | 0·14 | 0·36 |
| Newcastle-on-Tyne | 135437 | 25·2 | 107 | 57 | 75·0 | 43·0 | 56·4 | 13·55 | 0·24 | 0·61 |
| Edinburgh ... ... | 211691 | 47·8 | 116 | 86 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 393 | 258 | 68·9 | 45·0 | 53·3 | 14·61 | 1·53 | 3·89 |
| Dublin ... ... | 314666 | 31·3 | 149 | 139 | 72·7 | 40·3 | 60·3 | 15·72 | 0·74 | 1·88 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5135 | 3278 | 86·7 | 40·3 | 59·8 | 15·44 | 0·42 | 1·07 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·79 in. The lowest was 29·48 in. at the beginning of the week, and the highest 29·96 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# MEETING OF THE GENERAL MEDICAL COUNCIL.

Held at their House, Oxford-street, W.

First Day.—Thursday, July 9, 1874.—(*Continued.*)

The next business proceeded with was the appointment of the Business and Finance Committees.

The Registrar then read the report of the Executive Committee as to the new premises for the Medical Council, and on the motion of Dr. Storrar the report was ordered to be received and entered on the minutes.

Sir William Gull thought there should be some record of the thanks of the Council to Dr. Quain for the care and ability with which he had carried out the negotiations.

After a few words from Dr. Sharpey, who seconded the resolution, it was carried unanimously.

Dr. Quain said no work had ever given him greater satisfaction. He had always felt that a Council which had such very important duties to perform, and which did those duties so well to the public and to the profession, was deserving of a better place. He regretted that it was in such an unfinished state.

Dr. Bennett was very much impressed with the obligations they were under to the members of the Office of Works, who had been not only energetic and efficient, but also personally courteous and kind. He had been told by house agents that their premises were worth £600 a year, and therefore it was evident they were receiving considerable assistance from the Government.

Dr. Storrar moved—"That the General Council approve the arrangements recommended by the Executive Committee for the apportionment of payment by the Branch Council of the rent, taxes, and expenses of offices, etc."

The resolution, having been seconded by Dr. Pyle, was carried.

Dr. Paget at this moment entered the room, and was informed of the resolution that had been passed. He said he scarcely knew how to thank the Council. He had, he confessed, some time ago, imagined that to be elected President by his colleagues, who had known him for so many years, was the highest kind of honour a man could have. Knowing, as he did, how to appreciate the honour, the members of the Council would not mistake him when he said he could not hold it long. It would be a pleasure to him, and perhaps it would be convenient to the Council, that he should hold it for the greater part of the session, but he must then resign and leave them to choose another President.

The Registrar read a letter from the Queen's University in Ireland, applying to the Council to register in the Medical Register diplomas for midwifery. Counsel's opinion was taken, to the following effect:—"We are clearly of opinion that the Medical Council cannot register diplomas in midwifery."

Dr. Quain moved, and Sir William Gull seconded, that the opinion of counsel be read and inserted on the minutes, which was carried.

Dr. Andrew Wood moved—"That the Reports of the Visitations of Examinations be received and appended to the minutes of the present session of the Council."

Dr. Storrar doubted whether it was desirable to make public all the details of the visitations. The reports were in a confidential form, and he did not think it an advisable step for the Council to display before the public reports that might possibly be calculated to give pain to certain bodies that had been the subject of visitation. The system of visitation examinations was one of the most important functions which the Council could exercise; at the same time, its advantages would depend very much upon the spirit with which the visitations were carried out, and if it should be thought that there was a disposition to find fault they would fail in achieving the advantages which they hoped to derive from these inspections. He would suggest that instead of referring the reports to the Committee they should be sent confidentially to the several bodies to which the reports refer, and whose attention should be invited to them.

Dr. Parkes seconded the resolution. It seemed to him that the reports must be communicated to the bodies. Those documents had been prepared with very great care, and ought to be dealt with as any other documents.

Dr. Andrew Wood did not hold himself bound to admit that there was not a great deal in the reports to which he strongly objected.

Dr. Macnamara objected very strongly to the reports being published. There were several errors which had inadvertently crept into the reports, and he would be sorry that they should be put permanently on record.

Dr. Quain said that the reports would have to be discussed *seriatim*, and there would be an opportunity when they came out of explaining what was wrong.

Professor Turner moved the following amendment:—"That the Reports of the Visitors of Examinations be received, but held for the present as confidential." He sympathised very much with the observations Dr. Storrar had made as to the necessity of avoiding an ill feeling on the part of the visited bodies. Another objection to the reports being entered on the minutes was, that it would be putting those bodies which had borne the first brunt of the visitations in a somewhat invidious position.

The President could not see how they were to discuss a measure publicly which was held as confidential. He wished to know whether it was contemplated to exclude reporters while the reports were being discussed.

Dr. Storrar said that was his view.

Dr. Bennett thought the proper plan would be to word the resolution so that the reports should be taken as read, and then to let them be put as an appendix.

Dr. Humphry suggested it would be better for the reports to be dealt with in the ordinary way, otherwise the visited bodies might think there was something which required to be kept secret, and that there should be opportunity offered for the correction of some mistakes which had crept in.

Dr. Haldane, as representing one of the bodies visited, expressed his concurrence with Dr. Humphry. He thought it was very desirable that the reports of the visitors should be discussed immediately. The Council was not at present responsible for those reports. There might be misapprehension on the part of the examiners, and it was not until the Council had agreed to those reports that sanction was given to them.

Professor Turner's amendment was put, and declared lost.

Sir William Gull then proposed, and Dr. Fleming seconded, the following amendment:—"That the Reports of the Visitations be received, and that they be considered at the next meeting of the Council."

After some discussion, Sir William Gull withdrew his amendment.

The original motion of Dr. Andrew Wood was then carried unanimously.

Dr. Quain moved—"That a committee be appointed to prepare such a report on the Reports of Visitations of Examinations as may best bring before the Council the points of importance contained in these reports." The first object was to bring the reports in the most convenient form before the Council. If discussion were taken indiscriminately on these reports, great confusion would result. The best plan, he thought, would be to give an abstract of the important points. Of course when the reports came before the Council the full report would also be before them, and could be discussed.

Dr. Haldane seconded the resolution.

Dr. Aquilla Smith did not see that the report suggested would be of any advantage.

Several members of the Council having expressed themselves against Dr. Quain's motion, it was withdrawn.

Sir William Gull proposed—"That the Reports of the Visitations of Examinations be considered to-morrow in a committee of the whole house," and he suggested that the members of the Council who had attended the examination should consider it their duty to come forward to give what information they could.

The motion was seconded by Dr. Apjohn.

Dr. Parkes pointed out that the plan suggested by Dr. Quain had worked very well on a former occasion.

Ultimately, Sir William Gull's resolution was put and carried.

Dr. Acland moved—"That copies be obtained of the report of the Committee of the House of Commons on the Adulteration of Food, and that a committee be appointed to consider the bearings of the report on the qualifications in State medicine or in public health instituted by any of the bodies in Schedule (A) of the Medical Act."

Dr. Apjohn having seconded the resolution, it was carried, and Dr. Acland, Dr. Thompson, Professor Turner, Dr. Apjohn, Dr. Stokes, Mr. Quain, Dr. Parkes, Sir Dominic Corrigan, and Mr. Bedford were appointed members of the committee.

Returns from the Medical Department of the Army, dated September 7, 1873, and March 4, 1874, were laid before the Council.

A letter from Dr. J. W. Eastwood, requesting, in the name of the South Durham and Cleveland Medical Society, that the Medical Council would undertake prosecutions under the Act, was read by the Registrar.

Dr. Aquilla Smith thought the question had come before the Council on former occasions, and they had invariably declined to become prosecutors.

The President stated that the Council no doubt were judges of registered persons, if guilty of anything in a professional respect, but they were not judges in the case of unregistered persons.

Dr. Aquilla Smith moved:—"That an extract from the minutes containing a report of prosecutions (vol. i., page 35) be forwarded to Dr. Eastwood for the information of the South Durham and Cleveland Medical Society."

Dr. Acland seconded the resolution, which was carried.

Letters were read by the Registrar from the Assistant-Secretary to the Board of Trade, respecting two registered practitioners who were not allowed to take charge of emigrant ships in consequence of their misconduct. It appeared the practitioners referred to had been found on board emigrant ships in a drunken state and incapable of performing their duties. The matter had been referred by the Board of Trade to the Medical Council.

The President thought the Council could not proceed in any way against the gentlemen referred to unless it was of opinion that there was *primâ facie* evidence of their being guilty of infamous conduct in a professional respect.

Sir William Gull did not think the Council had any power to move in the matter. It was very disgraceful conduct, and they might express their regret at it.

Dr. Bennett was not sure that they had not the power.

Sir Dominic Corrigan moved that it should be entered on the minutes—"That the Registrar read letters from the Assistant-Secretary to the Board of Trade respecting two registered practitioners who were not allowed to take charge of emigrant ships because of their misconduct: Resolved—That the Registrar acknowledge with thanks the receipt of the letters, but that the Council have no power to interfere in the case referred to."

After some discussion, amendments were proposed, which were subsequently withdrawn, and ultimately Sir Dominic Corrigan's resolution was carried.

The Registrar read a letter from Dr. Walter Mackern, complaining of a registered practitioner lending his name illegally to a person unqualified.

On the motion of Dr. Macnamara, seconded by Dr. Leet, a committee was appointed to take Dr. Mackern's letter into consideration.

The proceedings were then adjourned to two o'clock the following day.

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Second Day.—Friday, July 10.

The minutes of the last meeting having been read and confirmed,

Mr. Quain inquired whether there had been any surveyor appointed by the Council to view the new building.

Dr. Bennett replied that, the premises belonging to the Government, it was not in the power of the Council to appoint a surveyor.

The President thought that the proper course would be for Mr. Quain to give notice of a motion on the subject.

The Council then, in accordance with a resolution passed yesterday, proceeded to consider the Reports of Visitations of Examinations and of tables of results of examinations in committee of the whole Council.

The President observed that it was a very serious matter how they set about the work, and their endeavour should be to make it as short as possible. It had been suggested to him that the mode of proceeding should be a motion that the Council should adopt the reports one after the other. His own opinion would be very much against that, because it would involve taking the reports paragraph by paragraph. The reports raised questions of two different kinds. Some matters related only to the particular body visited, but there were other questions of a much more general kind, which would be properly and justly discussed. The suggestion had been made that the members of the Council who took part in those reports should make it their special business, though not to the exclusion of other members, to draw the attention of the Council to such parts of the reports as involved general questions of importance, so that resolutions might be founded upon them. In each case there must be an opportunity for the member of the Council representing the body visited to bring forward any points in which there was any inaccuracy as to fact or any inference that the facts did not justify. It would then be easy for members of the Council to bring forward motions to meet those cases. Take the first case of the Apothecaries' Society. The opinion is expressed that the time allowed for the writing of answers was not sufficient, and there were other instances of a more general kind.

Dr. Andrew Wood moved, and Professor Turner seconded—"That the Council resolve itself into a committee of the whole Council for the consideration of the Reports of Visitations of Examinations."

Sir Dominic Corrigan said they had only inspected eight bodies, and they would therefore be reporting only as to one-half of the total number of bodies. He thought, when taking up so great a subject as this, it would not be right to go into an examination of half of the subject. It would, in his opinion, be better to defer altogether this large subject until they had the reports of the visitations of all the bodies before them. He moved—"That the consideration of the Reports of the Visitations of Examinations be deferred until the visitations are completed and are forwarded to the different licensing bodies for their observations."

Dr. Quain rose to order. A resolution had been carried yesterday that the reports should be considered to-day.

In deference to the suggestion of the President, Sir Dominic Corrigan altered his amendment, and moved—"That the Council should not resolve itself into a committee to consider the Reports of Visitations of Examinations until the visitations are completed and forwarded to the licensing bodies for their observations." He was himself free from prejudice on the subject, because it so happened that the Queen's University had come out in these reports among the very first of examining bodies. He did not think the Council ought to pronounce censure or praise until they had received from the examining bodies their remarks made in reply to the observations of the visitors.

The amendment not having been seconded, Dr. Andrew Wood's motion was carried.

The first report considered was with reference to the Apothecaries' Society, and the report having been taken as read,

Dr. Quain thought it would be proper for him, as one of the visitors, to call the attention of the Council to certain things in reference to this matter. He asked the Council to divest their minds of the feeling to which Sir Dominic Corrigan's observations would give rise. He did not see that this was at all an invidious comparison. He trusted all the reports would be discussed on their merits. He would not occupy the attention of the Council with details of the mode in which the examinations were conducted, but would summarise it by saying they were as satisfactory as they could well be. At page 11 of the report two very important remarks were made; the first of these remarks referred to the want of due preparation on the part of some of the candidates. It was simply painful to see the utter ignorance of the young men who came up for that examination, particularly in anatomy. He might mention an instance of a young man who had passed the preliminary examination of the College of Surgeons, and who had not the slightest idea where the spleen was. He was asked where the cæcum was, and he did not know; and on various other matters he showed great ignorance. Of course he was rejected. Probably the Council might ultimately think it desirable to pass some general resolution, rather than to consider each detail. The next case was on the same page. They were given to understand that the Society was precluded by its Act from testing the knowledge of the candidates in surgery. There was, on the face of this report, a body in England which admitted to their register candidates who were not required to produce any test of a knowledge of one of the most important subjects. That was not the fault of the Society, because they say that under their Act they are not able to examine in surgery. It became almost an imperative duty of the Council to take some steps in

the matter. By its last Act the Apothecaries' Company retains the power of giving a diploma without an examination in surgery. Those were the two important points—the insufficiency of preliminary education, and the still more important one that a body can give a qualification without a knowledge of surgery. He moved—"That a copy of the report of the visitors of the examinations of the Society of Apothecaries be forwarded to the Society for their consideration and remarks."

The resolution was seconded by Dr. Pyle.

Dr. Andrew Wood understood that the Council had been in the habit for years past of sending the recommendations to the visited bodies, and he hardly knew of any instance in which those recommendations had not been at once adopted by those bodies. Therefore he thought they were going exactly in the course which it was their duty to take. The examiners were struck with the lamentable ignorance displayed by those who were candidates; but that was not the fault of the licensing bodies—they were not responsible for the education the young men had received,—but it raised an important point whether it was a right thing that year after year there should be such an enormous amount of rejections, which appeared to be constantly increasing, and whether it might not be possible for the Council to improve the education of the young men who were to become candidates for licences to practise. It would be an improvement if a student should not only bring a certificate of having attended a course of anatomy, or whatever it might be, but that before he got that certificate of attendance he should be obliged to attend the class examinations of that class, and to have shown a certain minimum standard of proficiency in the subject taught. They would not then have the melancholy results which the table of rejections showed. Dr. Quain had said that the Apothecaries' Society should examine in surgery, but they had no power to do so—the fault of that was the present Medical Act. He thought a short Bill might be passed, rendering it impossible for any man to obtain registration in the Medical Register until he should have been examined in all the branches of the profession.

Dr. Thompson asked whether the person who was so deficient in knowledge held any other licences.

Dr. Quain replied that he had passed the first examination of the College of Surgeons two years before.

The President thought it implied no censure on the Apothecaries' Society that an ignorant man came up and was rejected.

Mr. Bradford said, with reference to the examination in surgery, the Act of Parliament of 1815 did not preclude them from examining in surgery. He believed no less than 80 per cent. of the candidates who passed the examination at Apothecaries' Hall became members of the College of Surgeons. That appeared to the Society to render it unnecessary that they should examine in surgery. He was sure if it was thought expedient that the Society of Apothecaries should examine in surgery they would most willingly do so, for it had been their policy throughout to follow the recommendations of the Council.

Dr. Bennett thought it would appear that the Apothecaries' Society had failed to adopt the recommendation of the Council, which called the attention of licensing bodies to the necessity of examining in surgery. If that were the case, he thought Mr. Bradford had made out a strong case against the Apothecaries' Society.

Sir William Gull: Am I to understand Dr. Quain writes this, and that Mr. Bradford says the contrary,—"We are given to understand that the Society is precluded by its Act from testing the knowledge of the candidates in surgery?"

Mr. Quain: The Apothecaries' Act says they shall examine in medicine, and it leaves it there.

Mr. Bradford thought they would come into collision with the College of Surgeons if they attempted to examine in surgery.

Sir William Gull understood Mr. Bradford to say the Apothecaries' Society would examine in surgery if the Council thought it desirable.

Mr. Bradford said the question had not been submitted to the governing body of the Society, but he had no doubt it would be so.

Sir Dominic Corrigan supported the resolution, and said it was not long since he had proposed a similar resolution, which had not met with a seconder. He trusted the reports would be forwarded in the other cases, and that, of course, no judgment would be come to till the answers had been received.

Dr. Aquilla Smith proceeded to criticise the details of some of the questions put to candidates.

Dr. Macnamara rose to a point of order. The motion was that the report be sent to the Apothecaries' Society.

Dr. Quain's motion was then put and carried.

Dr. Aquilla Smith moved—"That the question No. 4, 'What are the symptoms, diagnosis, and treatment of tabes mesenterica?' is not a fit and proper question to be included under the head of midwifery."

Dr. Andrew Wood denied the fact, and the resolution not being seconded, fell to the ground.

Dr. Quain explained that the word "midwifery" included the diseases of women and children.

Dr. Apjohn thought the questions most excellent questions, but they appeared to be of such extent that it would require considerable time and experience to make complete answers to them, particularly the second question,—"What substances are produced by the destructive distillation of coal? How is ammonia separated, and how is coal-gas purified for ordinary use? State the composition of each substance, and give the chemical symbols." He thought that was a question which a great many professors of chemistry could not answer; and he should be satisfied with a very partial answer to such a question. He would suggest that it would be a great deal better to make the questions more practical, and to diminish the scope of the questions. He moved that the attention of the Apothecaries' Society be drawn to the nature of the questions, and that they should consider whether it would not be well to modify the questions, so as to make them more practical and more easily answered.

The President: There is a possible ambiguity in this statement: "The time allowed for answering the whole of each of the preceding sets of questions is about three hours." What is the set of questions? Is the question on chemistry one set?

Dr. Quain: No; the whole thing is to be done in three hours.

Dr. Parkes suggested that a motion of the kind proposed by Dr. Apjohn might very well come on afterwards as a general motion. It applied to most of the bodies. He thought the questions a great deal too difficult for the young men who had to answer them.

The President thought Dr. Parkes's suggestion a very good one, and that the Council would be greatly indebted if any member who had read the papers and seen the nature of the answers would propose resolutions, which would be put on the programme.

Dr. Bennett said a note should be made of these matters, which had reference to all the bodies. He thought it almost impossible for many men of ordinary capacity to answer efficiently the questions he had seen. They were far too elaborate, and he thought that one of the points as to which a note should be made for the passing of some general resolution at the end of their discussion.

Dr. Apjohn withdrew his resolution.

The Registrar read a letter from the solicitor to the Council, to the effect that a registered practitioner who had been summoned in pursuance of section 29 of the Medical Act (1858) to attend for inquiry on Friday, July 10, at three o'clock, had left the country, and that consequently the notice had not been served.

Dr. Bennett suggested that the Registrar should send to his address, and if the letter were returned he might be struck out of the Register on the ground that his address was no longer given on the Register. He understood that the case was a very gross one.

Dr. Andrew Wood thought the safer plan would be to take the advice of the solicitor as to what should be done.

The President did not think it necessary to do more than enter the matter on the minutes.

Sir Dominic Corrigan proposed, and Dr. Storrar seconded—"That the Council having been informed, through their solicitor, that a registered person, who had been summoned to appear before the Council on this day, had shipped for Adelaide, the summons for his attendance could not be served upon him." The man had run away, and there was an end of it.

Dr. Bennett thought, that being the case, he had no right to retain his name on the Register.

Dr. Macnamara said it appeared this gentleman had been guilty of some very gross crime, that he had confessed his crime, and that they ought not to allow him to escape scathless. They had power to remove his name from the Register, and he would move as an amendment—"That the case of the

registered person be referred to the Branch Council of the division of the Kingdom in which he is registered, and that it be investigated, and, if necessary, dealt with in accordance with Section 14 of the Medical Act."

The amendment was seconded by Dr. PARKES.

Sir DOMINIC CORRIGAN thought the amendment could not be put—the Council could not delegate its powers to the Branch Council.

The PRESIDENT reminded Sir Dominic Corrigan that the proceeding suggested by Dr. Macnamara was in accordance with the standing orders of the Council.

After some discussion, in which many members of the Council joined, the amendment was rejected, and Sir Dominic Corrigan's motion was carried.

The Council then proceeded to the consideration of the report on the examination of the Royal Colleges of Physicians and Surgeons of Edinburgh.

Dr. PARKES moved—"That the reports of the visitors of the first and second conjoint examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh, held in July, 1873, be forwarded to the two Royal Colleges for their consideration and remarks." He had a few remarks to make on general questions, but those he deferred for the present.

Dr. APJOHN seconded the resolution, which was carried.

The PRESIDENT inquired whether amongst the general questions Dr. Parkes intended to raise that to which he referred on page 26 and again at page 29, as to the advisability or not of setting three or four questions and asking for answers only to two or three.

Dr. PARKES thought it was a thing which would be better considered by the two Colleges. It seemed to be a matter eminently for them.

Dr. HALDANE thought it desirable that an opinion should be expressed on this point by the Council. In his time the system was adopted of only having three or four questions, to all of which answers were required; but it was found in such very wide subjects as physiology and chemistry that a man might be unfortunately ignorant of the particular questions and be rejected. After due consideration the Colleges came to the opinion that it was better to give a certain latitude—to put more questions, and to allow the candidate to answer a certain number.

Dr. ANDREW WOOD said it must be remembered that the written part of the examination was only one part, and they must apportion the examination to the time at command. At the oral examination no limitation was put to the questions, and no option was given to the student as to which he should answer or which he should not. The Colleges would give every consideration to what had been said; they had no desire but to have the examination on such a foundation as to secure that no incompetent man should enter the profession. He thought on reading over the reports which had been made, the visitors would say that they arrived at a time when there happened to be a most unfortunate batch of candidates who showed a most deplorable ignorance on the subjects in which they were examined, and he would also add that those gentlemen met with condign punishment. He called the attention of the Council to the fact that he believed the greater part, if not all, were candidates from other parts of the country, and they were not to judge of the Edinburgh school by the answers which were given. He thought it necessary to state that distinctly.

Dr. SHARPEY thought it desirable for Dr. Andrew Wood to obtain a statement of the sources from which the candidates obtained their certificates. It was impossible to teach such men if they came with an utter want of knowledge.

Dr. ANDREW WOOD admitted there were a number of errors in the spelling, but he was certain that none of those men were examined at the preliminary examination of the Colleges, which was a most stringent examination. At the last examination in Latin, out of twenty-two or twenty-three only six passed. That showed that they were not lenient. It should not be put down that Scotchmen are such bad spellers. Dr. Parkes would no doubt say that he saw no undue leniency shown to the candidates.

Dr. BENNETT referred to another question of considerable importance. He should be glad if Dr. Andrew Wood would be good enough to obtain the number of candidates rejected, and where they came from, where they had their preliminary education, and where they had their professional examination before they came up for examination in Edinburgh. He also suggested that the Irish members of the Council should do the same.

The PRESIDENT said his own feeling was that, though the system pursued was a good one, it was not the best. The principle of setting four questions in anatomy and physiology, of which three were to be answered and not more, and in chemistry three questions, of which two were to be answered and not more, was an erroneous mode of setting the examination papers, because the advantage of knowing what the man was ignorant of was lost. If they set four questions with sufficient time for the man to answer those four questions, then if he answered only three of them they would know that he was ignorant of the fourth. He agreed that the questions should not be too few because the candidate might have been very fortunate or unfortunate as to the questions put. If many questions were put, and a sufficient time were allowed for answering all the questions, then the examiners would ascertain not only what a man knew, but what he did not know.

Dr. ANDREW WOOD presumed the object of putting four questions and answering three only was that the examiners considered that the time allowed was only sufficient for three.

Mr. QUAIN said if the candidate left out the answer to one question it did not follow that he was not acquainted with it. A boy of eighteen could not make an exact calculation as to the time required. He had examined many young men, sometimes not less than three times a week, and he found them never able to calculate the time. They sometimes spent a great deal of time in answering one question, and found at the end they had not the time to do more, though they were really acquainted with it, and could have answered. It must not be supposed that they were ignorant because they did not answer.

Professor TURNER thought it very important that in setting examination papers the subjects should not be mixed up together—he gathered that that was done. For instance, with reference to the Apothecaries' Society it was stated that a certain number of hours included an examination in chemistry and materia medica, and then again in midwifery and forensic medicine during a similar allotted period. In this manner the candidate's mind did not become sufficiently cleared on one subject before he had to go into another. He thought a certain time should be allowed to answer certain questions, that then the candidate should be allowed to go out for a short time, and then set to work on a fresh subject. By that means candidates would preserve a proper balance of time to be given to each subject. Another question which had cropped up was whether a candidate should have a certain latitude allowed him as regards the number of questions which he might answer. He thought it very important that in framing an examination paper there should be a certain latitude allowed to a candidate, and when a candidate failed to answer one question and answered three he did not think the examiners had a right to assume that the candidate was ignorant of the subject of the question he did not answer. If a man were well posted in certain parts, naturally he would select those parts on which he felt himself best informed, and he might go on writing till he had exhausted his time. The selection of questions gave the examiner an opportunity of increasing the range of the examination.

Dr. THOMSON had examined very many classes, and had tried a variety of ways. He would not like to be tied to any mode of proceeding. He pointed out that if the number of questions proposed be answered during the time, that would be a sufficient test of the knowledge of the candidate. That was the main point to be secured. He would not say that in many cases a written answer to one or two questions would be sufficient, but if in the opinion of the examining board three or four questions were a sufficient test of the qualifications of the candidates, then they ought to be satisfied, whether a greater number of questions had been proposed or not. He had pursued both plans, and found advantages in both. On the whole, he thought it more precise and more simple to limit the number of questions.

Dr. SHARPEY had observed that the candidates varied very much in ability; some answered the questions elaborately with great care and detail, and others again more concisely. By setting a moderate number of questions and insisting on their giving answers, it gave an opportunity for the different kinds of minds to show what they were made of. It might be said you must answer a certain number.

Dr. HUMPHRY's feeling was, that this was a question on

which no opinion of the Council should be given. Professor Turner spoke of latitude to the student, but he thought a certain amount of latitude should be allowed to the examiners. The Council by a decided opinion would be rather committing itself in a direction in which he thought it better that they should not lay down specific rules. Having visited the University of Glasgow, he had come to the conclusion that it was not a point of very great importance; he saw advantages on both sides.

Dr. Storrar said he could not speak from his own experience as an examiner, but only from a good deal of experience as a superintendent and an observer of examinations, and as one who knew the views of examiners on the subject. In the University of London examinations, as well as in the Civil Service examinations, the practice was to set a greater number of questions than were expected to be answered, and then to limit the number that were to be answered. Say, for instance, six are to be answered: nine are set, and a heading put to the paper that not more than six of those questions are to be answered. The reason is this: Superficial men who did not know any question thoroughly would take refuge in a sort of general sketch of all the questions, in such a way as to perplex the examiner, and make it exceedingly difficult for the examiner really to discover what was the amount of precise information that the candidate had on any one subject. He did not argue for it, but he simply mentioned it in order to show that there was an argument for that side of the question.

Dr. Aquilla Smith agreed with the observations made by Professor Turner. He had a great objection to the practice of setting four questions and not permitting the candidate to answer more than three. The practical result was that it was quite unnecessary to set more than three questions, for a curious result manifested itself; as stated by the examiners, "It will be observed on reading the answers that no one attempted to answer the fourth question."

Dr. Fleming did not think it was a question so much of the number as of the kind of questions. If they were such as to test the candidate's knowledge, that was sufficient.

Dr. Parkes did not think that he and his colleagues attached much importance to the point which had been so much discussed. They were very much struck by the fact that the fourth question was altogether avoided. The other questions noticed in the report appeared to him to be far more important. One was the extremely short time given in all the subjects, in the second examination specially. Occasionally similar questions were put in both written and oral examinations, owing to the fact that the same examiners did not conduct the inquiry.

The next report considered was with reference to the reports on the examinations for the single qualification of the Royal College of Surgeons of Edinburgh.

Dr. Bennett confirmed the statement made by others as to the extreme inefficiency of the candidates. He moved—"That the reports of the visitors of examinations for the single qualification of the Royal Colleges of Physicians and Surgeons of Edinburgh be forwarded to those bodies for their consideration and remarks."

Dr. Aquilla Smith thought the prescriptions written out by the candidates betrayed great ignorance of the Latin language.

The President observed that the report did not state whether the candidates who gave those answers were passed or rejected.

Dr. Haldane could not at the moment say the results of the examinations, but he could easily get the results. With reference to the statement of Dr. Bennett, that the College of Physicians grants its licences without examination in surgery, this was perfectly true, but would very soon be rectified. The College of Physicians, till after the passing of the Medical Act, was not a licensing body. In connexion with the College of Physicians a conjoint examination was necessitated, the College of Surgeons being answerable for the surgical part, and the College of Physicians for the medical part. Latterly, a very few students—men possessing no qualification—had presented themselves, and he was sorry to see that the College had not instituted an examination in surgery; but he could say, as to the College of Physicians, that when the regulations come up for revision—which will be in the first week in August—the deficiency would be supplied and the examiners would be appointed for the examination of those candidates who have not already passed an examination in surgery.

Mr. Quain having seconded the resolution, it was carried.

Dr. Andrew Wood pointed out that at page 76 there was a note—"Answers to these questions we did not receive." He was anxious that no slur should rest upon the College he represented, as they had not refused to give up the answers.

Dr. Bennett said most positively that the absence of the answers did not arise from their having been refused, but they were not among the papers which they had in their possession when they came to draw up their report, and he did not think it a matter of such importance as to write for them. He was quite willing to take the whole blame upon himself of their not being printed. He did not believe it was from any carelessness on the part of the Registrar.

Dr. Andrew Wood expressed his satisfaction with Dr. Bennett's explanation. He called the attention of the Council to the fact that the visitors had not mentioned whether the candidates were rejected or passed.

The Council then proceeded to consider the report on the second or pass conjoint examination of the Faculties of Physicians and Surgeons of Glasgow and of the Royal College of Physicians of Edinburgh.

Dr. Parkes moved, and Dr. Arjohn seconded—"That the reports of the visitors of the first and second conjoint examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh, held in July, 1873, be forwarded to the two Royal Colleges for their consideration and remarks."

The resolution was carried.

Dr. Fleming called attention to a passage on page 83, that "a good deal of time was taken up by only two candidates, and we hardly know how the examiners could have carried out the clinical examination on the plan followed had there been ten or twenty candidates instead of two." He also called attention to a passage at page 84:—"In the points noted above, the examination was not, in our opinion, so good a test as it should have been; but if the details we have referred to are altered, we are of opinion that (if equally good examiners always act, and act with equal care as in the examination we witnessed) the object aimed at by the examination must be attained." This, he thought, conveyed some imputation upon the competency of the examiners.

Sir William Gull: I think Dr. Fleming is mistaken. It is really a compliment.

Sir Dominic Corrigan thought the "if" implied that they did, as a general practice, let in inefficient men to act as examiners.

Dr. Parkes admitted the paragraph was not inserted without an intention, and he was glad Dr. Fleming had alluded to it. At the same time, he entirely disclaimed the inferences which had been put upon it. It was intended to call the attention of the examiners to the mode in which the examiners were chosen. They elected six examiners from among the resident Fellows only, and it was for the Council to say that that was proper. It was a very small body: it excluded all the other practitioners in Glasgow who did not belong to the Faculty.

Dr. Fleming inquired whether there was any body which took its examiners from among the Fellows.

Dr. Haldane said the College of Physicians of Edinburgh did. In the case of surgery he said they should probably elect Fellows of the College of Surgeons. More than once, in the case of anatomy and physiology, they had chosen examiners not of their own college.

Sir Dominic Corrigan thought the paragraph contained an inuendo that among the ninety Fellows they could not possibly find a Fellow who was fit to examine. He thought the London University the most perfect of all, and he was borne out by the fact that the first positions in Ireland were in many cases held by men who had undergone the examination of the London University. In the other universities who were the examiners? Men who had been thirty or forty years professors of the subject, and they examined their own pupils. He thought they ought to postpone the question as to the Faculty of Physicians and Surgeons of Glasgow, which was at present put under heavy censure, until they had the returns from all the licensing bodies.

The President said he thought the censure was relieved by the fact that they had at Glasgow as many as ninety Fellows to choose from.

Dr. Humphry did not think when any body selected examiners out of its own body it conveyed an imputation on its own members. There was no reason why the members of its own body should be considered inefficient. He took a larger view—namely, that it was desirable to take examinations

from without, and not that examinations in their own university should be conducted only by men who had undergone examination in that university, but men who had undergone examinations elsewhere, so as to give a larger sphere of character to the examination. That might have been Dr. Parkes's meaning. That was a matter often discussed in the University of Cambridge. It did not imply that their own men were incompetent when they appointed members from elsewhere.

Dr. Fleming observed that it was not the Faculty alone, but it was the Faculty and the Royal College of Physicians of Edinburgh. The examiners were appointed by both.

Sir William Gull would like it to go forth to all the examining bodies in the kingdom that it is an extremely disadvantageous thing where there were over 120 Fellows that the examiners should be selected from those who were the teachers in that particular school. Nor did he believe that out of any number of Fellows of that kind they could select all they wanted. He belonged to the University of London for many years, and one of the most difficult things was to select efficient examiners, and they constantly had to go out of their own body to select the most distinguished person they could. It was no reflection on the Fellows of the College that they were not fit to be examiners. They might be superior as teachers and practitioners, but very bad examiners. The same was the case at the public schools. The teachers at Eton were not the men who had been educated at Eton.

Dr. Storrar was strongly convinced that the best examiners were to be found amongst the experienced and successful teachers. There was great art in examination, and it was also a great gift. In the University of London it was always considered an extra recommendation that a man had been for a long series of years a successful teacher. It occasionally happened that an examiner had one of his own pupils before him. The principle they adopted was the duplication of examinerships, taking care that the two examiners should come from different schools. Supposing the subject was anatomy, if one of the examiners discovered in the candidate a pupil of his own he handed over the examination to his colleague.

Mr. Quain gave his testimony to the same effect. He believed nobody was competent to examine who had not studied examination as an art.

Professor Turner said a very important question had been raised. Dr. Storrar had spoken with reference to the relation of teachers to examinations. He understood that Dr. Storrar had handed in a distinct motion with reference to bringing that forward for discussion, so that any further consideration probably should be reserved.

The report of the visitors appointed to inspect the first and second examinations of candidates for the diploma of the Faculty of Physicians and Surgeons of Glasgow was next taken into consideration.

Dr. Aquilla Smith moved, and Sir William Gull seconded, the following resolution:—"That the report of the visitors to inspect the first and second examinations of candidates for the diploma of the Faculty of Physicians and Surgeons of Glasgow be forwarded to the Faculty for their consideration and remarks."

Dr. Fleming desired to mention that the examinations of the Faculty are held on the second Tuesday in every month. He thought it was too often. Most unfortunately the second Tuesday of August, 1873, happened to be the twelfth day of the month, and they were all aware that if there was one amusement that a Scotchman loved above all others it was grouse-shooting. That accounted for the mention in some cases in the report that the examiner was absent. They would receive all the suggestions of the visitors in good part. He called attention to the following sentence in the report:—"Still less was there any attempt made to test the candidate's knowledge of practical surgery by the performance of operations on the dead subject."

Sir William Gull suggested that it would be a great advantage to have Englishmen to examine in Scotland, in which case they would not be affected by August 12. Glasgow was so large a city that the science and art of medicine and surgery must have advanced greatly if there were not sufficient dead bodies to enable the students to practise examinations upon them.

Dr. Arjohn said the examination seemed to be an excellent one, and the answers very good indeed.

Mr. Quain called attention to one paragraph in the report—"In reviewing this examination, it appears to us that the examination in clinical medicine might be somewhat extended with advantage. A written report of two or more cases by the candidate would assist the examiner in forming his judgment, as it is difficult to avoid putting leading questions to the candidate when the examiner aids, as it were, in the examination of the patient. More specimens should be shown under the microscope, and pathological specimens might be exhibited. The examination in clinical surgery was more extended, but we noticed that no instruments were exhibited to the candidate, that there was no practical examination on bandaging, nor on the management of fractures and dislocations, no pathological specimens were shown, and still less was there any attempt made to test the candidate's knowledge of practical surgery by the performance of operations on the dead subject." His belief was that they required too much. This was only a minimum examination, and it was to enable them to judge whether a man was fit to enter on the practice of the profession. It was not for the higher positions in medicine or surgery, but it was for the ordinary practitioner; and to require from him a high standard of knowledge in anatomy, physiology, and chemistry, and a thorough practical knowledge of anatomy, physiology, and chemistry, at the end of his second session was unreasonable. It was not to be attained by students of ordinary energy and ability, and it was for such that the examinations should be framed. He regretted that such a passage as that should be published. He knew that with the College of Surgeons of London the matter stood thus: those who appeared at the first examination were one-third more numerous than those who appeared at the last examination. At that examination one-third of the students were rejected. Those who appeared at the final examination were never more than two-thirds of those who appeared in the first examination. Thus between the first examination, at the end of the second session, and the end of the fourth session one-third dropped out properly, because they were rejected. Now, was it important that they should drop out? Some years ago he had occasion to go into the subject and to get returns to ascertain what was the proportion at different periods of the medical men of the country in number to the population. He found that for thirty years—from 1830 to 1860 or 1865—the number of medical men by such returns as he could get had not increased, but in that period the population of England and Wales had increased very much—in 1831 it was 13,000,000 odd, and in 1861 it was 20,000,000. Of course, if medical men had not increased in number, they were relatively much fewer in proportion to the population. There was another fact he wished to lay before the Council. He had asked some friends at Guy's Hospital, and he ascertained that the people generally—that is, artisans, the lowest class of tradesmen, people keeping shops and doing business and having a fair income—could not get the attendance of the practitioners of the district. The practitioners were elevated above them in practice, employed by people who are more wealthy, and people in humble circumstances were obliged to resort to the parish doctor, to the dispensary, and to the hospital. He spoke lately to some friends of his in different parts of the country in large towns, and they told him the same thing—that they were too busily employed with persons above them, so that such people are obliged to resort to a form of charitable attendance. He believed that was not a good system. The result would be that those people attended in that way lost their independence of feeling; they were degraded by seeking charity in that manner; and he thought they ought to be very cautious of excluding such large numbers from the profession as was certainly done by an extremely difficult examination, and by requiring a high degree of practical knowledge in elementary scientific subjects at an early period of the study, and so shutting them out of the profession. He did not intend to propose any motion, but he was satisfied that injury was done. Dr. Parkes had said the questions were over the heads of the candidates, and Dr. Bennett said the questions were such that they could not answer efficiently. He thought it worth the while of the Council to take care that, while the questions were sufficient and practical, they were not such as to go in excess of that, or such questions as would exclude men of moderate abilities by too high an examination at an early period. His observations did not refer to the gentlemen who wrote this report; they were intended to be as general as possible.

Adjourned till to-morrow at one o'clock.

THIRD DAY.—SATURDAY, JULY 11.

The Council reassembled at one o'clock, and, after the usual preliminary business, proceeded with the discussion on the reports of the visitors appointed to inspect the first and second examinations of candidates for the diploma of the Faculty of Physicians and Surgeons of Glasgow.

Dr. MACNAMARA said that the Faculty of Physicians and Surgeons was more particularly a faculty of surgeons, and it behoved them to see that the requirements were as nearly as possible up to those of other surgical examinations. His predecessor (Mr. Hargrave) had laid great stress upon the importance of witnessing how a student handles his scalpel. In former times, within his own experience, it had happened that the "coachers" or "grinders" were so successful that gentlemen who scarcely ever took off their gloves in the dissecting-room were able to answer the questions put by the examining board. Consequently, they were compelled to have proof of the candidate's real knowledge by seeing how he handled the dead subject. It was wrong to certify that a man was a chirurgeon of whose practical skill the examiners knew nothing. He understood that it was said there were difficulties in procuring dead subjects, but he could not understand why; because, though the physicians of Glasgow no doubt were able to combat disease, no physician was able to prevent old people dying. Much had been said about education going over the heads of the students. That might be the case, but it was a great mistake in examining bodies to set questions which were not intended to test the pupil, and which were not expected to be even attempted to answer, but were proposed with the sole view of showing the superiority of the examination. Of course it was but natural that the student would choose the easy ones. As to the very inferior character of the answers given, no one had yet touched upon the cause of that evil. The examining bodies were by no means responsible for the fact that an ill-prepared student presented himself for examination, but it arose from the fact that a student rejected by one body could—*hey, presto!*—go to another; and until it was provided that a candidate rejected by one body should not be able by that night's mail to go to another body and procure a qualification, they could not accomplish their object. As a remarkable example, he would state that a gentleman presented himself at the College of Surgeons to which he (Dr. Macnamara) belonged, and after having been solemnly and publicly examined on two separate days, the examiners, with great regret, remitted him to his studies. In six months' time he presented himself again, and, notwithstanding the feeling in the mind of examiners that they should be as lenient as possible with a man who presented himself a second time, he was again rejected. On a third occasion he presented himself, and on December 1 (he would not mention the year, because he did not wish to give a clue to the gentleman's name) he was a third time remitted to his studies, but in the same month he got from another body both a surgical and a medical qualification.

Dr. QUAIN asked where the qualifications were obtained, and urged that the Council had a right to know the name of the body who admitted a person charged with inefficiency.

Dr. MACNAMARA replied that he should like to have time to consider, and if the Council thought he ought to disclose the name of the body he would do so, though he would rather not, because he did not wish to gibbet particular bodies, but to amend these bad ways. Another gentleman who was rejected by the College of Surgeons in Ireland went forthwith to another body (not the same as that concerned in the previous example), and with such success that his name appeared on the Register as a licentiate of the body which examined him. In conclusion, he expressed a hope that practical examinations should be the rule and not the exception.

Sir DOMINIC CORRIGAN mentioned the case of a candidate rejected by an Irish examining body for his failure to perform some extraordinary operation; but he received the qualification from a Scotch body, and had since discharged his professional duties in the most satisfactory manner.

Dr. ANDREW WOOD thought that Dr. Macnamara seemed to claim infallibility for his own body. They were not to be told that because the Irish College of Surgeons were unable to appreciate the merits of a man they were not to take up the case. The man to whom Sir Dominic referred had the offer of a professional post, and was perfectly competent, but he was rejected upon a very absurd question by the College of Surgeons of Ireland. Was such a man to be precluded from going where his real worth would be recognised?

Dr. A. SMITH added that the man in question obtained the highest marks at the M.B. examination.

Dr. PARKES thought that no man rejected by one body should have the power to go up to another licensing body until a certain time had passed.

The PRESIDENT said the matter had been some time since debated in the Council, and it was felt that it was rather like gibbeting a man to send his name to all the other bodies.

Dr. STORRAR recollected perfectly well the debate; and in addition to what was stated by the President, it was the opinion of the Council that if a man presented himself before a certain body for examination, having complied with all the previous conditions of the examination, it was for that body to determine for itself whether the candidate was qualified, and that it ought not, in fact, to be guided by any conduct on the part of another body.

Sir DOMINIC CORRIGAN thought it unfair to send the names of rejected candidates to all the licensing bodies, because a man might be rejected under accidental circumstances; and if such a plan were adopted they would be sinking themselves to the level of insurance companies, which got confidential certificates from medical men as to the condition of proposers for insurance, which, in case of rejection, were forthwith sent to every company in the United Kingdom—a most disgraceful proceeding. Every case that came before a licensing body should come on its own merits.

Dr. FLEMING stated that he should bring the subject of requiring candidates to perform operations on a dead body before the Faculty.

UNIVERSITY OF GLASGOW.

Dr. QUAIN moved—"That a copy of the reports of the visitors to the several examinations of the University of Glasgow be forwarded to the University for its consideration and remarks."

Dr. HUMPHRY, in seconding this, wished to correct a figure on page 116—45 for 40—so that the passage would read, "In some instances, however, a deficiency (provided it is not below forty-five) in one subject is allowed to be compensated for by a higher number of marks in another subject," etc. Upon the question of the award by figures, what they meant to convey was that, supposing three questions were asked, 100 being the maximum and fifty the minimum of marks, the minimum would be the half of the number of marks given in respect of the three questions.

Dr. THOMSON explained that fifty was the pass mark; anything above that meant "worthy of praise," as being better than the pass mark. Therefore it seemed to him that two matters were confused in the words of the report—"Still, as the previous rule reduces the requirement to the answering of one-half of these questions, and those necessarily simple ones, in any subject, we think it better that the number of questions, and the time allowed for answering them, should be increased." The number of questions was not there taken into account. It was merely the examiner's judgment of the whole answers in that particular part of the examination. As to the visitors, he hoped the Council would not arbitrarily change them, because he thought it of importance that they should have an opportunity of comparing the different examinations with one another. The business of examination was far more difficult than that of teaching, and excellence in it could only be attained after long practice; but, having been engaged both in teaching and examining for a long time, he did not find himself indisposed still to learn from the suggestions of the visitors. As to making dissections a part of the examination, it was adopted in a great measure. From time to time he dissected a part, making notes and exposing parts as rapidly as he could, and examining the candidates on the parts exposed. It might be said that the candidate did not himself dissect or handle the knife; but in answer to that it should be remembered that they were perfectly acquainted with the dissections of all those students; therefore, what was required in the examination was to fix in the examiner's own mind the rate at which the student's knowledge should be accounted, rather than practically to test their dissecting. There were very great difficulties in bringing about a thoroughly practical examination on anatomy during such examinations; it must be done by some arrangement which would not interrupt the ordinary course of an examination where a very large number of persons were examined together. There was an abundant supply of

materials for such practical examinations, and therefore he hoped that in some way the suggestions of the visitors would be carried out, as also the suggestions relating to anatomy and chemistry. It was perfectly obvious that there had lately been immense progress made in those subjects, and therefore those engaged in teaching and examining must not only keep their attention alive to the progress that is being made in science, but must also be quite capable of taking advantage of the progress and making the most of it. Speaking for his colleagues and himself, he would assure the Council of their great desire to have such an examination as would promote the object they all had in view—namely, that no one should enter the profession without sufficient knowledge and skill; and they would do their best to raise the standard of medical education.

Professor Turner called attention to a passage in the report stating that no examination indicating a higher standard of knowledge than that for the M.B. examination was passed before taking the degree of M.D. The whole paragraph was constructed so as to make that remark applicable not only to Glasgow, but to the universities of Scotland. Certainly, it was not so in Edinburgh, for that university required that the candidate for M.D. should present an original thesis, which was made the subject of examination. It was often stated that examinations were so conducted that there was no power at all for calling forth any originality on the part of the candidate, but the examinations were the mere records of a cram which a student had gone through in preparing for the examination. He conceived that, when a candidate was called upon to produce an original thesis containing the results of his own observations, it was one of the most important features that could be introduced into the examination system, because it enabled a candidate who had in him the ability to do and search out for himself to show his examiners that he had done so. It by no means followed that the presentation of a thesis was sufficient to enable a man to be promoted to the degree, for in 1872 out of twenty-one candidates who presented themselves for the M.D. degree, four were rejected in consequence of their theses being insufficient; and in 1873, four out of twenty-eight were rejected for the same reason. The University of Glasgow followed the same plan, and, out of fifteen who presented themselves in 1873, four were rejected. So that the paragraph in the report was scarcely correct, and he thought it would require some modification. Probably the visitors' attention was not directed to that point. He objected also to the statement in the report that the honorary title was "bestowed when a comparatively low standard only has been reached," as being incorrect. The examination was thorough and practical in every part of it.

The President said it was quite clear that 50 per cent. in the University of Glasgow meant an entirely different thing from what it meant in Dublin or Cambridge. As he understood it, the candidate at Glasgow was desired to answer only four out of five questions, and then the examiner exercised a sort of general judgment as to what percentage of knowledge the man possessed in medicine. That might possibly be with judicious Scotchmen a better method than the English method, but it did not seem to admit of the same precision.

Sir William Gull opposed the numerical system. One of the questions in the examination papers of the University of Glasgow was, "Distinguish congestion from inflammation." Who could say whether the answer was worth seventy-five or fifty marks? Another question was, "With what object are emetics employed, in what circumstances are they contra-indicated, and what evils are they liable to produce?" Who was to say with what object they are employed? The numbers given for the answer would depend upon the prejudice of the examiner. Again, if the question were asked, What is the treatment of typhoid fever? in proportion as the student was educated and the examiner ignorant, he would get nothing. He did not think it possible to lay down a standard of figures. One of the best men he ever educated at Guy's Hospital was placed at the bedside of a patient to examine the case. He was allowed half an hour to write out a clinical history, and one hour to write his comments upon it. The case was stated as one of hysterical paralysis. He wrote his history and comments most carefully, and made his diagnosis most perfectly, yet he was put into the second class simply because of the ignorance of his examiner.

Dr. Andrew Wood called attention to the fact that the Society of Apothecaries used the terms "*Optime bene*," "*Satis bene*," "*Vix satis bene*," and "*Male*," which were quite as near an approximation to the estimation of a candidate's answering as if they were to take 100 and 50 as their maximum and minimum standards. As a matter of fact the numerical standard had to be translated into a written one. The bodies should, however, be left to adopt their own method of judging a candidate's qualifications.

The resolution was then carried.

### Royal College of Surgeons in Ireland.

Dr. A. Smith moved, and Professor Turner seconded—"That the reports of visitations of the examinations for 'letters testimonial' of the Royal College of Surgeons in Ireland be forwarded to that College for its consideration and remarks."

Dr. Macnamara, after paying a tribute to the courtesy of the visitors, said he wished to make a few explanations. The visitors reported that upon their arrival they found that the examination in dissection had taken place the previous day. The fact was that the examiners had completely forgotten that there was going to be a visitation. A more serious point was the refusal of the examiners to give the visitors a copy of the answers of a successful candidate. The Secretary wrote the following letter to the visitors:—"I am directed by the President and Council to inform you that they regret they cannot comply with the request contained in your letter of the 13th inst., inasmuch as it is the practice in this College to destroy the candidates' papers as soon as the examiner has read them." That had been the practice for years. In the case of the examination for letters testimonial, the examiner tore up the papers and threw them aside; and in the examination for the Fellowship the written answers were preserved for one year. There was an *imperium in imperio* in the College. The examiners had to conduct the examinations under rules framed by the Council, and the Council had ruled that these papers should be destroyed. Consequently, the examiners had no option in the matter. Then the report went on to state—"At the second *vivâ voce* examination, on January 27, we gave verbal notice to the examiners that we should ask for the written answers, and at the same time requested that the papers might be preserved. Our application was not acceded to, and before we left the hall we placed in the hands of the Registrar a formal letter, addressed by us to the President and Fellows." The Registrar's reply was—"I beg leave to inform you, in reply to your letter of the 27th ult., that the President and Council of this College will afford every facility to the visitors of the General Medical Council to inspect the written answers to examination questions at the time of the examination; but it has not been usual in the College to preserve these papers, or submit them to subsequent inspection." The Council, whether rightly or wrongly, were not prepared to change that which had been from time immemorial the usage of the College; but it was possible that, in deference to the opinion of the Council, they might see fit to reconsider their practice.

Dr. Andrew Wood was very glad to gather from Dr. Macnamara's concluding words that the Irish College of Surgeons—that infallible body who alone were capable of judging of the qualifications of men—had resolved no longer to be recalcitrant, because he thought it was not fair to other bodies that the candidates' answers should be printed with all their imperfections, whilst an Irish college might say—"You may come and inspect our papers, but we will not preserve them because our usage has been not to preserve them." The custom would be more honoured in the breach than in the observance, and the sooner the Irish College got quit of the habit of destroying papers after the examination had taken place, the better. He begged to call attention to a more serious complaint of the visitors, viz.:—"We felt that we ought not only to hear the answers read over by the candidate or the examiner, when only fifteen minutes is allowed both for considering their value, and for conducting the *vivâ voce* examination of each candidate," etc. If this meant that the oral examination of the candidate in anatomy, physiology, or any other subject only lasted during the small portion of the fifteen minutes that remained after the examiners had considered the written answers, and that that was the whole time consumed in the examination of a gentleman who was to obtain the immaculate diploma of the Royal College of Surgeons, it was a very startling thing.

Sir William Gull thought that this was the most serious report which had come before them. The whole of the examination from beginning to end was as bad as could be. He then went through several passages, commenting upon them, and concluded by saying that he did not think that ever before had anything been brought to the attention of a council of medical

men which so painfully showed the utter paltriness of an examination. Either the report was written in an extravagant way, or the examination was extravagantly imperfect. Feeling that it was something that called for special notice on the part of the Council, he moved as an amendment—"That the Council has had its attention drawn to the many sources of imperfection in the examinations conducted for letters testimonial of the Royal College of Surgeons in Ireland, and trusts that the accompanying reports of the visitors at those examinations will receive serious attention on the part of the authorities of the Royal College; and that in any future visitation the written papers of the candidates may be preserved and submitted without restriction to the visitors."

Dr. PARKES seconded this.

Dr. A. SMITH, referring to the last words of Sir William Gull, could only say that Mr. Power and himself were scrupulous to confine themselves to matters of fact. Each of them took notes independently of the other, and wrote out separate reports, the result of which was what was now before the Council.

Dr. MACNAMARA complained that Sir William Gull had taken no notice of a most important passage in the report, which came between two passages, which he read—"In conclusion, we may remark that the good points of this examination are sufficiently obvious. It combines, in a very appropriate and advantageous manner, a written, an oral, a clinical, and a practical examination, and, if efficiently conducted, it is difficult to conceive that any candidate could pass who had not acquired a thorough knowledge of the foundations of professional attainments." Whatever could be said against the College had been put very forcibly; whatever told in its favour was suppressed.

The amendment was then put, and carried by twelve to two.

Upon being put as a substantive motion, Sir WILLIAM GULL moved, and Dr. PARKES seconded, as an amendment—"That the report of the visitors on the examinations of the Royal College of Surgeons of Ireland be forwarded to the College for its consideration and remarks. The Council has had its attention drawn to the many sources of imperfections in the examinations, and trusts that the accompanying reports of the visitors will receive serious consideration on the part of the authorities of the Royal College, and that in any future visitation the written papers of the candidates may be preserved and submitted without restriction to the visitors for their perusal."

Sir DOMINIC CORRIGAN said that the proposal was one which was against the commonest principle of British law—that no man should be condemned unheard.

Dr. A. SMITH also thought it would be unfair to send such a censure down.

Sir WILLIAM GULL asked the Council to remember that they were not condemning anybody. If they were not to proceed except on the strictest legal proceedings, how were they to give their judgment on any body? Were they to summon all the authorities of all the bodies and bring in counsel? Such a course would be an insult to the common understanding of mankind.

The amendment was put, and carried by 13 to 3, and was afterwards carried as a substantive motion.

The Council then adjourned.

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FOURTH DAY.—MONDAY, JUNE 13.

The Council reassembled at two o'clock, and proceeded to consider

THE RETURNS FROM THE MEDICAL DEPARTMENT OF THE ARMY, DATED RESPECTIVELY SEPT. 8, 1873, AND MARCH 4, 1874.

Dr. APJOHN moved, and Dr. PARKES seconded—"That the returns from the Army Medical Department be entered on the minutes, and that the thanks of the Council be given to the Director-General for his courtesy in forwarding the returns."

Dr. ANDREW WOOD called attention to the state of matters as they now stood compared with what they were five or six years ago, and said that it could no longer be urged that they were not advancing without the necessity of legislation.

The resolution was carried.

REPORT OF COMMITTEE ON LETTER OF DR. MACKERN.

This report, which had relation to the proceedings of a certain quack, was read, and upon the motion of Dr. MACNAMARA, seconded by Dr. STORRAR, was entered on the minutes. It is as follows:—

The Committee having looked into the case referred to in Dr. Mackern's letter, have to state to the Council that, though Dr. Mackern's letter is addressed to the President and members of the General Council, it refers to a matter which, in compliance with Standing Order of the Council (VIII.—1), ought "to be investigated in the first instance by the Branch Council of that part of the kingdom in which the person whose name is proposed to be removed from the Register may reside." The Committee therefore recommend that Dr. Mackern's letter be referred to the Branch Council for England, and that Dr. Mackern be informed that this step has been taken.

On the motion of Dr. STORRAR, seconded by Dr. ANDREW WOOD, it was agreed—"That the correspondence with Dr. Mackern and Dr. Dawson be referred to the Branch Council for England."

UNIVERSITY OF LONDON.

The following letters from the Registrar of the University of London and the Home Secretary were read:—

University of London, Burlington-gardens, W., July 7, 1874.

Dear Sir,—I am directed by the Senate of the University of London to forward to you the accompanying copy of a letter from the Home Secretary, from which it will be seen that the University will now be enabled fully to co-operate in the scheme of Conjoint Medical Examination, which has been approved by the Medical Council.

I remain, dear Sir, yours faithfully,

Dr. Francis Hawkins. (Signed) WILLIAM B. CARPENTER.

[Copy.] Whitehall, 29th June, 1874.

Sir,—I have the honour to acknowledge the receipt of your letter of the 18th instant, and to inform you that I approve of the following resolution of the Senate of the University of London, viz.:—"That henceforth no candidate, unless he have passed the Preliminary Scientific (M.B.) Examination before the final adoption of the scheme of Conjoint Medical Examinations, shall be admitted to the second M.B. Examination of the University of London until he shall have passed the Final Examination of the Conjoint Board."

I have the honour to be, Sir, your obedient servant,

(Signed) RICHD. ASSHETON CROSS.

The Registrar of the University of London.

Dr. STORRAR moved—"That these letters be entered on the minutes." He said the Council would remember that the University of London had entered very earnestly into a scheme for securing a general Act enabling all the bodies represented in the Council to take a part, if they desired it, in the conjoint examinations. In March, 1873, he stated to the Council that the arrangements for a Bill had been proposed by the University and approved by the Home Office, and that all their efforts were rendered abortive by the interference of the Privy Council. He also, upon that occasion, stated the principal points of the conversation he had with the Vice-President, Mr. Forster, who gave as a reason for the opposition of the Privy Council that they did not think it a desirable thing for Government to introduce a measure, the tendency of which might possibly be to narrow the entrance into the profession and prevent the public from having the advantage of a sufficient number of qualified practitioners. The tendency, in fact, might be to create a monopoly in the medical profession. The result of his statement was in the minutes of March 26, 1873, and a motion was made by Sir Robert Christison, seconded by Sir William Gull—"That the President of this Council be requested to communicate with the Lord President of the Privy Council, in order that at its meeting to-morrow this Council may be supplied with authentic information as to the intentions of the Government." A deputation waited on Lord Ripon, and this is the account of the conference. "That the conference lasted an hour and a quarter; that there was no difference of opinion as to the desirability of the medical authorities in each division of the kingdom combining their examinations so as to reduce the number of entrances into the profession; that the Lord President was not disposed to introduce into Parliament for this purpose a measure that would be limited to conferring on the medical authorities a merely permissive power to combine. His Lordship was favourable to the introduction of a measure of this limited kind by some private member, but with the understanding that it would not preclude his consideration of a larger measure if on further thought he should find it expedient." The state of matters was this—they had an interview of an hour and a quarter, but after that interview, in which they were treated with the greatest possible courtesy, all they could make out of the intention of the Privy Council was the equivocal report he had just read. Speaking after an interval of more than a year, he would say that the Lord President of the Council would not have sacrificed any dignity if he had been more candid as to the intentions of the Privy Council on the subject; but they were left in a state of mystery and perplexity as to what the Privy Council intended to do.

The President said the Government perfectly approved of a private member taking charge of a Bill, but with the understanding that it would not prevent his consideration of a larger measure. In fact, they were left entirely in a state of doubt. This was considered at the time, and he thought it would be admitted now to have been rather perplexing to the Medical Council, who were exceedingly desirous of getting forward with these conjoint examinations, which had received their formal approval. Feeling very anxious that this matter should go forward, and that they should find some means of inducing the Privy Council to declare itself, he quoted a motion moved Sir William Gull, seconded by Mr. Hargrave, on March 28, 1873,—"That a deputation from the Council be appointed to ascertain from the Government whether they are willing to aid the Council in the removal of any legal difficulties that may exist in carrying out the objects of Clause 19 of the Medical Act." He lost no time in putting the whole matter before the Senate of the University of London, and, as there was a difficulty in getting the member for the University to introduce a Bill because he was a member of the Government, they applied to the Vice-Chancellor, Sir John Lubbock, who at once expressed his willingness to take charge of the Bill, the idea still being to get an enabling Act which would not give to the University of London any more than was given to any other representative body. The Easter vacation came on shortly after the Council rose last year, and there was no possibility of calling a meeting of the Senate at the time. Time wore on until they got to the Whitsun holidays, and then Sir John Lubbock said, "If you want to get this Bill through Parliament this year you must get the assistance of Government, because the rule is now in force that prevents a private member bringing on a private motion after half-past ten; and without the assistance of Government you cannot get this Bill through." Sir John Lubbock communicated with the Government, and asked whether they would assist him in getting on this private Bill. After some time Sir John Lubbock came to him with a paper in his hand, from which he saw very clearly that the condition imposed by the Privy Council was that unless the University of London introduced into their Bill a provision that all the bodies who were to profit by this Bill should consent to put their necks under the yoke of the Privy Council, the Privy Council would not consent to the legislation. For his own part he felt that would be a very serious responsibility for the Senate of the University of London to undertake. He showed the paper to friends whose judgment and position in the profession were of value. He showed it to Sir William Gull, to the President of the College of Physicians, and others, none of whom liked it. He went a step further, and ascertained that the University of Cambridge were by no means favourable to it. If an Act of this kind passed the Legislature, it would be a recorded declaration of Parliament that no conjoint examinations ought to take place unless under the direction of the Privy Council. That was too strong a step, and the result was that the whole thing was given up. There had been a difference of opinion between the Home Office and the Privy Council on the matter. He saw the late Mr. Winterbotham, then Under-Secretary of State for the Home Department, and talked the matter over with him. He said, however unreasonable it might be, there would be no getting over the objection of the Privy Council; "but," he added, "I will tell you what to do. The University of London is in this position already with regard to all its regulations—that they require the confirmation of the Secretary of State for the Home Department. If the Secretary of State discovered through the law officers of the Crown that the charter was an obstacle, why should you not be content with a Bill which will simply remove this obstacle so far as the University of London is concerned?" He (Dr. Storrar) was very reluctant to throw over the other bodies. He always greatly preferred in legislation to deal with all the bodies in the profession, and not to deal with details; but really he felt that the honour of the University of London was pledged to go forward with these conjoint examinations, and that it was the duty of the Senate to take whatever step was practicable. A Bill of this nature was accordingly introduced and passed, and under that Act they had now the authority of the Secretary of State to take part in these conjoint examinations. He could not sit down without expressing the great satisfaction he felt at the removal of all the obstacles. He had been on this Council since its formation. He had confronted various difficulties, but he was never placed in a more painful position than when he was obliged to say that there was a legal obstacle in the way of the University of London taking part in these conjoint examinations. It would be remembered by some now present, that at the conference which took place at the College of Physicians, the University of London led the way to the other Universities concurring in the scheme for conjoint examinations, and he had felt that there might possibly be in the minds of some members of the Council a lurking thought that the University ought to have found out the difficulty earlier—in fact, that they were hardly ingenuous in this matter. He was, therefore, very happy now to be able to show that the honour of the University was established, and that they had really taken very extraordinary pains to put themselves right and to enable all other bodies who felt inclined to follow their example.

Sir William Gull, in seconding the motion, congratulated the Council on the result of the labours of the Committee. He had always felt that such bodies as the universities were better occupied in the Honours department, and that there should be a conjoint scheme to settle the smallest amount of qualification. A similar communication had been received from Oxford and Cambridge, so that the period for conjoint examinations had at last arrived.

The motion was carried.

### THE BRITISH PHARMACOPŒIA.

Dr. Aquilla Smith moved—"That a Committee be appointed to prepare a new edition of the British Pharmacopœia, to be ready for publication in January, 1877." He said it was very desirable that there should be a new edition every ten years, which had been the rule in the United States for the last fifty years, and the American Pharmacopœia had obtained a very high reputation. During those fifty years there had been a standing committee to watch the progress of pharmacy and note all improvements.

The motion dropped, there being no seconder.

Sir William Gull observed that before 1877 the epitaph "*Fui*" would be upon many a now popular remedy.

### LIST OF REGISTERED MEDICAL STUDENTS.

Dr. A. Smith moved—"That the publication of the Annual List of Registered Medical Students be discontinued."

This motion also dropped for want of a seconder.

### ALTERATION OF NAME IN THE MEDICAL REGISTER.

A petition was read from Mr. Raye, a licentiate of the College of Physicians and Surgeons of Ireland, stating that his name had been erroneously printed without a final "e," and he had applied to the Irish authorities in vain.

Dr. A. Wood wanted to know what possible difficulty the Irish bodies could have in putting a man's name right, or on what ground they refused to correct a blunder made in entering the name.

Dr. Macnamara said that, to the best of his recollection, there was no error in entering the name; the gentleman had signed it Ray, and now he wished it to be changed to Raye. He apprehended that they were right in refusing to do that for him; but they had advised him to apply to the proper legal authority.

Dr. Parkes moved, and Dr. Fleming seconded—"That the letter from Mr. John Joseph Raye be referred to the Branch Council for Ireland, for the purpose of ascertaining the facts, and of altering the spelling of the name, if it be found proper to do so."

This was carried.

### ERRORS IN THE MEDICAL REGISTER.

Dr. Macnamara moved—"That it is advisable that in future proof-sheets as printed, but previous to publication, of the General Register should be forwarded to the Branch Registrars for each division of the United Kingdom for revision." He said that if there was anything the Council ought to be proud of, it should be the accuracy of their Register; but his attention had been at various times called to errors of various kinds. The most glaring one was that Mr. Adams, Senior Surgeon to her Majesty in Ireland, appeared about three years ago in the Register as an Assistant-Surgeon in the Navy. Clerical errors could only be corrected by the proof-sheets being sent to the respective registrars.

Dr. A. Smith seconded the motion, which was carried.

Dr. Macnamara then moved—"That it be referred to Mr. Ouvry to instruct the Executive Committee as to the strictly legal manner in which additional titles, changes of residence, and erasures of names should be effected on the General Register."

The PRESIDENT said the Act was most complicated and difficult to construe. In one part it said that the Registers of England, Scotland, and Ireland were to be used as means by which names were to be put on the General Register; but another clause seemed to indicate that the Local Register was to be kept up as well as the General Register.

The motion was carried.

QUEEN'S UNIVERSITY, IRELAND.

The Council then resolved itself into a committee of the whole Council for the further consideration of the Reports of Visitations of Examinations.

Dr. HUMPHRY moved, and Dr. BENNETT seconded—"That the reports on the visitations of the medical examinations in the Queen's University in Ireland, held June, 1873, and September, 1873, be forwarded to that University for consideration and remarks."

This was carried.

Dr. PARKES thought that the resolution they had passed on Saturday, with regard to the Royal College of Surgeons, Ireland, pressed rather hardly upon that body; and it seemed to him that they must either modify that language or deal in the same way with the Queen's University, because the report of the second visitation exposed defects almost, if not quite, as grave as those of the College of Surgeons. For instance, at page 189, the examiners said—"Indeed, looking to the comparatively short time allotted to the examinations, the fewness of the subjects of examination, and the meagreness of the knowledge required of candidates in the more important of them, we cannot think the examinations are at all adequate to insure that the successful candidates shall have had even a very moderate previous education; at all events, we think the examinations cannot be considered adequate for candidates for the degreee of M.D., even if thought sufficient for a simple licence to practise." Then, whilst the examination in anatomy was highly praised, other subjects were spoken of in a very different manner. "To this circumstance" (*i.e.*, the paucity of examiners) "it is doubtless in some degree attributable that the several practical examinations (always excluding that in anatomy) are insufficient." Those were quite as strong expressions as any that were to be found in the report of the visitors to the College of Surgeons, and therefore the Council ought to be even-handed in their justice. He proposed—"That the Council desire particularly to call the attention of the Queen's University to defects noticed in the second report in the preliminary examination, and in some of the subjects of the professional examinations."

Sir WILLIAM GULL, in seconding the motion, said he was more favourably impressed with the way in which the examinations were carried on at the Queen's University than at the Royal College of Surgeons. Still there were some things that called for remark. One man passed who said "water ascended in a syringe in consequence of the attraction of the piston," and others who failed in modern languages and experimental physics, though well qualified in other respects, were regarded as having passed the final examination, but were not allowed to take their degree until they had passed in those two subjects. Surely his French or German ought to have been taken much earlier in his curriculum. Then in zoology the candidates were allowed to choose whether they would take the paper on vertebrata or that on invertebrata. Then, what could be stronger than this language—"We have shown that the requirements for the matriculation examinations are exceedingly limited, and at two of the colleges are, in some respects, little more than a farce." No doubt there were many admirable features in the examination; but they did not meet in Council to praise, but to criticise and find fault.

Dr. HUMPHRY said this was the only report in which the preliminary examinations were alluded to. Therefore it would be rather severe upon the Queen's University if a censure was passed upon that examination. At the time he made the visitation things were in a state of transition, and it was intended that the examination in modern languages and experimental physics should take place at an earlier period. He did not think it was altogether injudicious that a candidate should be allowed to choose between papers on vertebrata and invertebrata. Then he wished the Council to look at the general impression produced upon the minds of the visitors. Mr. Power and himself stated—"It is with much pleasure that we are able to report so satisfactorily of the medical examinations in the Queen's University. Though there are some points which, in our opinion, might be altered for the better, there are others which seem to us well worthy of imitation." The other visitors (Dr. Bennett and Dr. Bristowe) said—"We were very much impressed with the general excellence and thoroughness of the examinations we witnessed, so far as they went." The report of those visitors was a most searching one, and it would be rather a harsh measure to pass a vote of censure upon a report which was much more minute in its criticisms than any other report before the Council, and in which there were the highest encomiums.

Dr. BENNETT asked the Council to consider the report from the standpoint of the examiners, who were under the impression that they were visiting examinations for the degree of M.D., whereas, in point of fact, the large majority of those who pass this examination do so for the simple purpose of obtaiuing a licence to practise; and the number of those who pass with any other motive was very small, so that the examination almost necessarily came down to the requirements of the majority. Unless that was kept in mind by the Council they could not appreciate the report, because most of its strictures were based upon the supposition that the visitors should point out what was necessary in a general course of education and examination, for the sake of obtaining the highest degree in the profession. The great extent of the subjects should also be considered. The defects, whatever they were, were freely admitted by the authorities of the University; and notwithstanding them, he must say that he adhered to the statement in the report as to being deeply impressed with the general excellence of the examinations. It was also true that he was surprised at the extraordinarily low qualifications of the persons who presented themselves; but it was clear from the large proportion of rejected candidates that the examiners were of the same opinion. He agreed with Dr. Humphry upon the examination in zoology, and was prepared even to go farther. To suppose that young men were to be prepared to be examined over the whole circle of zoological science was perfectly absurd, considering the limited time they had. Upon the whole he would say that he did not think the Queen's University ought to receive anything approaching to a vote of censure.

Dr. FLEMING called the attention of the Council to the following statement in the report:—"We think it right to say that in the course of our visit we ascertained that it is a common practice for candidates rejected at the M.D. examination of the Queen's University to present themselves at the next ensuing examinatiou of one of the Scottish licensing bodies, and to obtain therefrom a licence to practise almost immediately after previous examiners had declared them to be uufit." It was true that the Scotch bodies had a large uumber of candidates from both England and Ireland, aud when a man presented himself he was subjected to a thorough and searching examination. Many came from Belfast to Glasgow, the distance being about the same as from Belfast to Dublin; and others came from schools in the central parts of England. As Sir Dominic Corrigau admitted during the last session of the Council, there was a prestige attached to Scotch licences; they were much thought of in the colonies and by public bodies, such as Poor-law Boards, and in the army and navy. It was not, therefore, surprising that men came to Scotland, especially considering that they could get a double qualification at a single series of examinations and at a little less expense. He must say, however, that he read the visitors' statement with considerable surprise, and he had made strict inquiries, the result of which would be seen by a list he held in his hand, of the numbers of Irish candidates who had presented themselves for examination during the last six years and a half—the totals being as follow:—Applicants, fifty-nine; passed, twenty-one; rejected, thirty-eight. Four of those rejected had previously passed the first examination of the Queen's University, and sixteeu held Irish diplomas. Therefore it was perfectly evident that the Glasgow standard was higher than that of the Irish bodies. He had uo hesitation in resting the reply of the Glasgow Uuiversity to the visitors' statement upon those figures.

Dr. ANDREW WOOD thought the visitors had gone beyond their functions, and he had no hesitation in saying that he did not believe it was a common practice for candidates rejected at the M.D. examination of the Queen's University to present themselves to the Scotch licensing bodies. Attacks had been made in past years upon the Scotch licensing bodies, as if they were actuated by a greedy desire to allure students. He repudiated such a stigma. He challenged the most minute investigation.

Sir Dominic Corrigan then rose to address the House, but had only spoken a few sentences when the House adjourned, it being six o'clock.

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Fifth Day.—Tuesday, July 14.

The Council reassembled at two o'clock, and after the formal business resolved itself into a committee of the whole Council to resume the discussion on the visitors' reports of the examinations at

QUEEN'S UNIVERSITY, IRELAND.

Sir Dominic Corrigan said he thought the Council had done wrong in coming to any conclusions until the whole of the reports were before them. They were now in this remarkable position: a resolution had been moved by Dr. Parkes and seconded by Sir William Gull, who, in respect to the College of Surgeons and the Queen's University, changed places like the characters in a pantomime; and then one of the visitors, Dr. Humphry, stated that the examinations in the subjects that were the foundation of all medical studies were so good that he wished the same system was carried out in Cambridge. Dr. Parkes had dwelt upon the defects of the preliminary examination; but when he referred to the report he found the visitors recommended that history and geography should be removed from the list of subjects. He could scarcely read that without laughing; and as to the requirements for the matriculation examinations at two of the colleges being "little more than a farce," the same thing might be said in respect of nearly all the colleges whose preliminary examinations were recognised by the Council. Dr. Parkes said that the College of Surgeons was severely dealt with by the resolution passed on Saturday, and by way of compensation he proposed to be twice as hard upon the Queen's University. For many years Dr. Parkes had shown a spirit of unjustifiable hostility to the Queen's University. It was the youngest child of the Medical Council—the last created university, and seemed in its infancy unable to protect itself. Whilst this young Hercules was in the cradle, two serpents were sent to strangle him, but the baby proved too strong for them, and the University now defied all attempts to injure its character. The resolution which Dr. Parkes proposed in 1870, and upon which there was a discussion which lasted two days, was this—"That it be an instruction to the Executive Committee to communicate to the Privy Council the correspondence between the Registrar of the Queen's University in Ireland and the General Medical Council, and to urge upon the Privy Council the necessity of refusing registration to the graduates of the Queen's University until the University complies with the recommendation of the General Medical Council on the preliminary examination of medical students." He withdrew that resolution, but he had allowed four years to pass without attempting to carry his threat into execution.

Dr. Parkes said that he had repeatedly in Sir Dominic Corrigan's hearing given his reason for not doing so, which was that the Medical Act did not authorise the interference of the Privy Council.

Sir Dominic Corrigan: Then you brought forward an illegal resolution.

Dr. Parkes: I did not know it at the time.

Sir Dominic Corrigan: You ought to have known it. Ignorance is no excuse; and it was your duty as a man of honour, when you learned that it was an illegal resolution, and that it was damnifying the Queen's University, to have given us an explanation.

Dr. Parkes: I have explained the whole thing several times.

Sir Dominic Corrigan (in continuation) said that as to the censure or praise of the Council, the Queen's University felt exactly as it did from the commencement. It had done its work well, and had obtained the highest distinction at the examinations of the Army Medical Board. With those results before the Council, Dr. Parkes ought not to have brought forward his resolution. It was the least business-like resolution he had ever read. It spoke of defects "in some of the subjects of the professional examinations" without specifying any. If the resolution damning the professional reputation of the Queen's University passed, it would be flung in the face of every student as a warning not to go to such a school of medicine; but he was not at all anxious upon that account. He would ask the attention of the Council to some passages in the report, which had been omitted by those who had criticised it—"The answers are written in books, which must be given up without mutilation, in order to prevent the candidates from communicating with one another by slips of paper. Notwithstanding these precautions, and the presence of Mr. Stoney, the Secretary, who exercised unusual vigilance, instances of communication between the candidates occasionally occurred, and were observable. We mention this rather to indicate the great difficulty of conducting an examination satisfactorily than to criticise the conduct of the examination in this instance, which appeared to us to be particularly good." Was that one of the defects in the professional examination? Then again—"The clinical examinations are conducted in the hospitals and union houses, the precise place in which each examination is to take place not being made known to the students till the morning of the examination." Was that a subject for censure or for praise? He thought it was worthy of imitation, and that it was unfair, in criticising a report, to omit such passages. "The examiners in anatomy and physiology, in chemistry, botany, zoology, modern languages, and experimental physics are the professors of the three colleges, and are therefore permanent examiners. The three professors of the three colleges act together as examiners in each subject. Those in midwifery, medicine, surgery, medical jurisprudence, and materia medica (there is only one in each) are appointed by the Senate, and hold office for two years." That, surely, was a very fair court of examiners; every two years they changed the major part of the examiners in arts and in medicine. In some other universities the same examiners were continued for life, and yet, whilst reports as to those bodies which had such faults in them were not before the Council, they were asked to send forth a censure upon the Queen's University. "The questions are ranged under the names of the examiners who have severally set them, and the answers to the questions of each examiner are looked over, and the marks assigned by that examiner. By this means, no doubt, trouble and time are saved, and we did not observe that any evil resulted from it." Was not that a subject for praise? Great fault had been found with the practice of allowing a man to choose between the papers on vertebrate and invertebrate animals; but he thought one of those subjects was quite enough, and it was certainly a better plan than that of another university, which divided its course into civil history and natural history—the first part consisting of the history of England from the accession of George I., and the second part of vertebrate and invertebrate animals. Upon the examination in practical anatomy, the visitors said:—"The examination was conducted in a remarkably thorough, searching, and efficient manner. For instance, one candidate who had dissected the axilla was examined successively on the upper part of the thigh, the digastric triangle of the neck, the outer side of the leg, the bend of the elbow and the upper arm, the posterior wall of the abdomen and thorax, and the cranial cavity, as well as upon the axilla, which he had himself dissected. He was then examined on the superior and inferior maxillary bones, th tibia, fibula, and patella." Was it fair in Dr. Parkes not to call attention to such a passage as that? "The oral examination on the bones and on the dissections was conducted by the several examiners separately, the pupils as a rule not being questioned by the professor of their own college." At several other universities a man was examined in books from which he had been carefully taught. The clinical examination in surgery was "well conducted," and in the oral examination "the questions, which were varied, were good, and generally well answered. It occupied more than the three hours allotted for the paper, and had to be continued on a subsequent occasion." That could not have been a bad examination. The reason the visitors gave for recommending that there should be two examiners in clinical surgery was very curious—"because, among other reasons, in the investigation of patients there is not unfrequently room for some difference of opinion;" so that they suggest that there should be a row at the patient's bedside. (Laughter.) "The introduction of anatomy and physiology as parts of the final examination appears to us to form a very valuable and important feature in the system of this University." That was a most important point. "A knowledge of these subjects, so essential to the successful practice and the scientific pursuit of medicine, can, as a rule, be obtained only during the period of student life. When the examination in them is confined, as is usually the case, to the primary examination, these subjects are studied only for a short period, and at a time when their practical bearings can be but insufficiently appreciated by the student. They are hence liable to be soon forgotten. This—which is felt by

many teachers to be a serious evil attendant upon the system, now universally followed, of completing the anatomical and physiological education and examinations at the end of the second year of the medical curriculum—is avoided in the Queen's University by repeating the examination in these subjects at the close of the curriculum." Was that matter for censure?

Dr. Parkes asked if the gentleman whose answers were printed at page 163, and who passed the examination for M.D., was examined in the modern languages, especially in English?

Sir Dominic Corrigan: Certainly. He then called attention to a passage at page 205—"But when we consider the fact that candidates are only required to attend the medical practice of a hospital containing sixty beds, of which probably thirty only are medical, for a period of two years without necessarily holding the office of clinical clerk or taking any part in the management and treatment of the patients, it would almost appear that the medical examinations were reduced in stringency and relative importance in deference to the slender clinical experience of the expected candidates." He was of opinion that a student might learn much more from carefully examining cases in a hospital where there were only sixty beds than from wandering about among 200 or 300 beds, and cursorily looking at cases. The report continued: "It does not appear from the calendar that a candidate for the M.Ch. needs to have filled the office of dresser." Was that necessary? How were all the students to get the office? It was perfectly impossible to make them all dressers.

Dr. Parkes: The report goes on to say, "or that the candidate for the midwifery diploma needs not to have conducted a single case of midwifery."

Sir Dominic Corrigan said that was not correct. He did not read it, because he did not wish to be too hard upon the examiners. Then several pages of the report were occupied with arguments upon the futility of testing the merits of candidates by figures. At page 212 they said, "The number of examiners in medicine, surgery, midwifery, materia medica, and forensic medicine should be doubled." Very good; but where were the funds to come from? There was such a body as the Treasury who examined the accounts, and they might possibly object. (Laughter.) Then at page 213 there was the paragraph about which so much had been said—that candidates rejected by the Queen's University, as "a common practice," presented themselves to Scottish licensing bodies, and obtained the necessary qualifications from them. Upon what ground did the visitors say that? What proofs had they before them? If they had none, they ought rather to have cut off their hands than have written such words. After further commenting upon one or two passages in the reports, Sir Dominic moved the following amendment:—"That all comment and criticisms on the reports of visitations be suspended until the reports of visitations of all the licensing bodies be laid before the Council; and that the resolution of Sir William Gull, seconded by Dr. Parkes, on July 11, 1874, in reference to the Royal College of Surgeons in Ireland, be, and is hereby, rescinded."

Dr. A. Smith seconded this.

Dr. Parkes disclaimed all hostility towards the Queen's University. The only reason for the charge of hostility which Sir Dominic Corrigan had mentioned was, that some years ago he had brought forward a motion urging that the Privy Council should disallow the registration of Queen's University men until that University had complied with the suggestions of the Medical Council. The origin of that was, that some years ago there was a visitation of the Queen's University, and the visitor reported that the University had not complied with the regulations of the Medical Council. A committee was appointed to consider the various reports, and that committee put this paragraph in its report—"The Committee are informed that a student may follow his professional studies for two years before passing his preliminary examination in arts. The attention of the University should be directed to the evil of this, as permitting insufficiently educated persons to enter on professional studies." It fell to his lot to bring forward a motion that the Registrar should write to the Queen's University requesting their attention to this report, and pointing out that they were not complying with the recommendations of the Council. The Registrar wrote a second time, but to that letter there was no answer, or a doubtful one. Then he (Dr. Parkes) addressed a few questions to Sir Dominic Corrigan, but he might as well have addressed them to an eagle. At one time he was not in the Council, and at another time he seemed to misunderstand the questions; but that could not be the case, because he was far too sharp to misunderstand anything; nevertheless, the fact was that he could not get an honest "Yes" or "No" from him. Then it was that he brought forward the resolution which Sir Dominic had read; but after bringing it forward it was pointed out to him that the Privy Council could not judge between the Council and the Queen's University because it concerned preliminary and not professional education. The President asked him to withdraw the resolution, and he did so. As to any hostility to the Queen's University, he denied anything of the kind. Some of the professors were his personal friends, and the University had done good service in Ireland. Indeed, until he read this report he was of opinion that it had done much better service. He was obliged to Sir Dominic for calling attention to the resolution proposed in 1868, because the Council would see that nothing had been done in the Queen's University in compliance with the suggestions of the Council for the last seven years; and he believed that no effect would be produced upon the body by anything the Council might do. The last part of the motion referred to defects in some of the subjects of the professional examination. With the exception of anatomy, there was not a subject upon which something serious was not reported. Dr. Bennett said what he could to extenuate this; but did he wish the Council to take what he said yesterday or what he had written? If he wished to eat his own words he could not eat the words of his colleague Dr. Bristowe. The dignity and the duty of the Council were both involved, and such a report ought to be treated with the utmost gravity.

The President said he did not believe there was one body recognised by the Council whose preliminary examination was a "farce." Many of them were chosen by the Council at large, and of late years it had been the duty of the Executive Committee to revise the list carefully, and the Council generally adopted the recommendations of its Committee.

Sir William Gull protested against its being said that any member of the Council was actuated by hostility because he felt it his duty to criticise a report. It was not the way in which he had been accustomed to deal with public work, and he never had heard such allusions in any other public body. He had known Dr. Parkes for thirty years, and he was the most honourable and fair man he knew. If the Council rescinded its resolution he would move that they should go before the Privy Council with the report in their hands, which was the proper thing to do. Sir Dominic Corrigan had asked, Why deal with this until you have got the whole of the reports? The answer was—two negatives do not make an affirmative. They were working for the interests of society, and it was utterly unbecoming that any personal language should pass between members of the Council. It was not the way to arrive at the truth.

Dr. Bennett said he was not anxious to defend any particular part of his report. To the best of his belief, it was an honest report, and it was drawn up with great care and labour. Dr. Bristowe and himself were open to receive information from any quarter that presented itself, and there was not a statement in the report which was not given on credible authority. It would be a gross infringement of the confidence placed in them if they were to give up the names of the gentlemen who supplied them with information. The utmost he could say was that they did not go outside Queen's University for the information. He entirely sympathised with the remarks of Sir William Gull, especially with regard to Dr. Parkes, who was on the committee with regard to preliminary examinations, and he did no more than his duty in insisting upon returns which have never yet been received from Queen's University.

Dr. Andrew Wood did not agree with the tone of Sir Dominic Corrigan's remarks, but many of the statements he made had convinced him that the Council ought not to send down a vote of censure against the Queen's University. He hoped, therefore, that they would not adopt the motion of Dr. Parkes. He believed, however, that they were justified in the course they had taken with regard to the College of Surgeons, especially in the matter of their refusing to give up the papers. He did not impeach the honesty of Dr. Bennett's report, nor the industry with which it had been drawn up; in fact, the industry was rather excessive, because several pages were devoted to observations upon the system of giving marks, which appeared to be so far-fetched and wide-drawn that he could not take the trouble of reading it at all. Dr. Bennett was bound, in his

opinion, to give his authority for the invidious passage at page 213, relative to men rejected at the Queen's University obtaining Scotch diplomas. Dr. Fleming's statistics proved that the remark could not apply to the body he (Dr. Fleming) represented. To whom, then, did it apply? A great many candidates came over from Ireland. If they were ill-prepared they were rejected, and if well prepared they passed. There was no such remark in the other reports, and its appearance in this report had created a large amount of bad feeling in Scotland. He hoped Dr. Bennett would either tell them his authority or express his regret for having written such a paragraph.

Dr. Bennett declined to disclose the source of the information he had received. With regard to the judiciousness or otherwise of putting such a statement in the report, he could only say that it was very much pressed upon him and his colleague.

Dr. Humphry said that there was no other report in which such high encomium was passed as appeared in the last paragraph of the report on the Queen's University examination. His own impression was that it was one of the very best examinations in the United kingdom; and if a censure were now passed, it would be in opposition to the two members of the Council who made the visitation.

Sir Dominic Corrigan said that he hoped Sir William Gull would carry out his threat of going to the Privy Council; he should have all the assistance in carrying out that object which he (Sir Dominic Corrigan) could give.

Mr. Macnamara thought it would be much more becoming the position of a grave deliberative assembly if they could discuss these questions calmly and without indulging in personalities. The reputation of the Royal College of Surgeons, upon which the Council had passed a censure, was second to no surgical corporation in the empire. Sir William Gull had adopted the well-known rule—"Having no case, abuse defendant's attorney." In a voice semi-tragic and semi-comic, irresistibly reminding one of Buckstone in his best days, he read the words from the report at page 142—"Its defects, on the other hand, as at present conducted, are no less patent"—and stopped there. The report, however, went on—"and we have the less hesitation in referring to them, since we have reason for believing that they are recognised by several members of the Council, and are likely to be in part removed by changes about to be adopted." There was, as they all knew, a remarkable kind of blindness, the sufferers from which could not see some things in daylight, and other things they could not see at night. He asked the Council to turn their attention to this remarkable phase of blindness in Sir William Gull.

The President intimated to Mr. Macnamara that he was forgetting his own caution against personalities.

Mr. Macnamara said he must give it to Sir William Gull. (A laugh.) However, he would satisfy himself now with reading one passage from the report on the College of Surgeons:—"In conclusion, we may remark that the good points of this examination are sufficiently obvious. It combines, in a very appropriate and advantageous manner, a written, an oral, a clinical, and a practical examination, and, if efficiently conducted, it is difficult to conceive that any candidate could pass who had not acquired a thorough knowledge of the foundations of professional attainments."

Dr. Quain would vote against Dr. Parkes's motion, because he thought it right that they should have the answers from these bodies before they proceeded to any judgment.

Dr. Acland said that the moment the Council descended from its great position, as the adviser of the licensing bodies, to interfere in small details with great university bodies, its moral influence was gone. A celebrated professor had said that the influence of the Council was to lead and not to drive these bodies; and the driving power was a representation to the Privy Council. If Sir William Gull thought that the Queen's University was not doing its duty, he might represent that to the Privy Council, and that would relieve them from the difficulty; but not excepting upon full evidence ought they to condemn any body; and when Dr. Bennett and Dr. Humphry thought it would not be right to censure the Queen's University, he felt that he must vote against the motion.

The amendment was negatived by thirteen to four.

The motion was then put, and negatived by sixteen to three.

The Council resumed, and adopted the resolutions passed in Committee.

DRAFT OF PROPOSED BILL TO AMEND THE MEDICAL ACT OF 1858 (21 AND 22 VICT., CAP. 90.)

Sir Dominic Corrigan proposed, and Dr. Aquilla Smith seconded—"That the following draft of a proposed Bill to amend the Medical Act of 1858 (21 and 22 Vict., cap. 90) be adopted":—

Whereas it appears expedient to amend the Medical Act, August 2, 1858, 21 and 22 Vict., c. 90.

1. That from and after the ....., Clause 36 be and is amended as follows:—That, from and after the passing of this Act, no person, unless previously registered, shall be entitled to hold any appointment as a physician or surgeon, or other medical officer in charge of sick or wounded, either in the military or naval service, or in emigrant or other vessels, or in any hospital, infirmary, dispensary, or lying-in hospital not supported wholly by voluntary subscriptions, or in any lunatic asylum, gaol, penitentiary, house of correction, house of industry, parochial or union workhouse or poorhouse, parish union, or other public establishment, body, or institution; or to any friendly or other society for affording mutual relief in sickness, infirmity, or old-age; or as a medical officer of health, unless he be registered under this Act, and unless, in addition to his being duly registered, he shall also be examined and declared competent for such appointment by an examining board as hereinafter provided, and entitled to append to his name on the Registry the letters C M.B., signifying Civil Medical Board.

2. That within the period of three months from and after the passing of this Act, it shall be the duty of the General Medical Council to appoint a Civil Medical Board, consisting of five examiners from England, five from Ireland, and five from Scotland, whose duty it will be to examine all candidates presenting themselves, who shall have obtained the degree or licence to practise medicine or surgery from bodies legally entitled to grant such degrees or licences, and have been duly registered as such; and that on passing such examination they shall be entitled to append to their names C.M.B., and shall be eligible to hold public appointments as provided for under Clause 11 of the Amended Act.

3. That the respective local registrars for England, Ireland, and Scotland shall be the registrars for the Examining Board, and shall keep the registries and examination lists in such form as laid down by the General Medical Council, and that for such additional duties they shall be paid such salary as the General Medical Council shall allow, with the approval of the Commissioners of Her Majesty's Treasury.

4. That the Board of Examiners, as so appointed, shall be an Examining Board only, without any power to inquire into or lay down courses of education or of study.

5. That the fee for examination and certificate from the Examining Board shall not exceed £5, and that in case the amount so received for such examinations be not sufficient to meet the expenses of the Examining Board, it shall and may be lawful for the Lords Commissioners of Her Majesty's Treasury to award such sums as may be requisite to pay the salaries of the Boards of Examiners and their clerks.

6. That the Examiners shall be appointed for three years, but not for a longer period, and shall not be eligible for re-election until after an interval of three years, and that members of the General Medical Council shall not be eligible to be appointed as examiners.

7. That this Act shall be construed as one with the Medical Act of August 2, 1858, entitled "The Medical Act of 1858."

Dr. Storrar and Dr. Andrew Wood and Mr. Quain briefly opposed the motion; and the Council adjourned at six o'clock.

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Pulsation is also frequently seen in the epigastric region. Sometimes this is associated with absence of the apex-beat from its usual position, and is to be regarded as one form of its displacement—a displacement which may be brought about in various ways, the commonest of these being dilatation of the right ventricle, by which the left ventricle is pushed backwards, the right one communicating its impulse to the lower part of the sternum and to the liver, which is then seen to pulsate in the scrobiculus cordis. It may be doubted if such pulsations are ever visible in a perfectly normal condition of the heart and neighbouring organs. Assuredly they are often seen where no actual cardiac disease exists; simple dilatation of the right ventricle is invariably more or less present when pulmonary congestion exists, even from such simple and temporary causes as strenuous exertion or bronchial catarrh; and whenever dilatation of the right side exists to any considerable extent, epigastric pulsation may be seen. It is rendered more perceptible by any cause which may effectively conduce to the transmission of such impulse to the abdominal walls. Thus it is sometimes favoured by the existence of effusion in the pericardium, but especially by the occurrence of enlargement of the liver, which is so frequent a concomitant of dilatation of the right ventricle. Indeed, in such circumstances, the systolic impulse of the venous regurgitation itself is occasionally so great as to induce actual pulsation of the whole liver, a pulsation which is then visible, not merely in the scrobiculus cordis, but throughout the whole right hypochondriac region; an extent of hepatic pulsation which is not, however, always distinctive of great venous regurgitation, as it is occasionally seen as the result of the impulse communicated by a large aneurism lying immediately above the liver.—"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874).

# ORIGINAL LECTURES.

## COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

### Lecture VI.—Acute Tuberculosis (*Continued*)—Tubercular Meningitis (Acute Hydrocephalus).

(*Concluded from page* 2.)

The diagnosis of tubercular meningitis in the child is often very difficult in the early stage. The danger lies not so much in overlooking the disease when it is present as in suspecting its existence in cases where many of the symptoms are simulated by other affections. On account of the activity of the nervous system in young children, and the commotion into which it is thrown by the presence of acute illness, symptoms indicating functional disturbance of the brain may accompany many acute disorders. We should not therefore, because such symptoms are present, rashly assume that the disease must be a cerebral one, still less that it must be tubercular meningitis. M. Rilliet has given a wise caution against hurry in the diagnosis of this complaint. An opinion should be formed with deliberation, and be rested not upon one or two symptoms, but upon a broad view of the whole aspect of the case, otherwise we shall be very likely to fall into error.

There are numerous symptoms indicative of cerebral disturbance, which, although frequently present in cases of organic disease of the brain, are yet perfectly compatible with mere functional derangement: vertigo, headache, delirium, twitching and convulsive movements, irregularity of pulse, all belong to this class. One or all of these may be present in a case without necessarily denoting more than nervous irritability and distress, which may be of purely functional origin. Tubercular meningitis is essentially an insidious disease, and there is a certain regular progression in the symptoms which should be always looked for. The condition of the child before the actual outbreak, then, becomes of especial importance, and a history of several weeks or months of languor and steady wasting greatly heightens the importance of the more definite symptoms of invasion. Vomiting, combined with constipation and an elevated temperature, coming on under such circumstances is always very suspicious. If afterwards the pulse becomes slow and irregular, and there is drowsiness, with occasional squinting or inequality of pupils, there can be little doubt remaining as to the nature of the complaint. In all such cases it is important to attend to the expression of the face. During the invasion stage the child looks really ill, and the features are pinched and drawn. In a case where tubercular meningitis is suspected, if this haggard expression be noted, however slight the other indications may be, we are justified in entertaining the most serious apprehensions.

A slow irregular pulse, especially if the intermission be complete, very greatly increases the value of the symptoms with which it may be associated. It must, however, be remembered that during convalescence from acute disease the pulse in a child often becomes slower and irregular, and may even completely intermit, especially during sleep. But in such cases the condition of the child is improving, while in the case of tubercular meningitis the slackening of the pulse is accompanied by increased mental heaviness, without any amelioration in the other symptoms.

In a typical case where all the symptoms of invasion are present, the diagnosis is not a difficult one, but very often some are absent. Thus, the disease may begin without vomiting, or this symptom may occur once and not be repeated. In other cases the usual constipation is absent, and the bowels may even be relaxed; but if there be headache and drowsiness with deep sighs, and if the pulse becomes slow and irregular, we have grounds for the very gravest suspicion. Irregular breathing is in such a case of the utmost importance, and, if markedly unequal, is perhaps more to be relied upon than any other *single* symptom in the diagnosis of tubercular meningitis during the early period. When in doubt at this period we should look for the slighter forms of nervous derangement, as these are more to be trusted than the severer, which occur, as a rule, later on in the disease, and are only occasionally present in the beginning. Thus, it is the exception for the disease to begin with a fit of convulsions or violent delirium, or other form of intense nervous excitement. In ordinary cases the symptoms are much less startling in their character, and must be looked for in order to be observed. Thus, the child may be noticed to contract his brows, wink his eyes, and avoid the light; his face wears a discontented or spiteful expression; the checks flush up and then grow pale, and the features are suddenly contracted at times with a strange grimace; the child puts his hand to the crown of his head, complains of headache, and sighs frequently; he is sullen and morose, has a peculiar fixedness of look, and answers questions dryly or not at all. Symptoms such as these are very valuable, because they, or at any rate some of them, are almost invariably present during the stage of invasion.

The diagnosis of tubercular meningitis has often to be made by exclusion. In all cases of acute illness beginning with nervous symptoms and with vomiting, the meningeal disease may be suspected, and we can only wait for further information before venturing upon an opinion. In the case of the exanthemata the appearance of the specific eruption enlightens us upon the nature of the case. If the disease be pneumonia or pleurisy the characteristic signs of these complaints will be discovered on examination of the chest. Pneumonia, especially when it attacks the apex of the lung, is sometimes accompanied by nervous symptoms which bear a close resemblance to those of tubercular meningitis; a case of this kind has already been related (*Medical Times and Gazette*, 1873, vol. i., p. 437). Cases, however, constantly occur where the symptoms are anomalous, and where, however carefully the patient be examined, the most experienced physician must be at fault as to the nature of the disease. In such cases the medical attendant should proceed with caution, visiting the child frequently, and watching anxiously for any fresh and more definite signs which may point him to a conclusion.

There are two forms of disease in which mistakes are particularly likely to happen. Thus, exhaustion in children often manifests itself by vomiting and constipation, with drowsiness and great restlessness and distress. But here on inquiry we generally find a history of some recent acute attack, and the temperature is not elevated. Still it is often far from easy to give a decided opinion at once upon the nature of such an illness. Again, in that form of chronic abdominal derangement which I have elsewhere described under the name of "mucous disease,"(a) a sudden attack of gastric catarrh, with vomiting, constipation, and headache, may occasion very great anxiety, as the languor and wasting by which the disease had been accompanied may be easily mistaken for the premonitory stage of acute hydrocephalus. But in these cases, also, the temperature is generally low, and after a day or two, the gastric disorder having subsided, the child begins to improve. In gastric catarrh the heat of the body is not as a rule much elevated, often not at all, and the face does not show the pinched, haggard expression which is so common in intracranial disease.

During its later periods, tubercular meningitis may be confounded with any other cerebral lesion. To make a distinction, it is important to obtain a clear account of the history and progress of the illness, for the insidious beginning of tubercular meningitis is an important element in the diagnosis. In a practical paper it will be unnecessary to go through all the diseases which bear more or less resemblance to the one we are considering. For fuller information on this subject the reader is referred to Dr. Gee's admirable treatise in Dr. Reynolds's "System of Medicine." There are, however, three diseases which it is not so very uncommon to meet with in practice, and which may be briefly alluded to. These are—simple meningitis (without grey granulations); cerebral tumour; and abscess of brain, due to disease of the petrous portion of the temporal bone, with suppuration in the mastoid cells.

Simple meningitis begins suddenly in a state of good health or after an accident, with either violent convulsions, high fever, and rapid breathing, or with severe headache, fever, and sickness; the patient then gets drowsy, and is excessively restless; the restlessness passes into wild delirium; and after a very few days collapse comes on, and the child dies exhausted. Constipation is slight, and the pulse, although intermittent, is not slow as a rule. The disease then begins violently, and increases in violence as it goes on. Its duration is short, and it rarely lasts longer than a week.

(a) See "Wasting Diseases of Children," second edition, p. 172.

Cerebral tumour also manifests itself suddenly, generally by a convulsive fit, or some other severe nervous symptom, such as a paralytic lesion, with violent paroxysmal headache, and perhaps vomiting. It only exceptionally begins with the invasion symptoms common to tubercular meningitis—viz., vomiting, constipation, and headache alone. In any case the course of the two diseases is very different. In tumour the convulsions are violent, frequently repeated, and are followed by paralysis or rigidity in the convulsed parts. The paralytic lesions are various, and usually include some one of the organs of special sense. As a general rule, the intellect is preserved till late in the disease, and there is none of that drowsiness and dulness of mind which is one of the most prominent symptoms in tubercular meningitis. If, however, the tumour be tubercular, there are often granulations in the meninges causing meningitis. In such a case the symptoms of cerebral tumour would be confused and combined with those dependent upon the complication.

In cases of disease of the pars petrosa, with formation of intracranial abscess pushing up against the brain, the symptoms are much the same as those of cerebral tumour, provided pyæmia be not present. If there be pyæmia the case is complicated by the ordinary symptoms of that disease. The existence of long-continued otorrhœa with a history of previous deafness is a valuable assistance in the diagnosis of such cases.

Tubercular meningitis is almost inevitably fatal, and we should not therefore allow ourselves to be deceived, by any sudden amelioration in the symptoms, into a belief that the child is about to recover. Such sudden changes are not uncommon, but they are most deceptive, and when they occur it is our duty to warn the friends of the patient of the little confidence that can be placed in the apparent improvement.


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# Medical Times and Gazette.

SATURDAY, JULY 18, 1874.


## GENERAL MEDICAL COUNCIL.

Most fortunately, Dr. Paget was able to gracefully yield to the solicitations of—or perhaps it would be more apposite to say the moral suasion used by—the Council, and to accept his re-election to the Presidency, and hold office again for a while. Dr. Paget only promises, indeed, to occupy the chair during the present or the greater part of the present session; but the Council is to be heartily congratulated on having the benefit of his experience and of his impartial, firm, and courteous rule till at any rate the chief work of the session is finished.

The question of the Presidency thus happily settled, the next business of importance before the Council was to determine how they would deal with the Reports of the Visitations of Examinations. Dr. Andrew Wood and Dr. Parkes proposed that the reports should "be received and appended to the Minutes of the present session of Council"; but to this resolution a rather surprising amendment was moved by Professor Turner and Dr. Storrar—viz., "That the Reports of the Visitors of Examinations be received, but for the present held as confidential." The President very pertinently observed that he did not see how the Council were to discuss publicly a measure which was held as confidential, and asked whether it was proposed to exclude reporters during the discussion of the reports, and Dr. Storrar replied that he did contemplate that. We cannot but think the proposition a very unwise, and by no means a kind one, for, as Dr. Humphry observed, such a mode of dealing with the reports would lead the visited bodies, and, we may add, the profession, to suppose that there was in the reports something that required to be kept secret. The public, as well as the reporters, would of course, have had to be excluded from the council-chamber while the reports were being discussed, and the inference would inevitably have been drawn that some most damaging report had been made on some one or more of the examinations visited. The amendment was negatived, and Dr. Wood's resolution was carried unanimously. Some time was then occupied in discussing whether the reports should be considered during the present or the next meeting of the Council, and also whether it would not save time and conduce to orderliness of debate if a committee were to prepare, for the guidance of the Council, a report on the reports, giving an abstract of the most important points to be dealt with; but it was finally resolved—"That the Reports of the Visitations of Examinations be considered to-morrow in the committee of the whole Council." We will notice here only one other subject dealt with on the Thursday. The Board of Trade had written to the Council "respecting two registered practitioners who were not allowed to take charge of emigrant ships in consequence of their misconduct." It appeared that the surgeons in question had been found on board drunk and incapable of performing their duties. The President was of opinion that the Council could not proceed in any way against those persons, unless it was held that there was *primâ facie* evidence of their having been guilty of infamous conduct in a professional respect; and the Council resolved—"That the Registrar acknowledge with thanks the receipt of the letter, but that the Council has no power to interfere in the case referred to." It does rather strike one that it is an infamous thing in a professional respect for an officer to be drunk and incapable on duty; but most likely it was considered that if the Council were to act on that view, the result, if the offence was proved, could only be the removal of the offenders' names from the Register; and that this again would, in all probability, lead to the loss of their status as legal practitioners. This, it may be felt, would be too severe a punishment. The medical officers had, by the Board of Trade, been dismissed from their ships; to cashier them also would perhaps have been too harsh a measure.

On Friday, the second day of the session, the Council proceeded to consider the Reports of the Visitations of Examinations, and the President endeavoured to impress upon the Council the importance of being as business-like and brief as possible in the very serious work before them. Thereupon Sir Dominic Corrigan moved to defer the work till the examinations of all the licensing bodies had been visited, and the reports referred

to those bodies for their observations. Sir Dominic's resolution did not meet with even a seconder, however, and therefore fell to the ground.

The first report taken was that on the examinations by the Apothecaries' Society of London. This must be considered as on the whole decidedly complimentary; and Dr. Quain, one of the visitors, observed that the examinations were "as satisfactory as they could well be," but he drew attention to "two very important remarks" in the report. One made reference to the deplorable ignorance and unpreparedness of some of the candidates; and Dr. Quain gave some striking, and to non-examiners almost incredible, examples of this. The examining body is not in any way, we hardly need remark, responsible for this; but it merits notice because the remedy lies, to a great extent at least, with the schools from which such candidates come. It must, we suppose, be in the power of a school to refuse its certificate to a student unless he has not only attended lectures, dissected, worked in the hospital wards, etc., but has also proved, under class or tutorial examination, that he has acquired a certain minimum amount of knowledge; at any rate, this can be done by a rule or rules to be signed by every man before he is admitted as a student.

The other remark in the report especially referred to by Dr. Quain was on the fact that the Apothecaries' Society does not examine in surgery, though this is one of the subjects which seven years ago the Council decided that every candidate should be required to take up, and "without which no candidate should be allowed to obtain a qualification entitling him to be registered." The visitors reported that they understood "that the Society is precluded by its Act (of 1815) from testing the knowledge of candidates in surgery," and Dr. Quain remarked that by its new Act the Society retains the power of still giving its licence without an examination in surgery. But Mr. Bradford stated that "the Act of 1815 did not preclude the Society from examining in surgery;" and he thought they would come into collision with the College of Surgeons if they did it; "he was sure, however, that if it was thought expedient that they should examine in surgery they would most willingly do so, for it had been their policy throughout to follow the recommendations of the Council." It is rather difficult to give the Society full credit for this in face of the resolution passed by the Council in 1867 and above referred to, but we suppose the Society requires a direct and specific recommendation of Council addressed to themselves on the subject to give them the courage to face the dreaded hostility of the College of Surgeons. The visitors approved of the examination as a whole, "when fully carried out," but added "that the restrictions imposed by the Act of 1815 render it almost impossible for the Society to carry out a thorough system of examination." Some of the members of Council proceeded to criticise some of the questions put to the candidates, but it was suggested that these criticisms would apply to the examinations of most of the bodies, many of the questions being "a great deal too difficult for the young men who had to answer them," and that it would be better to give notices of resolutions on such general points for discussion when all the reports had been considered. This suggestion was adopted, and the Council then resolved—"That a copy of the report of the visitors of the examinations of the Society of Apothecaries be forwarded to the Society for their consideration and remarks."

During the remainder of the Friday's sitting, and on Saturday, the Council passed a like resolution regarding the reports of the visitors to the examinations of such of the Scottish bodies as had been visited—viz., the reports on "the first and second conjoint examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh," on "the examinations for the single qualifications" of those two Colleges; on "the second conjoint examination of the Faculty of Physicians and Surgeons of Glasgow, and of the Royal College of Physicians of Edinburgh;" on "the first and second examination of candidates for the diploma of the Faculty of Physicians and Surgeons of Glasgow"; and on "the several examinations of the University of Glasgow." Much discussion was raised at various times as to some details of the mode of conducting the examinations, such as—on the advisability or not of setting three or four questions, and asking for answers to two or three only; on the great deficiency exhibited by many of the candidates in general and professional education; on the selection of examiners, whether they should or should not be fellows of the examining body; and whether or not the professors or lecturers on any subject in a school or university should also be examiners in their own subjects, and therefore examiners of candidates who had been their own pupils; and other points; but as most or all of these questions have been made the subjects of special resolutions to be discussed after the reports have been dealt with, we will not treat of them here. The examinations for the diploma of the Faculty of Physicians and Surgeons of Glasgow are held on the second Tuesday of every month, and the visitation was made in August. Unfortunately the second Tuesday in August in 1873 was the 12th, and the visitors had reported that some of the appointed examiners were absent: the representative of the Faculty in the Council offered as their excuse the fact that "if there is one amusement that a Scotchman loves above all others, it is grouse-shooting." Sir William Gull thereupon suggested that it would be a great advantage to have Englishmen examiners in Scotland, as they would not be affected by August the 12th. We are not so sure about that, unless a careful selection was made, for we have known some Englishmen, even in our profession, who were very keen grouse-shooters; and the candidates would object to the change we suspect, for the visitors suggest that perhaps some of the shortcomings they noticed in the examinations might in part be attributed to the absence of the grouse-shooting examiners.

It is noteworthy that during the discussion not a few remarks were to the effect that the questions put to candidates were often too large and too difficult; and Mr. Quain took occasion to express his opinion that men of moderate abilities were being shut out of the profession by "too high an examination at an early period." He had made careful inquiries, which led him to believe that while the population of England and Wales had increased, in the thirty years from 1830 to 1861, from thirteen to twenty millions, the number of medical men had not increased during the same period, and he had good grounds for believing that "the people generally—that is, the artisans, the lowest class of tradesmen, people keeping shops and doing business and having a fair income—cannot get the attendance of practitioners. These are elevated above them in practice, and employed by people who are more wealthy; and people in humble circumstances are obliged to resort to the parish doctor, to the dispensary, and to the hospital." So much, he thinks, is being demanded, that it is beyond the attainment of students of ordinary energy and ability, and large numbers of such men are being excluded from the profession. Without committing ourselves to any opinion on this matter, we may say that we believe Mr. Quain by no means stands alone in his views.

The representative of the Irish College of Surgeons, when criticising the examinations of the Faculty of Physicians and Surgeons of Glasgow, gave his explanation of the reason why such ill-prepared students presented themselves before some examining bodies: "until it was provided that a candidate rejected by one body should not be able by that night's mail to go to another body and procure a qualification," ill-prepared students would present themselves; and he illustrated his remarks by instances of men who had been rejected by his College, and had immediately been passed by "another body."

Sir Dominic Corrigan observed that a candidate had indeed been rejected by "an Irish examining body" for his failure to perform some extraordinary operation, but had "received his qualification from a Scotch body, and had since discharged his professional duties in the most satisfactory manner"; and Dr. Andrew Wood denounced the apparent claim of the Irish College to infallibility: "They were not to be told in Scotland that because the Irish College of Surgeons were unable to appreciate the merits of a man they were not to take up the case. The man to whom Sir D. Corrigan had referred was perfectly competent, but he was rejected upon a very absurd question by the College of Surgeons in Ireland. Was such a man to be precluded from going where his real worth would be recognised?" This little outburst was all the more *ad rem* because the Irish College of Surgeons does not make at all a good figure in the visitors' reports. It is true that the visitors praise where they can; and of the examination of the senior-class candidates they say—"It combines in a very appropriate and advantageous manner a written, an oral, a clinical, and a practical examination; and, if efficiently conducted, it is difficult to conceive that any candidate could pass who had not acquired a thorough knowledge of the foundations of professional attainments." But the "if" is a very big one, for the visitors go on to remark that "No one of the branches of the examination appeared to us to be fully carried out. . . . . The students are hurried in writing their replies to the questions in the written examination, and the examiners are hurried in reading them; while insufficient time is devoted to the clinical and the operative parts of the examination, in neither of which is more than a quarter of an hour devoted to the examination of each candidate." And the whole report on the examinations of this body is anything but complimentary. Dr. Andrew Wood naturally remarked on the startling character of the examinations of "that infallible body who alone were capable of judging of the qualifications of men"; and Sir William Gull was led to say that he thought that "the whole of the examination from beginning to end was as bad as bad could be." He commented upon various passages in the report, and concluded by observing that he "did not think that ever before had anything been brought to the attention of a council of medical men which so painfully showed the utter paltriness of an examination."

The visitors of these examinations were unable to obtain the written answers to the examination questions, though they asked for them, and on two occasions addressed letters to the President and Council of the College, requesting that they might have the papers for perusal. Each time they received only a courteous refusal. To their last request the reply was that "the President and Council of this College will afford every facility to the visitors of the General Medical Council to inspect the written answers to the examination questions at the time of the examination; but it has not been usual in the College to preserve these papers, or to submit them to subsequent inspection,"—which last sentence sounds decidedly "Irish." The representative of the College told the General Medical Council that "the Council of the College, whether rightly or wrongly, were not prepared to change that which had been from time immemorial the usage of the College; but it was possible that, in deference to the opinion of the Council, they might see fit to reconsider their practice." Considering all these things, it is not to be wondered at that the Council resolved—"That the reports of the visitors on the examinations of the Royal College of Surgeons in Ireland be forwarded to the College for its consideration and remarks. The Council has had its attention drawn to the many sources of imperfection in the examinations; and trusts that the accompanying reports of the visitors will receive serious consideration on the part of the authorities of the Royal College; and that in any future visitation, the written papers of the candidates may be preserved and submitted without restriction to the visitors for their perusal."

On Monday, the fourth day of the session, the Council took into consideration, among other things, the reports of the visitors to the examinations of the Queen's University in Ireland. These reports are extremely full, minute, searching, and elaborate, and occupy some 110 pages of the volume of reports. In some respects the visitors pass very high encomiums on the examinations, and Dr. Bennett stated to the Council that "he was deeply impressed with their general excellence, though it was also true that he was surprised at the extraordinarily low qualifications of the persons who presented themselves; but it was clear from the large proportion of the rejected candidates that the examiners were of the same opinion."

It is impossible for us to state here the many matters noticed in these reports. Several things are pointed out as imperfections—as the comparatively short time given for examinations, the meagreness, limited extent, or insufficiency of the examinations in some subjects, and the insufficient number of examiners; but great praise is given for "the general excellence and thoroughness of the examinations, so far as they went." And the second report concludes with the remark, "We feel bound to repeat that the examinations which we witnessed were, within their scope, admirably well conducted and complete, and thoroughly honest." Some members of the Council considered that the attention of the Queen's University ought to be particularly directed to the "defects noticed in the second report in the preliminary examination, and in some of the subjects of the professional examination," but it was generally felt that this might read as a censure on the University, and Dr. Bennett (one of the visitors) said that he did not think that body ought to receive anything approaching to a vote of censure; so the reports were simply ordered to be forwarded to the University "for consideration and remarks." This was the last of the reports to be considered, and on Tuesday—the fourth day of session—"the resolutions of the Council in committee" on the several reports were "adopted by the Council."

During the Monday's sitting, Dr. Aquilla Smith's motion, of which we spoke last week, for a committee to prepare a new edition of the *Pharmacopœia* for 1877, came on, but did not obtain a seconder. Official information was received from the Home Secretary and from the Registrar of the University of London, that that body is "now enabled to fully co-operate in the scheme of conjoint medical examination, which has been approved by the Medical Council." Dr. Storrar gave a history of all that had occurred before the University succeeded in obtaining enabling powers, and expressed the great satisfaction he felt at the removal of all the obstacles that had presented themselves. He was very happy to be able to show that the honour of the University in this matter was now established, "and that they had really taken very extraordinary pains to put themselves right, and to enable all other bodies, who felt inclined, to follow their example." Sir William Gull also congratulated the Council on this result, and announced that "the period for conjoint examinations had at last arrived."

On the Tuesday and Wednesday the Council discussed Sir Dominic Corrigan's motion—"That the draft, as amended, of a proposed Bill to amend the Medical Act of 1858, be adopted." The motion was seconded by Dr. Aquilla Smith, but was negatived by nineteen votes to two. We gave last week a sketch of the Bill. Since then the time of the Council has been occupied in the consideration of various very important propositions founded on the reports of the visitors of examinations, but we must defer all special notice of these propositions till next week. There appears to be a great deal of rather heavy business still before the Council, so that in all probability the session will be a long one.

## BISHOP WORDSWORTH'S SERMON ON BURNING AND BURIAL.

We are sorry that Bishop Wordsworth has been preaching in Westminster Abbey against Sir Henry Thompson's proposition to burn the dead. His lordship is reported to have said that burning would destroy faith in the resurrection. It seems to us a thing to be regretted that a prelate so distinguished for piety, learning, and good sense should bring arguments drawn from theology against a proposition which aims—on chemical and physiological grounds—at preventing injury to life and health. Christianity teaches that the human body must not be defiled by sin, because it will rise again from its state of humiliation in some form of glory for an eternal existence. This differs from the mere doctrine of the immortality of the soul, which the Pagans held, in affirming the resurrection of the body; this it was that was ridiculed by the Athenians when preached by St. Paul; and this faith it was which was held fast by the ancient Christians, even when their heathen persecutors gave the bodies of martyrs to be devoured by beasts, or burned them and scattered their ashes to the winds and waters,—for they trusted in the power of their faithful Creator. Whether in the nineteenth century the faith of Christians is so flimsy that it cannot stand this test, is not for us to argue.

Whoever upholds burial against burning—and we are not amongst the converts to the latter process—should be prepared to get rid of what is objectionable in the present burial system; and until the representatives of the great ecclesiastical bodies have done all that is possible in this respect, they have little right to object to any other mode of disposing of the dead. For they allowed the dead for centuries to be heaped up around and within the churches, close to the dwellings and water-supply of the living, where corpses and coffins were allowed but a short repose, and the most sacrilegious indignities were committed in order to make room for fresh burials; and when the system, in more senses than one, stunk in the public nostrils, it was the clergy who denied the existence of any grievance and opposed reform. To do them justice, the Dissenters—or perhaps private speculators in burial-grounds who assumed the name—were much worse. But it was to a humble surgeon in Drury-lane, Mr. George Alfred Walker,—not to any ecclesiastic,—that we owe the abolition of the old town churchyards, places where the utmost indecency in the treatment of the dead was combined with the greatest nuisance to the living.

If we may summarise the various modes of dealing with the dead, they are,—First, allowing them to be devoured by animals. This is an act of religious duty among the Parsees, the representatives of one of the oldest religions in the world. It is done to perfection at Bombay, in the "Towers of Silence," in which the dead Parsees are laid out to be devoured by the fowls of the air. It is said to be really the mode of consumption of the human remains in the public cemeteries of Naples and some other Italian cities. Here the visitor is shown a large paved space surrounded by a cloister. At intervals over the pavement are seen iron rings, by which certain of the stones may be raised, and of these there are at least 365. Each stone covers the mouth of a pit, and into these by turn, day by day, at sunset, are tumbled the corpses of all who die without private means of burial. At the end of a year, when it is the turn of each pit to be opened for a new set of tenants, there remain only a few bones; and it is generally believed that rats and cockroaches are the agents in the consumption and oxidation of the flesh. This is, as Sir Henry Thompson has pointed out, the fate of bodies buried at sea, and of those swept down by the sacred Indian rivers to feast the alligators. In hot countries, crabs, rats, and the like, find food in the shallow graves.

Secondly.—The next method is the Catacomb, such as is familiar enough at Naples, Rome, and elsewhere. The true type of a catacomb is a passage tunnelled in *porous* stone with recesses on either side, within which the bodies were laid and enclosed by a slab. There the products of decomposition were slowly absorbed and oxidised, leaving a few of the bones in a half-pulverised state, to adorn the museums of the ethnologist or the reliquaries of the devout.

One most prevalent, but most odious, mode of disposing of the dead—falsely called burial—is that of deposition in artificial catacombs or vaults and mausoleums. This bad practice was in vogue amongst the ancient Egyptians, who further mummified the bodies so as to render them incorruptible. The same practice was adopted more or less by the Jews, and handed down to ourselves; and anyone who thinks of the masses of coffins still stored underground in London, and daily accumulating in the suburban cemeteries, may shudder as he thinks of the vast legacy of putrescence which we are bequeathing to posterity.

Thirdly.—The next method is that of burning, which, if practised as described by Sir Henry Thompson, in one of Siemens's furnaces (which Faraday in his last Friday evening discourse at the Royal Institution described, when at full work, as a thing of beauty and glory), would doubtless be free from the reproach of sending smoke, tarry matter, or any other offensive matter into the air. Nothing would escape but carbonic acid, ammonia, and water. But we would observe that these are amongst the products which are making the London air still more and more unbreathable every day. What with emanations from the well-ventilated (!) sewers, from the dust-heaps in the areas of houses, from the rotting dung and mud that cover the streets, from the breath of the people, from factories of all sorts, and, above all, from the smoke which hangs like a visible pall over London—dark, hot, and murky in summer; dark, gray, cold in winter,—our lives depend on such a sweep of wind as shall carry this atmosphere ever onwards. If it stagnates, as it did in last winter's fogs, people die palpably and outright of it. We speak in ignorance of the details of the cremation proposal, but protest that even the purest carbonic acid, ammonia, and water are no fit additions to the London air.

Fourthly.—The next method is that of burial—true burial,—so as to fulfil the Almighty's sentence, "Dust thou art and unto dust shalt thou return"; "Then shall the dust return to the earth as it was." This implies that the body shall be really "committed to the ground," to undergo the process of dissolution which nature ordains, with every circumstance of reverence and decency, but with nothing to hinder the return to dust. But, to render burial perfect, the soil must be qualified to absorb and retain the gases of decomposition, not to allow them to escape into the air; moreover, it must be such as not to oppose the decay of the coffin and its contents.(a)

When one speaks of "Cremation *versus* Burial," it must not be forgotten that burial, in the case of most well-to-do people, is not burial at all, but mere deposition in a brick grave, vault, cellar, or other receptacle made to imitate a catacomb. Here the object is, not to let the body return to the dust as it was. It is all very well to throw earth on the coffin three times, at the awful words, "Earth to earth, ashes to ashes, dust to dust"; but as soon as the ceremony is over, the undertaker brushes the dirt off the crimson velvet and gilt nails that cover the mahogany coffin, that encloses a leaden coffin, inside which the deceased reposes in a shell lined with white

(a) We know of a case in which a country burial board applied for leave to buy fresh land to enlarge their cemetery. One motive for this was that the population is increasing and the land rising in value, and that by waiting they might have to pay more dearly. But besides, the coffins are so slow to decay that the ground cannot be disturbed for fresh interments so soon as was calculated. To meet this difficulty the board were advised to bury some wood inoculated with dry rot, or some rich garden mould along with the coffins, to hasten their decay.

satin. The remains of the rich man are not committed to the ground, but are protected from all contact with it; and if the Bishop would inveigh against the luxury and pride that dictate this form of so-called burial, he would find few to gainsay him.

## THE WEEK.

### TOPICS OF THE DAY.

The Select Committee of the House of Commons appointed to inquire into the operation of the Adulteration of Food Act, 1872, have issued a lengthy and very elaborate report. They are of opinion that the Act has done much good; it has at the same time inflicted considerable injury and imposed heavy and undeserved penalties on several respectable tradesmen. This appears to be owing mainly to the want of a clear understanding as to what does and what does not constitute adulteration, and in some cases to the conflicting opinions and inexperience of the analysts. They are of opinion that the Act itself is defective, and needs amendment. The Act has been by no means generally adopted. It appears that in only twenty-six boroughs and thirty-four counties have appointments of officers been made; while the number of boroughs under the Act is 171, and of counties fifty-four; and even where appointments have been made, its operations have been most restricted. The Committee state that though the number of prosecutions and convictions have been very small, the deterrent effects are undoubtedly great; and they are of opinion, with the promoters of those proceedings, that the most beneficial effects of the Act will be to prevent adulteration rather than to punish it. The Committee then proceed to comment on various articles of food, and give first an elaborate account of the manner in which tea is coloured or adulterated. The evidence goes to prove that in what is termed "the colouring of tea" no deleterious matter is used to such an extent as to be absolutely injurious to health; but, at the same time, that facing may be employed to conceal the bad quality of tea. They have reason to believe that very little adulteration of tea is practised in this country. After some observations upon the extent to which facing might be regarded as not amounting to adulteration, they recommend, in order that injustice may not be inflicted on grocers and others, in consequence of the mode in which prosecutions are now carried on, that an examination of tea for the purpose of detecting impurities should be undertaken on landing by the Customs, and that all tea found to be seriously adulterated should not be admitted for home consumption. This, the Committee are informed by the highest authority, can be easily done. If this step be taken it will relieve the retail dealer from the hardship which now arises from his being held answerable for certain manipulations of which he may be wholly ignorant.

Previous to the passing of the Act, milk was generally adulterated with water, but where the Act has been enforced the milk has improved in quality; but this result has not been achieved without, in a certain proportion of cases, serious injury and injustice being inflicted on milk-sellers. The Committee, moreover, admit the difficulty of fixing a standard for the quality of milk, and think that allowances should be made under the various circumstances which influence the quality of milk from different cows, and from the same cows at different times. These circumstances appear to have been occasionally overlooked by some purely scientific chemists. The Committee are of opinion that the fraudulent abstraction of cream should be punishable; at the same time they consider the sale of skim-milk should be encouraged, as it is certainly a nutritious and valuable article of food, but they are unanimously of opinion that the sale of skim-milk for new should decidedly be regarded as a punishable offence.

Some sensible and very apt remarks on the grievances of the British army doctors and the recent Warrant, which has in no way improved their prospects, are given in *Indian Public Opinion* of May 26 last. After detailing with some precision and force the heavy score of grievances now existing against the Government, the writer observes:—

"The prospects of British army doctors are at present gloomy in the extreme, but with Sir William Muir as Director-General there is yet hope of reform. He has gained his own point in holding out for £1500 a year salary, after it had been actually reduced to £1200 by Mr. Cardwell, late the soldiers' friend; and I am much mistaken if he will disappoint expectations and abandon the cause of his brother officers, now that his position gives him the power of doing them a good turn. What is really required is the introduction of a liberal scale of pensions to enable men who are anxious to start practice in private life to retire before becoming actually decrepit. No one without private means can afford to retire on the paltry sums now offered, and consequently everybody clings on until forced by the fifty-five or sixty-five year rule, as the case may be, to quit the service. Many men would gladly accept a commutation of pension, say, after fifteen or twenty years' service, by receipt of a liberal sum down in the form of a bonus, thus creating a healthy flow of promotion in the service, and removing the growing discontent amongst the officers, which sooner or later must force itself on the attention of the authorities."

Amongst the Civil List pensions granted during the year ending June 20 last, we are glad to notice the following:—Mrs. Georgiana Gordon Coote, widow of Mr. Holmes Coote, in consideration of her husband's medical services, especially during the Crimean war, and of her own labours as lady superintendent of the Smyrna Hospital, £50. Professor Thomas Rymer Jones, F.R.S., in consideration of his services to science as late Professor of Natural History and Comparative Anatomy at King's College, £50. Mr. Thomas Steel Livingstone, in recognition of the value of his father's geographical discoveries in Central Africa, £50. Mr. William Oswell Livingstone, in recognition of the value of his father's geographical discoveries in Central Africa, £50. Miss Anna Mary Livingstone, in recognition of the value of her father's geographical discoveries in Central Africa, £50. Miss Agnes Livingstone, in recognition of the value of her father's geographical discoveries in Central Africa, £50. Dr. Sharpey, F.R.S., Professor of Anatomy and Physiology in the University of London, in consideration of his great services to science, £150.

In an article of considerable intelligence and force in the *Pioneer Mail* of the 10th ult., on "Highland Homes for European Soldiers," the writer observes that fresh vitality seems lately to have been imparted to the scheme for the establishment of European troops in hill-stations. Sanitary measures have acquired an impetus, more especially since the Mutiny; and it has been recognised that very much of the mortality attributed purely to climate, and regarded as inevitable, has in a great measure been due to sins against the elementary laws of physiology and hygiene. Experience has proved that the climate of the Indian plains is not adapted to the European constitution—witness the mortality among children, the deterioration in physique and mental powers of a second generation, and the almost entire absence of a third. The one remaining hope is to remove the European, and place him in a climate approaching as nearly as possible that of his native country. This can only be done by sending him to the hills. The necessities of a cantonment, in a military point of view, having been as accurately as possible determined by military authority, then let all the remaining men not required to garrison it be drafted to a more genial climate. In the Himalayas, at points corresponding to nearly all our large cantonments, sites are, we believe, available. An elevation of 5000 or 6000 feet, if procurable, is sufficient. It is found that at this elevation there is a mean temperature a few

degrees above that of England; malarious fevers have rarely been known to be generated at an elevation above 4000 feet, and then the marsh miasm has probably drifted up gullies from the lowlands. The prevalence of rains and fogs at this height has been urged against its adoption, but it is very doubtful whether, with proper precautions, these are as detrimental to health as is generally believed. By selecting a spur projecting well from the higher ranges, or a plateau if possible, this drawback is reduced to a minimum. Great care should be exercised in deciding on sites, and the opinions of experienced engineers and medical officers ought to be obtained. It would be well to appoint a standing board to make a complete sanitary survey of the lower Himalayas, and report on sites considered most suitable. This having been done, and the experiment fairly established, it remains to be seen what the effect on the health of the British soldiers will be? We venture to believe that it will be a marked one, and that the statistics of mortality and inefficiency will be sensibly reduced. Service in India will be shorn of some few of its dangers and discomforts, and rendered more popular. And should any sudden emergency arise calling for their services, the troops will in every way be more fitted to respond to the call than if drawn from barracks in the plains.

The completed portion of the Delancey Fever Hospital, Cheltenham, was formally opened on the 15th ult. Miss Delancey left some years since £5000 for the purposes of a fever hospital. With this amount, and other benefactions and subscriptions received—the result of an appeal to the public—the trustees of the fund purchased a plot of six acres at Pilley, Leckhampton-hill, and commenced the present building. The accommodation contemplated by the trustees when the whole scheme is carried out, is for fifty patients—ten small-pox, thirty scarlatina, and ten typhoid, for each of which types of fever a separate block will be provided, with an additional two wards, should the funds permit of it, for typhus. The completed portion of the undertaking consists of the small-pox block; the laundry and disinfecting block, giving sufficient accommodation for the whole hospital when built; a small mortuary; and a drying shed. The cost of the whole of the remaining work will not exceed £5000. The new building seems to have been planned with great judgment and skill. Such an example should be followed in every district in the kingdom.

The Medical Officer of Health of the Jarrow Local Board in his last report drew attention to the extraordinarily large mortality of children under five years of age, there having been during the month thirty-four deaths. This great mortality in many cases, it was observed, was greatly owing to the intemperance of the parents.

Dr. Harry Leach, Medical Officer of Health to the Port Sanitary Committee of the London Corporation, reported to the committee last week that no epidemic disease of any kind existed at that time within the district of the Port Sanitary Authority.

A meeting, convened by advertisement, of the friends and former pupils of the late Dr. Frederic Bird, was held in the Board-room of the Westminster Hospital to consider the establishment of a memorial to one who for many years held the appointment of Obstetric Physician to the Hospital, and Teacher of Midwifery in the Medical School. It was unanimously determined that the memorial should take the form of a prize, exhibition, or scholarship, in connexion with the Westminster Hospital Medical School. An influential committee was appointed, with Mr. Cowell as honorary treasurer, and Dr. Potter as honorary secretary.

After long service as Assistant-Surgeons, Mr. Rouse and Mr. Cowell were promoted by the governors of the Royal Westminster Ophthalmic Hospital, at their annual meeting on the 3rd inst., to the rank of full Surgeon.

It will gratify many of our readers to learn that Dr. J. Bell Pettigrew, F.R.S., the Lecturer on Physiology at Surgeons' Hall, Edinburgh, has been reported as meriting one of the prizes awarded by the French Academy of Sciences, Paris, for physiological discoveries.

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### THE EFFECTS OF THE LATE SHAM FIGHT AT CHOBHAM UPON OUR SOLDIERS.

There is no doubt that the rumours of the disastrous consequences attending the sham fight last week at Chobham, from the heat of the weather, have been greatly exaggerated. Only one fatal case from sunstroke has been reported, although it cannot be denied that the men generally suffered very severely from the oppressiveness of the day; but lest our readers should imagine that the British soldier had upon this occasion been asked to do something almost beyond his powers, we give the details. On Tuesday, General Smyth's Brigade marched from Aldershot to Colony End, a distance of barely eight miles, and there encamped. On the same day, Prince Edward of Saxe-Weimar's division proceeded to Chobham, about four miles farther than Colony End, where they also encamped. On the following day (Wednesday), the sham fight commenced about 5 o'clock p.m., and lasted an hour and a half, when both sides encamped on the ground. However hot the weather, the amount of work above specified cannot be called excessive. It is said that both commanders unnecessarily exposed their men, more especially during the Wednesday, when the two armies were formed up under a baking sun for some hours before the sham fight actually began; but still no one can imagine that the two days' work indicated bears the faintest proportion to the amount of real fatigue which would have to be encountered in actual war. In fact, the Summer Manœuvres are conveying the first practical warnings to our rulers of the inefficiency of our army composed as it at present is. Our youthful recruits and growing boys pass muster tolerably well as long as the slightest strain upon them is avoided, but the instant that the smallest exceptional duty devolves upon them, they collapse from inferior physique and sheer inability to keep up. The control waggons were largely employed on the return march to Aldershot for the conveyance of those who fell out, and of the number who did so the bulk were youths.

If we be wise in time, we should lay these lessons to heart, and endeavour by all sorts of inducements to make our army service popular. The Commander-in-Chief and other great authorities unhesitatingly assert that compulsory service is quite out of the question in this country: it may be so at the present time, but if armaments are to be kept up all over Europe in increased strength, as has been the case in nearly every state during the last fifteen years, sooner or later we *must* come to it, or sink out of our position through sheer inability to hold our own.

The great increase in the rate of wages in every branch of industry has left the pay of the soldier a long way in the rear. In former days a farm labourers' lock-out such as those of the present year would have filled the surrounding depôts with the very article required—stalwart, muscular, and enduring men,—something worth drilling from slouching rustics into solid soldiers. At this moment these very men are leaving the country for the colonies, and the recruiting-sergeant secures none of them; the inducements held out are not sufficiently tempting, and we lose the class of recruit whose forefathers made our reputation. We must bid against other large employers of labour for the best men, and bid liberally, or we shall not get them for soldiers, and when the country has reached the maximum sum which it can afford to pay, the days of compulsory service will not be far off. One general after another (all of high standing in their profession) has

lately endeavoured to eall attention to the deficient stamina of the British army of the present period. On paper our land forces may be up to the requisite number, but such lessons as are inculcated by the late sham fight at Chobham should rouse all thinking men from a state of apathy and false confidence, and bring about vigorous reforms where it is evident they are only too much needed.

### PRIVATE SLAUGHTER-HOUSES.

On the 10th inst. a deputation, consisting of the Council of the Society of Medical Officers of Health, had an interview at the Home Office with Sir H. Selwin-Ibbetson, in the absence of Mr. Cross, on the subject of the Slaughter-houses, etc. (Metropolis), Bill. The deputation included Dr. Letheby, President; Drs. Tripe, Dudfield, Tidy, Hardwicke, Iliff, Stevenson, Ross, Mr. Liddle, Mr. Harry Leach, and Drs. Vinen and Corfield, secretaries. Dr. Letheby, Dr. Tripe, Dr. Dudfield, and Mr. Liddle described the evils of the present system of slaughter-houses. Their experience led them to consider existing slaughter-houses as public nuisances which ought to be abolished, and public abattoirs erected in their stead. Various objections to the Bill before Parliament were pointed out, and several amendments proposed; the chief of these were—the addition of blood-boiler and bone-boiler to the list of businesses proposed by the Bill to be absolutely prohibited; the inclusion of manufacturers of artificial manure, fish eurers or smokers, boilers of pigwash, marine store dealers, gut spinners, fried fish sellers in section 3, which proposes that certain trades shall be carried on only under by-laws to be made by the Metropolitan Board of Works. The necessity for stringent and comprehensive by-laws was pointed out, which should provide not only for regulating the conduct of any business specified in the Bill, but also for the proper situation and construction of a slaughter-house. They urged that greater powers should be given to vestries and district boards than is contemplated by the Bill; and that the gradual extinction of private slaughter-houses, and the erection of public abattoirs, should be provided for in accordance with the recommendations of the Parliamentary Committee, 1873. Sir H. Selwin-Ibbetson, in reply, said that he was not satisfied as to the expediency of closing all slaughter-houses, and that the Bill would be proceeded with, but that the framing of the by-laws would receive special attention. At Sir Henry's request, the amendments suggested by the Society have since been forwarded to the Home Office, and been specially acknowledged.

### WORSE THAN ADULTERATION.

Whatever opinions may prevail as to the utility or otherwise of the Adulteration Acts, there can be no question that activity and energy on the part of sanitary inspectors in carrying out their official duties during this almost tropical weather, especially as regards the quality of food sold in the poorer districts of the metropolis, are attended with inestimable benefits to the public. A case in illustration came before the magistrate at the Worship-street Police-court on Monday, the details of which are simply sickening. It appears that on the 1st inst. the Chief Sanitary Inspector of Hackney visited the premises of a Mr. Cousins, who carries on an extensive business as a wholesale manufacturer of sausages at the Duncan Steam Works, Hackney. He there found a large quantity of beef which smelt strongly of "physic," twenty pieces of which were afterwards condemned by the Medical Officer of Health as unfit for human consumption. One of the pieces, when cut into, disclosed a large abscess from which matter exuded and ran down the meat. In his evidence Dr. Tripe, Medical Officer of Health for the district, said that the smell from the meat was so horrible that he became quite sick. A hind-quarter of beef was horridly loathsome and disgusting—more so than anything he had ever seen. In all his experience of dissecting-rooms, in all the places he had ever been in, he had never smelt so horrible a smell as that from the meat in question. It was said that if the officers had not arrived on the premises just when they did, the whole of the meat would, in a few minutes, have been put into the steam machines, and converted into sausage-meat. The case was adjourned for a fortnight, in order that the defendant might produce witnesses in his favour.

### MR. LE GROS CLARK ON THE STATUS OF THE COUNCIL OF THE COLLEGE OF SURGEONS.

In our account of the festival of the Fellows of the Royal College of Surgeons, which appeared exclusively in this journal last week, we were unable to publish the excellent observations of Mr. Le Gros Clark, who has since been elected President of the College. The missing notes having since been found, we are sure the Fellows not present on that occasion will be glad to know that the high standard required for the Fellowship will not be relaxed, as will be seen from the following *verbatim* speech of Mr. Clark, in response to the toast of the "Medical Corporations." He said:—

"My first duty, sir, is to express my regret, in which all the eompany must participate, that the President of our College is prevented by indisposition from being here this evening, to respond for himself and for the Council which he represents. If he were present I am sure he would congratulate the Fellows on the continued estimation in which the diploma they possess is held; and I may venture to add, as a member of the Court of Examiners, that I trust the high standard of qualification for that distinction which we think it our duty to maintain, will always be sanctioned by your approval and sympathy. Much has been said respecting the honour of occupying a seat at the Council Board, as an incitement to seek that distinction. It is no doubt an office of high honour; but it also has its grave responsibilities and duties; and I trust that all who aspire to it will be influenced by a higher and nobler motive than the gratification of personal ambition. The welfare and dignity of our College are dependent on the character of the Council; and the character of the Council is determined by the conscientious exercise of their elective privileges by the Fellows. I should be glad if the Council and its constituents could meet oftener than on these festive occasions, as I feel confident such intercourse could only tend to strengthen the cordial feeling and mutual confidence which I hope will always exist between us."

This suggestion and the speech generally were received with great applause; and now that Mr. Clark has been so deservedly elected President of the College, it is hoped that, in eonjunction with his colleagues, means will be taken to carry out such desirable meetings.

### THE SECRETARY OF STATE FOR WAR AND THE ARMY MEDICAL DEPARTMENT.

In answer to a question addressed to him in the House of Commons the other evening by Mr. G. Browne, the Secretary of State for War announced that it was not at present his intention to issue a new Warrant for the Medical Department of the Army. Mr. Hardy admitted that he had received many deputations and memorials on the subject; and he might have added that his uniform reply to such deputations has been, that the present state of the Army Medical Service was under consideration, and that the inconsistencies eomplained of were being investigated. Of course much might be done to modify those portions of the present Warrant which cause so much dissatisfaction throughout the Service without actually issuing a new one; but we fear, from the Secretary of State for War's reply, that no very radical changes are eontemplated in the scheme as it now stands—a fact which, if true, is the more to be regretted, as the opportunity afforded to Mr. Hardy was a rare one for putting the Medical Service of the Army on a better footing, and doing away with a large amount of discontent which the unpopular legislation of his predecessor

had occasioned in the minds of the profession. However, as the question of the difficulty of obtaining medical officers for the navy will doubtless lead to an improved Warrant for the sister service, it may be that the medical service of both army and navy will be remodelled at the same time—and, let us hope, at no distant date.

### PROFESSOR HUXLEY ON WOMEN DOCTORS.

Miss Jex-Blake having publicly complained that her examination on a recent occasion was not fairly conducted, Professor Huxley, in the absence of one of her examiners, states that her papers were submitted to him and he considered them insufficient in merit to entitle her to pass. He says in his letter to the *Times* on the subject :—

"As Miss Jex-Blake may possibly think that my decision was influenced by prejudice against her cause, allow me to add that such prejudice as I may labour under lies in the opposite direction. Without seeing any reason to believe that women are, on the average, so strong physically, intellectually, or morally as men, I cannot shut my eyes to the obvious fact that many women are much better endowed in all these respects than many men, and I am at a loss to understand on what grounds of justice or public policy a career which is open to the weakest and most foolish of the male sex should be forcibly closed to women of vigour and capacity. We have heard a great deal lately about the physical disabilities of women. Some of these alleged impediments, no doubt, are really inherent in their organisation, but nine-tenths of them are artificial—the products of their mode of life. I believe that nothing would tend so effectually to get rid of these creations of idleness, weariness, and that 'over-stimulation of the emotions' which, in plainer-spoken days, used to be called wantonness, than a fair share of healthy work, directed towards a definite object, combined with an equally fair share of healthy play, during the years of adolescence: and those who are best acquainted with the acquirements of an average medical practitioner will find it hardest to believe that the attempt to reach that standard is likely to prove exhausting to an ordinarily intelligent and well-educated young woman."

### CULPABLE SUPINENESS OF THE LINCOLN TOWN COUNCIL.

The long-vexed question of adopting a system of sewerage for the city of Lincoln was again the subject of an animated discussion at the meeting of the City Council on the 7th inst. We are sorry to find that this sanitary improvement in the city is to be still further delayed. On behalf of the Special Sewerage Committee, the following resolution which they had passed was submitted to the meeting for adoption :—

"That Messrs. Lawson and Mansergh, the engineers appointed by the Council for the purpose, be instructed at once to proceed with the preparation and completion of the necessary plans for carrying out the system of sewerage already agreed on by the Council, in accordance with the requirements of the Secretary of State and the Local Government Board; and that they also be instructed to advertise for tenders from persons willing to undertake the execution of the works."

On the motion being seconded, the following amendment was proposed and seconded, and ultimately carried by a majority of nine to three :—

"That whilst the members of the Council are fully conscious of the zeal, intelligence, and industry which the Special Sewerage Committee have displayed, they beg to refer back to the Committee, for further consideration, the subject which the said Committee had before them, in order that after consultation with their engineers, and ascertaining the *present* views of the authorities in London with respect to the disposal of sewage, the Committee may be able to inform this Council and the citizens generally of the mode in which it is proposed to deal with the Lincoln sewage when collected into one or more reservoirs, in order that steps may be taken to avoid the heavy expenditure which has fallen upon other towns in consequence of the hasty adoption of costly schemes which afterwards have had to be abandoned."

It appears that a scheme of drainage was brought before the city authorities so long as eight or ten years ago; that from that time to this deputations and committees had been visiting almost every one of the large towns in Great Britain, that the Council might have every information and guidance. The supporters of this amendment—nine in number—incur a grave responsibility. They, ostensibly, want to find out a *perfect* system of sewerage—a thing which is unattainable. Their fellow-citizens will, we hope, urge the authorities to do their duty, and not be satisfied till these sanitary measures be thoroughly carried out. It is high time that this silly dilly-dallying with a great public question should be put a stop to It is disgraceful to the Lincoln Council that they should have so long neglected their duty.

### EGGS AS AN ARTICLE OF FOOD.

The increased consumption of eggs as an article of diet in this country in the last few years induces us to call attention to a law passed by the State of Massachusetts. The sale of this wholesome and nutritious article of food is to be made by weight. A dozen of eggs is henceforth to weigh a pound and a half. Inferior eggs must be made up to the standard, and very superior eggs will not always count twelve to the dozen. It seems that the present system of marketing by number is not only unjust as to quantity, but unfavourable to quality. The eggs of well-fed, highly bred fowls are heavier, size for size, than those of inferior fowls indifferently fed. Hence the sale of eggs by weight will be a premium on the improved breeding and feeding of fowls of all varieties. It is surprising, considering the nutritious quality of the egg and its comparative cheapness to other articles of diet, that the consumption is not much larger in this country. At the present time, when beef and mutton are selling on the average at 1s. per lb., a dozen good eggs can be obtained for the same money. Properly cooked, with suitable additions, a good meal for a small family could be provided. It is somewhat remarkable that the lower orders in this country are profoundly ignorant of the economic art of cooking. It is to be hoped that the lectures of Mr. Buckmaster will do much to remove this ignorance. We some time since published in this journal an elaborate article, showing the various ways in which eggs might be used with advantage amongst the lower orders. This article was reprinted on a very extensive scale by an eminent firm of egg importers, and no doubt with a good result.

### THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The annual meeting of the above Society was held on the 8th inst., when the following officers were elected for the ensuing year :—*President :* Dr. Letheby. *Vice-Presidents :* Drs. Hardwicke, Gibbon, and Stevenson. *Treasurer :* Mr. Liddle. *Honorary Secretaries :* Drs. J. N. Vinen and Corfield. *Council :* Drs. Adams, Baylis, Bond, Dudfield, Iliff, Jones, Tidy, Tripe, Ross, and Woodforde; Messrs. Harry Leach and Jacob.

### COUNTERBLAST AGAINST THE MIDDEN SYSTEM.

Mr. S. W. North, Medical Officer of Health for York, thus speaks in his report to the Urban Sanitary Authority of the "midden system" :—

"The midden system (which, by the way, is now being actively introduced into Manchester) pollutes the air, pollutes the soil by soakage, is offensive to the eye and nose, is offensive in the process of removal, and to no important extent preserves the purity of rivers. The pail system is well-nigh free from the more serious objections to the midden system, but it necessitates a large staff, the money value of the manure is doubtful, and it does not preserve the purity of rivers. The water-closet system removes excrementitious matters promptly, before there has been time for decomposition, and, as a result, the atmosphere about houses is free from foul stinks, which are universal where middens predominate; the danger from gaseous emanations is far less than with middens; the liability to injury by frost may to a great extent be obviated by proper construc-

tion; while, accepting the view that all municipal authorities ought to scavenge towns, the water-closet system is a less charge on the public funds than any other method."

Surely there must be some deficiency in the mode of carrying out the midden system, as mentioned above. At all events, the present knowledge on the matter will hardly warrant Mr. North's "counterblast" against it.

### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At a meeting of the Council, held on the 9th inst., Mr. Frederick Le Gros Clark, F.R.S., Consulting Surgeon to St. Thomas's Hospital, and formerly Hunterian Professor of Surgery of the College, was elected President, and Sir James Paget, Bart, F.R.S., D.C.L., Serjeant-Surgeon Extraordinary to her Majesty, and Mr. Prescott Gardner Hewett, F.R.S., Surgeon Extraordinary to her Majesty, and senior Surgeon of St. George's Hospital, were elected Vice-Presidents.

### DISEASE AND DEATH IN LINCOLN.

The House-Surgeon of the Lincoln General Dispensary, in his monthly report to the Committee last week, gives the following unsatisfactory statement of the health of the patients:—He says he regrets that the number of deaths during the past month is in excess of that of the same period last year, and exceeds considerably that of the preceding month. This he conceives to be due to the sudden change of temperature during the middle—15th and 16th—of the month, which proved fatal to three patients who had been seriously ill for a long time. The admissions of patients suffering from scarlet fever have been throughout the month weekly on the increase. The cases have been generally of considerable severity, and in two instances death ensued. There are at present no evidences of an abatement of the fever—319 patients are on the books. It may be fairly asked to what extent the imperfect and disgraceful state of the sewers of the city of Lincoln is the cause of this serious mortality.

### BELFAST LUNATIC ASYLUM.

Dr. Robert Stewart, Medical Superintendent of the Belfast District Hospital for the Insane, in the forty-ninth report, from January 1 to December 31, 1873, states that the general health of the inmates during the year was very satisfactory. No epidemic or contagious diseases occurred among them during that period. Twenty-three deaths were recorded as the mortality, fifteen males and eight females; 126 were discharged, and there remained under treatment at the close of the year 210 males and 164 females; total 374.

### PARLIAMENTARY.—FACTORIES (HEALTH OF WOMEN, ETC.) BILL—SANITARY LAWS AMENDMENT BILL—MILITIA MEDICAL OFFICERS' GRIEVANCES—ADULTERATION OF FOOD—VACCINATION ACT AMENDMENT BILL—SLAUGHTER-HOUSES—PUBLIC HEALTH (IRELAND)—REGISTRATION OF BIRTHS AND DEATHS.

In the House of Lords, on Thursday, July 9,

Lord Beauchamp moved the second reading of the Factories (Health of Women, etc.) Bill, which had been brought up from the House of Commons. He referred to former legislation on the subject of factory labour, which, he said, had operated beneficially without unduly interfering with the course of trade; and he said that the present Bill tended more particularly to improve the health of children and women employed in factories, and was calculated to lead to a final settlement of the controversy. Lord Shaftesbury spoke in favour of the measure as providing for women and children a limitation of the hours of labour. The Bill was then read a second time.

In the House of Commons,

Mr. Sclater-Booth, on the order for going into Committee, explained some of the clauses of the Sanitary Laws Amendment Bill. It was proposed that the Local Government Board should have power to obtain a writ of mandamus, with the view of compelling reluctant local authorities to execute works which were considered necessary. There was an important clause, giving power to local authorities to obtain from the magistrates an order to prevent the use of wells, pumps, and cisterns which were considered unhealthy. The question of the water supply, Mr. Sclater-Booth added, was becoming an urgent one for the whole country, and perhaps before long Government would be able to propose some general provisions for improving the quality of water supplied to our large towns.

The Slaughter-house Bill was read a third time.

Mr. Hardy, in reply to Sir E. Wilmot's question with regard to vacancies in the medical staff of militia regiments, said that all appointments had been suspended until the regulations with respect to the status and pay of militia medical officers had been settled. The Government would award compensation to those surgeons who had suffered any loss in consequence of the new regulations.

On Monday, July 13,

Mr. Sclater-Booth, replying to Mr. R. Hill, said that, in consequence of the large number of witnesses examined before the Adulteration of Food Committee, it would be impossible to legislate on the subject this year.

Mr. Hardy, in reply to Mr. G. Browne, said it was not at present his intention to issue a new Warrant for the Army Medical Department.

In the House of Lords, on Tuesday, July 14,

Lord Walsingham moved the second reading of the Vaccination Act (1871) Amendment Bill, the object being to remove doubts as to the power of the Local Government Board to make rules with respect to the proceedings to be taken by the guardians or their responsible officers for the enforcement of the provisions of the Vaccination Acts of 1867 and 1871. At present the vaccination officer, though the servant of the guardians, must take proceedings to enforce compulsory vaccination of all infants, even though the board of guardians which he represents may for the time being be influenced by the representations of the Anti-vaccination League. The vaccination officer has no funds at his disposal wherewith to prosecute objecting parents, and, although the guardians were empowered to pay these expenses, he had no means of recovery in case of refusal, and the Local Government Board had no means of enforcing obedience. The object of this Bill was to get rid of these anomalies. The Bill was then read a second time.

The Factories Bill, with a few amendments, passed through the Committee of the House of Lords.

In the House of Lords, on Thursday, July 16, the Committee was to sit on the Vaccination Act Amendment Bill, and the Slaughter-houses Bill was to be read a second time.

In the House of Commons, the Queen's consent to the Sanitary Laws Amendment Bill was to be signified, and the Public Health Bill for Ireland as amended was to be considered. The Committee was to sit upon the Registration of Births and Deaths Bill.

## FROM ABROAD.

### Case of Catalepsy in a Man.

On account of the rarity of this in the adult male, we transcribe the particulars of a case from the March report of the Milan Ospedale Maggiore, which has been published in the *Annali Universali di Medicina* for June.

Antonio Silva, aged forty-five, a priest, was engaged early in the morning of March 8 in performing religious service in the Cathedral, when in a short time, and without any occasional cause having been in operation, he was seized with excessive shivering, which was soon followed by loss of motor power and unconsciousness. He remained for some hours in the church as immovable as a statue, and was then transported to the hospital. Flying sinapisms were applied, but the insensibility continued two hours longer. The extremities were exceedingly cold, as was the face, accompanied by cyanosis; general tremors recurred at long intervals; the pulse was 72 and regular, and the temperature was 37½ C.; the limbs continued in the positions in which they were placed, however unnatural these might be; the pupils were immovable, and the cutaneous anæsthesia was complete. During auscultation, the vesicular murmur could not be heard, nor could the ingress and egress of air be distinguished, the movements of expiration and inspiration being so very limited, the latter being somewhat more prolonged than the former. In place of the

normal sounds there was perceptible a harsh, continuous, indistinct noise resembling the buzzing sound to be heard by applying the ear to a wooden table. The patient had a large, ill-conditioned ulcer of the leg.

About ten hours from the commencement of the paroxysm, the pupils still continued immovable, and the patient was still unable to articulate; but the respiration, although slow, furnished the normal sounds to auscultation. Speech returned only the next morning (about twenty-four hours after the attack), and then the patient gave coherent answers to questions with some difficulty. He stated that he retained no remembrance of his attack after the sense of cold seized him, nor of his transport to the hospital. No other paroxysm followed this one, but the patient was seized with delirium on the second day of his admission, and eventually became insane.

### Removal of Opacity of the Vitreous Body by the Electrical Current.

M. Le Fort, in a paper read at the Académie de Médecine on July 7 (reported at length in the *Gazette des Hôpitaux* of the 9th), described the success which, in two cases of blindness due to opacity of the vitreous body, had attended the permanent application of feeble continuous electrical currents. One of these occurred in 1872, and the other in 1874, sight being recovered in both in five or six weeks by the use of a current derived from only two pairs of elements, applied at first permanently, and afterwards only at night. These cases have occurred during a series of investigations he has been engaged in for the past two or three years, having for their object the substitution of the continuous current, feeble in degree, but permanent in operation, for energetic and temporary currents in the treatment of paralyses, muscular contractions, and lesions of nutrition. Encouraged by the success of these cases, he is now trying this therapeutical procedure in other lesions of nutrition, such as cataract, atrophy of the papilla, etc.; but his observations are as yet too recent to warrant more than directing attention to the subject. He believes, however, that this substitution is indicated in paralysis with atrophy, and wherever we desire to exert a continuous action on the functions of an organ.

### Change of Wet-Nurses.

Professor Bouchut, lecturing upon this subject at the Hôpital des Enfants Malades (*Gazette des Hôpitaux*, July 7), made some interesting observations upon the indications furnished by the weight of the sucking infant. When an infant ceases to acquire weight, as ascertained by the scales, it becomes necessary to change the nurse; and in reference to this subject M. Bouchut sums up the results obtained by himself and various observers from weighing numerous infants at different periods.

1. *The Weight of the New-born Infant.*—This varies between 3 and 4 kilogrammes, although Merriman records an instance of 7 kilogrammes, while weights as low as $1\frac{1}{2}$ or 2 kilogrammes have been met with, but then the mother has been ill or the infants were premature. Boys weigh a little more than girls, and the infants of women who have already borne children also generally weigh a little more than the infants of primiparæ. Other circumstances influencing the weight are the height of the parents, their constitution, and the accidents of pregnancy. Thus, while parents of dwarf-like stature may produce infants weighing only 1 kilogramme, others of gigantic proportions have them weighing $4\frac{1}{2}$ kilogrammes. Feeble and lymphatic women, suffering from anæmia or chlorosis, and marrying delicate and spare men, have children which do not weigh more than 2 or 3 kilogrammes. Strong and vigorous subjects may, on the other hand, give birth to very heavy infants, causing difficult labour. Professor Bouchut refers to the practice of an accoucheur who, whenever he had reason to fear this inconvenience, put the mother on short diet, with advantage, during pregnancy. Frequent and abundant vomitings in pregnancy may give rise to a great diminution in the weight of the infant; and thus a lady of habitual good health, who suffered much from this cause, produced a child weighing only $2\frac{1}{2}$ kilogrammes. Scrofula and especially syphilis also may reduce the weight; and the latter especially, if it does not cause the death of the infant at an early period, reduces it to a weight sometimes of not more than 2 kilogrammes. Hæmorrhage occurring during pregnancy, when not very considerable or frequent, does not exert any appreciable influence on the weight; but when it is very abundant, the infant may lose 1 or 2 kilogrammes. According to Foisy, the existence of varices during pregnancy causes some diminution of weight.

2. *Loss of Weight in New-born Infants.*—Since Chaussier's observations on the subject all observers have admitted that new-born infants, with few exceptions, lose weight during the first days of their existence. For the first day the loss varies from 30 to 100 grammes, and it may continue for several days; but in general after the third day the weight again increases until it rapidly recovers the original amount. No positive conclusions as to the amount of these losses can be drawn from observations made in hospitals and maternities, or on infants brought up in bad hygienic conditions, or born of destitute mothers. In private life, among children well taken care of, the quantity of milk taken is much larger than is the case in hospitals, and the loss of weight is less considerable. The causes of this loss may be either physiological or pathological. Among the former are the evacuation of the meconium, estimated at from 60 to 90 grammes; the evacuation of from 10 to 15 grammes of urine soon after birth; the pulmonary and cutaneous transpiration, estimated at 50 or 60 grammes; and the small quantity of liquid taken by the infant during the first day. Of the pathological causes may be indicated (1) debility at birth in children who are born prematurely or so small that they have not the strength to drink or suck, and very rapidly become cold. (2) The icterus which is so common in infants, and which, when it is very considerable, is dependent upon disease of the liver or umbilical vein, impeding nutrition. (3) The various forms of accidental infantile disease, by retarding the progress of nutrition and assimilation, may give rise to loss of weight, which, if prolonged, may endanger life. To these causes may be added imperfect lactation, due either to the bad quality of the milk or ill-formed nipples. The infant does not get enough milk, and sleeps at the breast instead of sucking; and if it is not weighed before and after suckling, it may be thought to have sucked, while it has really taken little or nothing, and may perish of inanition.

3. *The Growth of Infants at the Breast.*—After the infant has passed the period of the early decrease of weight, its increase should be progressive, and where this is not so the nurse should be changed. As long as the child sucks vigorously without sleeping at the breast, and increases daily by 20 or 30 grammes during the first five months, and 10 or 15 during the next seven, the nurse should be kept. If it loses weight, or remains stationary, a change is called for. This can only be determined accurately by a weekly weighing. As the result of this we ought to find that it increases at a mean of 175 grammes per week, and that at five months of age the infant weighs twice what it did at birth. After then it increases only at the rate of 105 grammes per week, so that when it is sixteen months old its weight will be only double of that which it was at five months. Some infants gain much less than this, and yet are in excellent condition. The important thing is that there is a gain of some grammes per diem. The quantity of milk taken at each sucking is found by weighing the infant to amount to from 80 to 100 grammes, and whenever it does not attain 50 grammes the nurse is insufficient. According to Bouchard's results, obtained at hospitals, the child should imbibe 630 grammes per diem in the first month, 700 in the second, 840 in the third, and 950 in the fourth. Professor Bouchut finds these results inferior to those which he has himself obtained in civil practice in infants brought up under good hygienic conditions. But they form a sufficient guide to the practitioner in the question of changing nurses; and he should lay down as an absolute rule that if the infant does not progressively increase in weight, and does not take a sufficient quantity of milk at each sucking, the nurse ought to be changed. In case of illness of the nurse, when this is only slight and temporary, there is no need of interference; but when it is prolonged, and of a nature to affect the milk, change is necessary. Whenever such a change has been determined upon, the nurse should not be informed of it until the moment when the substitution of the new one can be put into force.

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The Berlin University.—According to the official statement, the decline in the number of the students observed of late years has come to an end. The entire number of these matriculated amounted in the present summer session to 1609, as compared to the 1590 of the last summer. However, the Medical, like the Theological Faculty, still exhibits a decline, there being only 299 medical students this summer, as compared with the 340 of last summer.—*Berlin. Klin. Woch.*, June 22.

# MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 14th inst., and when eligible will be admitted to the pass examination :—

Anderson, Charles Morton, University College.
Angove, William Thomas, St. Bartholomew's Hospital.
Blake-Marsh, William Gustavus Hermann, Bristol.
Brown, Francis Wheeler, London.
Burrows, William Seymour, St. George's Hospital and Cambridge.
Brumwell, Ernest, London.
Evans, William Thomas, Edinburgh.
Flood, Francis Pulteney, Leeds.
Freer, Edward Luke, St. Mary's Hospital.
Gadsby, John Tottenham, University College.
Hodgson, George Goodfellow, Liverpool.
Howard, Cecil William Lucy, St. Mary's Hospital.
Lloyd, James Hellings, St. George's Hospital.
Munro, Archibald Campbell, Edinburgh.
Naylor, Charles George Robinson, Calcutta.
Newton, Richard Arthur, Birmingham.
Pilkington, Henry, Liverpool.
Sellers, Richard Burdett, Manchester.
Thomas, William, Liverpool.
Wollerton, Edwin Goodburn, Glasgow.

Sixteen candidates failed to pass.

At the same meeting of the Court, the following gentlemen, who had passed in Surgery at previous meetings, and who had since obtained medical qualifications, were admitted Members of the College, viz. :—

Bott, Wm. Gibson, L.R.C.P. Edin., Kennington-park-road, S.E.
Hobbes, Charles Edward, L.R.C.P. Edin., Bidford.

The following gentlemen passed on the 15th inst., viz. :—

Abraham, Laurence, Dublin.
Badcock, George Sainthill, Charing-cross Hospital.
Brindle, Robert Francis, Manchester.
Bruce, Robert, St. Bartholomew's Hospital.
Cuming, Charles Henry, University College.
Davies, Richard, Birmingham.
Denton, Arthur Henry, Edinburgh.
Foster, James, Newcastle and St. Thomas's Hospital.
Francis, Ernest George, University College.
Gardner, John Twiname, Guy's Hospital.
Green, Harry, Birmingham.
Hancock, Charles James, St. Bartholomew's Hospital.
Holberke, Arthur Oliver, Birmingham.
Latour, George Lewis, Cork.
Lees, Clement, Birmingham.
Mogg, J. W. O., Birmingham.
Pratt, Walter, Birmingham.
Potts, Lawrence, Charing-cross Hospital.
Qualtrough, William John, Edinburgh.
Richardson, Thomas Arthur, Guy's Hospital.
Sutton, Edward, Charing-cross Hospital.
Townson, William, Liverpool.
Welchman, Henry Palmer, Charing-cross Hospital.
Williams, Neville, Cambridge.
Young, Arthur, King's College.

Nineteen candidates were referred to their studies for three months.

*Examinations.*—The following were the questions on Anatomy and Physiology submitted to the candidates at the primary examination for the diploma of Member of the Royal College of Surgeons, on Saturday last, viz. :—1. Enumerate the muscles employed in the act of deglutition ; and state whence each muscle derives its nervous supply. 2. Describe the structure of arteries, the properties they possess during life and after death, and the influence they exercise upon the circulation. 3. Describe the first dorsal vertebra; and state with precision what are its peculiarities. 4. Describe the structure of an intestinal villus, and the changes which have been observed in it during the act of absorption. 5. Describe the course and relations of the innominate veins; and mention the veins which directly terminate in each. 6. Upon what evidence is our knowledge of the functions of the anterior and posterior roots of the spinal nerves founded ?

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 9 :—

Davies, John, Westminster Hospital.
Hay, William Alfred Edward, Bridport, Dorset.
Heald, George Henry, Leeds.
Hitchins, Thomas John, Plymouth.
Lyddon, William Reeks, Clapham.
Newton, William Thomas, Laken-heath, Suffolk.

The following gentlemen also on the same day passed their primary professional examination :—

Kyngdon, Frederick Henry, London Hospital.
Cotton, Herbert, Guy's Hospital.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

FAIRCLOTH, JOHN, M.C., M.D., M.R.C.P. Lond.—Physician to the General Infirmary, Northampton, *vice* John Henry Webster, M.D., resigned.

## MILITARY APPOINTMENTS.

WAR OFFICE.—MEDICAL DEPARTMENT.—Deputy Surgeon-General John Bent, to be Surgeon-General, *vice* George Stewart Beatson, M.D., C.B., deceased; Surgeon-Major Thomas Esmonde-White, M.D., C.B., to be Deputy-Surgeon-General, *vice* John Bent; Surgeon Charles Edward Smith, M.D., to be Surgeon-Major, *vice* Thomas Esmonde-White, M.D., C.B.; Surgeon-Major William Jasper Rendell retires upon temporary half-pay.

## BIRTHS.

DALBY.—On July 11, at 18, Savile-row, W., the wife of W. B. Dalby, B.A., M.B., F.R.C.S., of a son.

GROSVENOR.—On July 10, at 121, Ladbroke-grove, Kensington-park, W., the wife of George Fox Grosvenor, M.D., of a son.

JONES.—On July 9, at 3, Brighton-parade, Blackpool, Lancashire, the wife of Leslie H. Jones, M.D., of a son.

POWELL.—On July 8, at 15, Henrietta-street, Cavendish-square, the wife of Douglas Powell, M.D., F.R.C.P., of a son.

## MARRIAGES.

FLEMING—ENO.—On July 8, at the parish church, Winlaton, J. N. Fleming, M.D., Newcastle-on-Tyne, only son of Joseph Fleming, Esq., of Papcastle, Cumberland, to Laura, eldest daughter of J. C. Eno, Esq., Beda Lodge, Blaydon-on-Tyne.

FRASER—CHARLESLY.—On June 4, at Christ Church, Galle Face, Colombo, Ceylon, Angus Fraser, of the Oriental Bank Corporation, Colombo, to Blanche Anne, eldest daughter of W. P. Charlesly, M.D., M.R.C.S., Principal Medical Officer and Inspector-General of Hospitals, Ceylon.

HARDING—WEATHERHEAD.—On July 13, at Trinity Church, Tunbridge Wells, Francis Henry, son of J. F. Harding, F.R.C.S., of Tunbridge Wells, to Katharine Eliza (Katie), eldest daughter of Alfred Weatherhead, Esq., of Southgate.

PRICE—LEMPRIERE.—On July 11, at St. John's Church, Southend, Thomas Charles Price, Captain Royal Artillery, son of the late Lieut.-Colonel Price, H.E.I.C.S., to Amy Earle, eldest daughter of C. M. D'A. Lempriere, M.R.C.S. Eng., of St. Kilda, Melbourne, Australia.

## DEATHS.

DODD, ELIJAH, M.R.C.S., L.S.A., of 38, Studley-road, Clapham, at Brighton, on July 11, aged 68.

SINCLAIR, JOHN HARTLEY, M.D. Edin., late Staff-Surgeon Army Medical Department, at his residence, 12, Marine-square, Brighton, on July 10, aged 70.

WILLIAMS, GEORGE HARVEY GRAHAME, younger son of Harvey Williams, M.D., at Rhyl, North Wales, on July 11, aged 21.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BUCKINGHAM INFIRMARY.—Resident Surgeon and Apothecary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, George Fell, Esq., Solicitor, Aylesbury, on or before August 4.

BURNLEY UNION.—Medical Officer of Health. Candidates must be legally qualified medical practitioners and registered under the Medical Act of 1858. Applications, with testimonials, to A. Stanley Dean, Poor-law Offices, Nicholas-street, Burnley.

EAST LONDON HOSPITAL FOR CHILDREN, RATCLIFF-CROSS, E.—Assistant Visiting Physician. Candidates must be duly qualified. Applications, with testimonials, on or before July 30.

GENERAL INFIRMARY, NORTHAMPTON.—House-Surgeon. Candidates must be duly qualified. Also an Assistant to the House-Surgeon. Applications, with testimonials, to the Secretary, on or before July 18.

HENDON UNION.—Medical Officer. Applications, with testimonials, to Mr. W. A. Tootell, Clerk, Edgware, on or before July 29.

KINGTON UNION.—Medical Officer for the New Radnor District. Candidates must be duly qualified. Applications, with testimonials, to the Clerk of the Union, on or before July 24.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to James Houghton, Esq., Treasurer, at the Hospital, on or before July 22.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, E.C.—Honorary Assistant-Physician. Applications, with testimonials, to the Committee of Management, on or before August 4.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-UPON-TRENT.—House-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before July 22.

ROCHDALE INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Mr. Ernest E. M. Rodys, Clover Cottage, Rochdale.

Royal Orthopædic Hospital, 315, Oxford-street, W.—Surgeon. Candidates must be F.R.C.S. Applications, with testimonials, to the Secretary, on or before July 22.

Stockport Infirmary.—Assistant House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to S. W. Wilkinson, Honorary Secretary, on or before July 22.

West Norfolk and Lynn Hospital, Lynn.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Weekly Board, on or before July 18.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

*Driffield Union.*—The Frodingham District is vacant; area 12,410; population 2183; salary £23 per annum.

*Hungerford Union.*—The Great Bedwyn District is vacant; area 22,179; population 3922; salary £83 3s. per annum.

APPOINTMENTS.

*Epping Union.*—Trevor Fowler, L.K. & Q.C.P.I., L.R.C.S. Ire., to the Thoydon Bois District.

*Wellington (Salop) Union.*—Wm. T. Hawthorn, M.R.C.S. Eng., L.S.A., to the Second District and the Workhouse.

SUPERANNUATION ALLOWANCE.

*Strand Union.*—Mr. Benjamin Brookes has, after thirty-eight years' service as a District Medical Officer, been awarded a retiring allowance of £80 a year.

Ovariotomy.—At a recent meeting of the Société de Chirurgie, M. Panas introduced the subject of ovariotomy as considered in its ultimate results. At present, he says, it is considered sufficient to take into consideration whether the ovarian disease is capable of being removed by operation. The nature of the tumour as regards ultimate prognosis is overlooked, and the consequence is that in several instances this is malignant, and the same sequelæ are observed as in patients who undergo operations for cancer in other regions. M. Koeberle entirely agrees with M. Panas that this point is too much overlooked in these operations, and MM. Verneuil and Boinet related instances of malignant recurrence.—*Union Méd.*, June 13.

Injection of the Hydrochlorate of Quinine into the Trachea in Malignant Intermittent Fever.—M. Jousset related two cases in which he performed this operation, the patients seeming in a very desperate state. He passed the trocar of the hypodermic syringe into the trachea at nearly a finger's breadth below the cricoid cartilage, and injected, drop by drop, six drachms and a half of the solution (one part to ten) of the hydrochlorate. In the second case, occurring in a child twelve years old, three drachms and a half were injected. The cases, which seemed quite hopeless, speedily improved, and both patients did well. M. Jousset recommends the practice of tracheal injection whenever desired to act rapidly and energetically, as it is attended with no pain or ill-effects, and is very easily performed. It would especially seem to be indicated in cholera, hydrophobia, and tetanus.—*Gazette Médicale*, July 4.

On placing the hand over the cardiac area, in many people with thin chest-walls, we can distinctly perceive the alternate movements of auricular and ventricular systole, with each corresponding diastole; and, of course, we can also readily appreciate any pathological change in their movements. Great increase in their force indicates hypertrophy; but a diminution of that force is by no means to be regarded as a certain indication of atrophy, dilatation without hypertrophy, or even of cardiac debility from any cause,—though it may be a sign of one or other of these phenomena, as well as of great pericardiac effusion, pulmonary emphysema, or even simple thickening of the thoracic walls. In many of these cases, especially in pericardiac effusion, but more or less in all, the cardiac shock may be rendered perceptible to the hand, by causing the patient to sit up and lean well forwards. In this case, the readiness with which it can be appreciated, and the position in which it is felt, must be carefully noted. Forcible pulsation above the fourth rib, and within the cardiac area, may possibly be aneurismal, but most commonly depends upon dilatation and hypertrophy of the appendix of the left auricle. Forcible pulsation chiefly to the left of the cardiac area below the fourth rib, with depression of the apex-beat, indicates dilatation and hypertrophy of the left ventricle; while pulsation beneath the lower part of the sternum, with disappearance of the apex-beat, reveals dilatation with or without hypertrophy of the right ventricle, the extent of dilatation being to some extent measurable by the amount of epigastric pulsation, the degree of hypertrophy being denoted by the force of the pulsation. When the whole heart is hypertrophied and dilated, a more or less violent shock may be felt over the whole of the cardiac area; and where the hypertrophy is great, the shock may be double—the first forcible and systolic, the second less forcible and diastolic,—the result of the rebound of the enlarged heart from the posterior thoracic walls.—"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874).

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Celsus.*—Next week.

*Madras.*—Annesley, "Sketches of Diseases of India," p. 491, etc.

*Morbid Fancies.*— "Tell me where is fancy bred,
Or in the heart, or in the head?"—*Shakespeare.*

*Philip N., Norfolk.*—In his work on Nubia and Abyssinia, the Rev. Michael Russell says—"The common distempers, with the exception of small-pox and measles, are not usually dangerous. But the small-pox is the most destructive complaint known in Abyssinia. Tape-worm is universal throughout Abyssinia, in Europeans as well as natives, but there is a plant called *casho* which is a certain cure for the disorder."

*Martin F.*—1. May, 1873. 2. A record of cases of death from cancer in Paris, from 1830 to 1840, shows that the disease was seated in the uterus in 2906 cases, in the stomach in 2303, and in the breast in 1149.

*C. J. S.*—*London Journal of Medicine*, vol. ii. 1850, p. 589 and 928.

*Dr. Y.*—The first accurate account of acute hydrocephalus which appeared, was that by Dr. Whytt in a posthumous work published in 1768, entitled "Observations on the Dropsy of the Brain."

*A Provincial Fellow.*—In another page you will find a report of Mr. Clark's speech. Your suggestion that the College of Surgeons should give, alternately with the sister College of Physicians, a *conversazione*, should be made to the President of the College.

*M. G., St. George's.*—The pass examination for the diploma of Membership of the College commenced this day (Friday).

*Dr. S.*—You should apply to the local assessor of taxes. The duty on a carriage and horses payable by a physician, surgeon, or apothecary is less than in the case of a private gentleman.

*Silber's Lights.*—Two things are to be considered: one is that the gas be completely burned, the other that the gas should be free from sulphur compounds. When gas is burned, as it commonly is, at a high pressure, so that large quantities are freed through the burner in a given time, there is no doubt that part is imperfectly consumed, and converted into the dark sticky stuff which clouds the interior of the lamp-glasses, and forms a sordid varnish on ceilings, walls, furniture, etc. This evil may be mitigated by perfect combustion. But if the gas contain sulphur, then, be the gas burned ever so perfectly, that sulphur must be oxidised and converted into sulphurous acid, which does its own special damage to books and furniture. Pure gas, perfect combustion, and adequate ventilation to carry off the combustion-products, are alike essential.

### A Correction.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In to-day's edition of your paper I see you have reported my name among the successful candidates at the primary examination at Apothecaries' Hall as Edward Manley Rodwell, instead of which it should be Edward Manby Rodwell. Will you kindly correct the mistake?

Charing-cross Hospital, July 11. I am, &c., E. M. Rodwell.

### Fancy as a Guide to Diet in Illness.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you kindly allow a lady to ask whether in many cases of illness it might not really be more conducive to a patient's recovery if medical men would allow a little more of the old nurse custom of "giving them what they fancy"? Is not the fancying anything, when appetite there is none, rather a guiding criterion that, in that special case, the fancy might be granted? In illness very strange things are sometimes fancied; and yet, if given, do not injure the patient. And I have known them allowed by eminent practitioners with benefit. Dr. Erasmus Darwin, so celebrated a physician of past days, allowed a young consumptive lady with a bad cough toasted cheese because she fancied it, and it agreed with her; and the late Dr. Robert Darwin, of Shrewsbury, was indulgent to sick fancies. In the case of a young lady in a prolonged low fever, who made no progress, I knew an eminent physician called in, who, on hearing that there was a fancy for meat, suggested to the young doctor in prior attendance, "I think as this is the case we may allow it." Of course assent was given, though reluctantly, for the younger man afterwards remarked that he had never known meat allowed "with such a tongue." The young lady, however, mended from the time she took it. I am not pleading for *pressing* food, but for *allowing* such persons' fancies either in taking or rejecting it. And I venture to suggest whether what nature prompts in either way would not perhaps be allowed by science, if medical men could but know, in individual cases, the *cause* of disease which, in quite different constitutions, is taking the same aspects, and yet requiring different treatment—requiring to be treated for the removal of the cause originating disease, and not primarily for the aspects which the disease is assuming. Therefore, may not what suits one case as to regimen be injurious or repulsive to another suffering from the same complaint, not the same cause?

I am, &c., H.

*An Old Practitioner.*—Wadd gives the following on "jockey-doctors":—That when George the Second went to Newmarket races he made several Doctors of Physic. These, by way of joke, were called "jockey doctors." The Archbishop of Canterbury has the power of creating M.D.'s, but rarely exercises the power; they are called "Lambeth doctors." The L.K.&Q.C.P.I. does not, as we have stated before, entitle the holder to sign "M.D." after his name; he is only "Dr." by courtesy.

*An Aural Surgeon.*—You will find an account of the person mentioned in Mr. Clarke's interesting "Autobiographical Recollections," page 358. A notice is preparing for publication. Messrs. J. and A. Churchill.

*J. McC., Devonport.*—Dr. Brown-Séquard's prescription for insomnia is—℞. Potass. bromid. 3vj., aquæ distillat. ℥v. Three teaspoonfuls before dinner and four at bedtime, with a little wine and water. The Doctor considers it a most valuable remedy.

*Mr. Thompson.*—The operation for popliteal aneurism was first done by John Hunter in 1785. The preparation was deposited a few years since in the Museum of the College of Surgeons.

*M.R.C.S., Highgate.*—Mr. F. Le Gros Clark, F.R.S., President of the College, will deliver the next Hunterian Oration.

*Mr. Jackson.*—A cast and drawing of the enormous spleen removed from a lady by Mr. Spencer Wells during life may be seen at the College of Surgeons. The spleen was considered by the ancients as the seat of *mirth*, and the liver the organ of love—"Splen ridere facit, cogit amare jecur." Was the lady in question a *very* jolly creature? We suspect not, with *such* a spleen.

COMMUNICATIONS have been received from—

Mr. H. Broomley, Bewdley; Mr. G. R. Rodwell, London; Mr. J. Highet, Troon; Mr. Bailey Denton, London; Dr. Edwards-Crisp, London; Junius; Mr. G. Gaskoin, London; Dr. Skues, Dalhousie; L.K.Q.C.P.; Dr. D.; Mr. J. A. Paddock, London; Messrs. Fairless and Beeforth, London; Dr. B. Cunyngham, Edinburgh; Mr. W. H. Flower, London; Mr. W. Spencer Watson, London; Dr. Dudfield, London; Mr. J. Dexter, London; Mr. J. Chatto, London.

BOOKS AND PAMPHLETS RECEIVED—

Farquharson on Therapeutics—Rich on the Sewage Question—Tables on Materia Medica—Papers on Leprosy, by C. Lisboa—A Vaccination Controversy—Annual Address delivered before the Philadelphia County Medical Society, by W. Atkinson, M.D.—De l'Homme, Principes de leur Application aux Climats Sud-Est et du Sud-Ouest de la France, par Sir Alexander Taylor, M.D.—Reports of the Medical Officer of the Privy Council and Local Government Board, New Series, No. 1.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Students' Journal and Hospital Gazette—Food, Water, and Air—Women and Work—Lincolnshire Chronicle—Pioneer Mail—Manchester Evening News—Journal of the Scottish Meteorological Society—Centralblatt für Chirurgie—Allgemeine Wiener Medizinische Zeitung—Gazette Médicale—Gazette Hebdomadaire—La France Médicale—Journal de Médecine et de Chirurgie—Gazette des Hôpitaux—La Tribune Médicale—Bulletin de l'Académie de Médecine—Echo de la Presse Médicale—Berliner Klinische Wochenschrift—L'Union Médicale Le Progrès Médical—Sunderland Times—New York Medical Journal—Canada Lancet—Boston Journal of Chemistry—Revista Medico-Quirúrgica—Irish Hospital Gazette.

## APPOINTMENTS FOR THE WEEK.

*July* 18. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

20. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

21. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

22. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

23. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

24. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, July* 11.

### BIRTHS.

Births of Boys, 1149; Girls, 1046; Total, 2195.
Average of 10 corresponding years 1864-73, 2013·5.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 675 | 618 | 1293 |
| Average of the ten years 1864-73 | 681·5 | 629·4 | 1310·9 |
| Average corrected to increased population | ... | ... | 1442 |
| Deaths of people aged 80 and upwards | ... | ... | 36 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 3 | 1 | 2 | 5 | ... | 2 | ... | 23 |
| North ... ... | 751729 | ... | 6 | 10 | ... | 7 | 2 | 5 | 1 | 32 |
| Central ... | 334369 | ... | 5 | 7 | ... | ... | 2 | 1 | 1 | 19 |
| East ... ... | 639111 | ... | 2 | 20 | ... | 5 | 2 | 2 | 1 | 31 |
| South ... ... | 967692 | ... | 7 | 5 | ... | 11 | 2 | 2 | ... | 17 |
| Total ... ... | 3254260 | ... | 23 | 43 | 2 | 28 | 8 | 12 | 3 | 122 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·953 in. |
| Mean temperature | 66·8° |
| Highest point of thermometer | 92·0° |
| Lowest point of thermometer | 47·5° |
| Mean dew-point temperature | 53·3° |
| General direction of wind | Variable. |
| Whole amount of rain in the week | 1·32 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 11, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre, (1874.) | Births Registered during the week ending July 11. | Deaths Registered during the week ending July 11. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2195 | 1293 | 92·0 | 47·5 | 66·8 | 19·33 | 1·32 | 3·35 |
| Portsmouth ... | 120436 | 26·8 | 65 | 37 | ... | ... | ... | ... | 0·19 | 0·48 |
| Norwich ... ... | 82257 | 11·0 | 42 | 26 | 88·0 | 47·0 | 63·5 | 17·50 | 0·00 | 0·00 |
| Bristol ... ... | 192889 | 43·3 | 121 | 84 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 54 | 36 | 86·3 | 46·1 | 63·7 | 17·61 | 0·00 | 0·00 |
| Birmingham ... | 360892 | 43·0 | 289 | 143 | 85·3 | 48·3 | 62·9 | 17·17 | 0·40 | 1·02 |
| Leicester ... ... | 106202 | 33·2 | 69 | 41 | 83·4 | 46·0 | 62·4 | 16·89 | 0·00 | 0·00 |
| Nottingham ... | 90894 | 45·5 | 60 | 33 | 86·7 | 44·3 | 63·4 | 17·44 | 0·04 | 0·10 |
| Liverpool ... ... | 510640 | 98·0 | 427 | 297 | 73·8 | 51·0 | 59·9 | 15·50 | 0·00 | 0·00 |
| Manchester ... | 355339 | 82·8 | 260 | 180 | 84·0 | 48·0 | 62·2 | 16·78 | 0·00 | 0·00 |
| Salford ... ... | 133068 | 25·7 | 122 | 73 | 82·1 | 45·3 | 60·2 | 15·66 | 0·00 | 0·00 |
| Oldham ... ... | 86281 | 18·5 | 71 | 36 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 153 | 82 | 76·2 | 46·9 | 60·5 | 15·83 | 0·03 | 0·08 |
| Leeds ... ... | 278798 | 12·9 | 213 | 139 | 80·0 | 49·0 | 61·3 | 16·28 | 0·04 | 0·10 |
| Sheffield ... ... | 261029 | 13·3 | 168 | 120 | 84·0 | 49·5 | 62·1 | 16·72 | 0·30 | 0·76 |
| Hull ... ... ... | 130996 | 36·0 | 116 | 56 | 84·0 | 44·0 | 60·3 | 15·72 | 0·32 | 0·81 |
| Sunderland ... | 104378 | 31·6 | 59 | 32 | 83·0 | 48·0 | 64·4 | 18·00 | 0·07 | 0·18 |
| Newcastle-on-Tyne | 135437 | 25·2 | 95 | 74 | 72·0 | 44·0 | 57·0 | 13·89 | 0·00 | 0·00 |
| Edinburgh ... ... | 211691 | 47·8 | 125 | 68 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 408 | 270 | 68·8 | 46·2 | 57·3 | 14·05 | 0·10 | 0·25 |
| Dublin ... ... | 314666 | 31·3 | 177 | 154 | 76·4 | 43·1 | 60·5 | 15·83 | 0·59 | 1·50 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5289 | 3274 | 92·0 | 43·1 | 61·7 | 16·50 | 0·20 | 0·51 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·95 in. The highest was 30·13 in. on Monday morning, and the lowest 29·78 in. on Saturday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# MEETING OF THE GENERAL MEDICAL COUNCIL.

Held at their House, Oxford-street, W.

Sixth Day.—Wednesday, July 15.

The Council resumed at two o'clock.

DRAFT OF PROPOSED BILL TO AMEND THE MEDICAL ACT OF 1858.

After a few remarks from Dr. Stokes and Sir Dominic Corrigan, the Council negatived the motion.

CERTIFICATES OF EXAMINATIONS.

Dr. Humphry moved—"That the Council recommend that, in the case of certificates presented before admission to the examinations of the several licensing bodies, each should include a statement from the teacher or teachers that the candidate had satisfactorily attended examinations from time to time held on the subject of study to which the certificate relates." He said that one of the most serious questions arising with respect to these visitations, and one which demanded immediate attention, was the want of qualification in the candidates. In one instance the visitors said—"We cannot conceive that these gentlemen could have been tested properly, otherwise they would not have been allowed to go for a licence." That view was confirmed by the number of rejections that took place at the examinations, which amounted to not less than one-third of the candidates presenting themselves. Numerous rejections at examinations had a tendency to exercise a seriously demoralising effect upon students. It became an habitual thing to be rejected at the examinations, and they looked upon it without any apprehension or without that serious anxiety which ought to be felt by every student presenting himself for examination. The phrase came to be common among them—"I can but be plucked and then present myself again." He thought that called for serious examination on the part of the Council. The real cause of these rejections and of the antecedent unpreparedness depended first and mainly upon the fact that in the early period of their education the students misused their time, and all teachers felt that if they could but have some power by which this could be remedied it would be one of the greatest boons which could be conferred upon them and upon their students; but at the present time the teacher had no power to insure that his students worked; he had no power even to compel a student to show that he had made a fair use of his time. He could bring his steeds to water, but he had no power to compel them to drink, or to prove that they had drunk. No greater benefit would be conferred on students than the passing of some regulation which required that the teacher should have the power of assuring himself that throughout the period of his studies the student was making the best use of his time. The very best mode of teaching was that which was associated with examination, and there was no really good consecutive teaching without it. When he himself was a student at St. Bartholomew's there was one gentleman who adopted the plan of constant examinations upon his lectures; but when the signal for examination appeared, which signal was a skull placed upon the table, two-thirds of the students immediately disappeared. The fact was that most of those who disappeared were the very students whom a teacher was most anxious to keep. At Cambridge he had been in the habit of making class examinations a very serious element in his teaching, commencing every lecture with a short examination which lasted ten minutes; but the greater part of the students kept away till that objectionable period was over, and he had no power to compel them to come. When the candidates were seated at the examination-table of that University, he could generally tell better than the examiners themselves which of those gentlemen ought to pass and were likely to pass their examination and which ought not, and he very rarely found that those who had submitted themselves to the class examinations were rejected. He wished for some means by which he would be able to assure himself that the students were working, and that they were attaining that amount of knowledge which might be reasonably expected from them, but at the present he had not that power. Good advice fell like water on a duck's back upon the men whom they were most desirous to have present. The men who did come to the examinations were the very pupils with whose presence he could dispense, because he was quite sure that they were good working men. He remembered very well that on two or three occasions students asked him whether he could not continue that plan throughout the whole course, but that was impossible. Of course there were some objections, because there was no pure good in this world, but he did not see the evil that could accrue from what he recommended. Some teachers might say that it would be throwing an additional work and responsibility upon them, but he thought almost all teachers would say that they would gladly accept this responsibility and this additional work. There was a gentleman present in the room who was a teacher of the largest class in the United Kingdom, if not in Europe, and he was sure that there was no harder work that he had to do than that of conducting examinations thoroughly well; nevertheless, he did it, and would undoubtedly be glad that some authority of the kind intimated by the motion should be given to him. Then it might be said that it would be giving to the teacher the power of forbidding a student presenting himself at an examination. That would be to a certain extent the case, because the certificate would be that the student had shown a fair amount of knowledge from time to time at the examinations. One gentleman had said to him that he thought it ought to be a *sine quâ non* that the teacher thought a candidate was fit to present himself. The resolution, however, did not go so far as that. He thought there ought to be the utmost latitude that was compatible to the enforcement of some regulation of this kind.

Dr. Parkes seconded the motion.

Dr. A. Smith said he must vote against it, because there had been a general expression of opinion in the Council that it was not desirous to interfere too much with the mode of education, but that it should simply lay down general rules applicable to the mode of teaching. He thought many people would laugh at the Council if they passed such a resolution as this.

Professor Turner said that as a means of encouraging students to present themselves at the examinations, the Senatus of his university adopted a system of giving certain certificates of honour or medals. Under the old system in which he was educated, a class examination was always held at the end of the winter session, and every student was at liberty to go in for that examination; but very few did, because the only men who reaped any reward for attending such an examination were the two or three best men who got prizes or honorary distinctions. Therefore, it was thought desirable that honorary distinctions should not be limited to the two or three. The students knew very well who were likely to come out first or second, and they said—"What is the use of our going in?" But when they gave to others who did not take the first or second places certain honorary recognitions, a stimulus was given to the whole class to present themselves for examination. If there was a good tone about a school—if students were led to see, from the commencement of their studies, that it was the habit of that school not to stroll about the dissecting-room with their hands encased in gloves, but that the students went into the dissecting room and did the work before them—that spirit operated upon the entire school for good. He felt that this power of moral suasion ought not to be forgotten in connexion with this question; but still they should always bear in mind that they could not keep stupid men out of the classes. Stupid men attempted to enter the medical profession just as they attempted to enter other professions, and by no system which could be adopted could they secure that these stupid men would make a respectable figure. Certificates should vary in their quality, as they did in the University of Edinburgh. There was one form of certificate which expressed that a man had been a very regular attendant; it bore upon its face the exact number of times during which the student had been present, and, if certificates were to be of any value, they should express what a student had done in connexion with a particular department of study. All the certificates he issued upon the subject of practical anatomy expressed not only the number of times a student had been engaged in dissection, but the number of parts he had dissected, and the degree of care with which he had done his work. They required all the students to present certificates drawn up in this form before they were admitted to examination, and they also required that students educated in anatomy in other schools should present certificates drawn up in a similar form. But what was the result? They found that many students could not get such certificates, because the

schools did not keep so accurate a record of what their students did. Since the year 1846 an accurate record had been kept in the University of Edinburgh of the name of each student, of precisely what he had done, and the mode in which he had done his work. These were most important elements in a system of education, and he mentioned them to the Council as matters for their consideration.

Dr. Storrar thought the speech of Professor Turner was a most valuable contribution to the consideration of the question. He should not attempt to follow him in urging the vast importance of class examination, but he wished to point out one difficulty in Dr. Humphry's motion, which was that the tendency of it was to divide the responsibility of testing the fitness of a candidate between the final examiner and the teacher. During the whole period that had elapsed since he was a student, he was constantly hearing complaints made by teachers of the mistakes committed by examiners, and it was not unreasonable to suppose that there might be discrepancies of opinion between teachers and examiners; but if they were to delegate any portion of the responsibility of testing the fitness of a student to a teacher, they would to that extent relieve the examiner of responsibility. His great desire was to make the examiners a class of men far better qualified for their duties than they had hitherto been, and to throw the responsibility entirely upon them.

Sir William Gull thought that examinations which were entirely written examinations were bad. The great need was that they should have practical examinations, because many students, when they came to the practice of medicine, showed that they were utterly ignorant, and did not know anything about the practical bearing of the work. He took it for granted that Dr. Humphry referred to oral examinations on the matter in question, and not written examinations. The motion was good in quality, but impracticable.

Dr. Sharpey observed that there was such a thing as injudicious examining on the part of examining bodies. It was evident that there was a want of consistency in the result of these examinations. Some of the best men in the schools were thrown out at an examination, while perfectly ordinary men got through without difficulty.

Dr. Andrew Wood said it was quite as much the duty of the Council to discuss the method of education as it was to discuss the method of examination. A clause in the Medical Act directed them to deal with the course of study as well as with the examinations. The subject was urgent, because they had information which showed that the degree of ignorance on the part of gentlemen who went up to the licensing bodies was beyond their previous conception. The examining boards could do nothing more than reject them; but it would be well for the Council to devise some means by which no man could go before the boards unless he had a reasonable prospect of passing. When he was a student, attendance in class was optional, and in some classes, nominally consisting of 100 or more pupils, it was common enough to find only about a dozen present, and there was no method of ascertaining whether a student had got any benefit or not from the lectures. The result was that students went to a set of men called "grinders," and paid them a large sum to prepare them for the examinations. A great improvement had taken place in the last few years. The College of Surgeons and the University insisted that men should not receive certificates of attendance at lectures unless they answered to the roll-call a certain number of times. The Council could not do a kinder thing towards students than to pass a recommendation that class examinations should be imperative, and that no student should be admitted to the examination for a diploma unless he produced a satisfactory certificate of having attended examinations in his school.

Dr. Thomson, as a teacher of long standing, could testify to the great value of examinations to a student. In fact, he could hardly conceive any course of medical instruction to be complete which was not accompanied by class examinations. The nature of the examination must depend very much upon circumstances; there were circumstances under which a written examination would be as good as an oral one, and there were circumstances in which an examination from specimens or even experimentally became absolutely necessary. There was a little misconception on the part of some members of the Council as to the extent to which class examinations were adopted. He believed it to be a general practice, and that the instances referred to were rather the exception than the rule. During the whole time of his connexion with Glasgow University the practice of class examinations had been fully carried out, and in precisely the same manner as had been stated in the University of Edinburgh by Professor Turner. In fact, some part of the practice had travelled eastward from Glasgow. Notwithstanding the difficulty of *vivâ voce* examination in a large class, he had so much confidence in it that he had pursued it throughout in connexion with written examinations, and the students received incalculable benefit from it. He was aware of the jealousy with which the Council had looked upon the teachers sharing in any degree the office of passing for a licence, and he did not mean to propose anything of that kind; but it was extremely desirable that the evidence that could be obtained from schools should not be entirely ignored.

Mr. Quain read a copy of the certificate required by the College of Surgeons of England, as follows:—"That the candidate has satisfactorily attended lectures on anatomy, including class examinations and dissections." That had been in use for some time, so that Professor Humphry's proposal was carried out by that body. From the beginning of his career as a teacher of anatomy he had conducted examinations twice in each week, once for the senior class and once for the junior class, with the objects before them. The London University had also for some time acted upon Professor Turner's idea that each person should be able to obtain some honour.

Dr. Bennett thought there was hardly any subject of more importance for the Council to direct its attention to than the improvement in teaching, so far as they could secure it. This must, of course, to a very large extent be left to the free action of each school. They could not lay down rules to be followed by every school, but they could call the attention of all the schools to the importance of improving their teaching arrangements. Professorial teaching was generally satisfactory, but in many of the schools the tutorial part of the instruction was very deficient. In Sir William Gull's school it was notorious that the attention paid to the tutorial department was very great. They were not contented with lectures, but they had a variety of tutorial schemes by which the students had been much assisted. Arrangements of this sort were of supreme importance, and the Council could not refuse to entertain the subject.

The motion was then carried.

### LIMITATION OF THE AREA OF EXAMINATION.

Dr. Andrew Wood moved—"That it is desirable that in the examinations on several subjects of the curriculum—such, for example, as botany, zoology, chemistry, and materia medica—the area of examination should be limited and defined." He first asked the attention of the Council to a passage in the introduction to Dr. Harvey's "Syllabus of Materia Medica," as follows:—"The examinations involve impossible attainments on the part of the students. A burden is laid upon them heavier than they can bear. The result is, cram-work and failure. They know something of everything, but little thoroughly of anything." His idea was that some of the subjects of examination were of such enormous extent that it required the devotion of a lifetime to compass them. For example, what a different thing the chemistry of to-day was from the chemistry of thirty-five or forty years ago; and it was absurd to require that a student should be tested in the whole range of chemistry because he got a big book with which he muddled his head till he knew nothing at all satisfactorily. If the area were limited, they would be able to put more stringent questions and require more stringent tests. That course was adopted at Cambridge, and he believed the remark applied also to botany, comparative anatomy, and zoology. To a certain extent the University of Edinburgh did the same thing. It was a grievous infliction upon a student to expect him to take up such a book as Pereira's "Materia Medica,"—a work in two volumes, with a lot of trash in them,—and then to come up for examination in the whole theory of the "Materia Medica." Perhaps it would not do to limit the area in physiology, medicine, surgery, midwifery, or forensic medicine, but it would be a good thing if the Council would issue the recommendation with respect to the subjects named in the motion.

Dr. Quain: "Limited and defined" by whom?

Dr. Andrew Wood: By the examining board.

Dr. Begbie thought that regard should be had to the accuracy rather than the extent of information, and he believed the object the Council had in view would, to a certain extent, be secured by the recommendation proposed in the motion.

Dr. Storrar called attention to a decision of the Council as to the range of its functions. At the early meetings of the Council many were of opinion that it was their duty alike to supervise the education and the examinations. The matter was referred to counsel, and the opinion of counsel was that all they had to do was to comply with the 20th section of the Medical Act, which stated that the General Council should see that the course of study and examinations to be gone through, in order to obtain any qualification from any college or body, should be such as would secure the requisite knowledge and skill for the efficient practice of their profession. Acting upon that they came to the conclusion that their powers of supervision were limited to what was simply required for the ordinary practice of medicine. Of course their business was not to inspect examinations at universities, because, inasmuch as universities were entitled to grant degrees which were licences, they were not called upon to overlook them in the matter. On July 12, 1869, there was a report of a committee appointed to rearrange the recommendations and opinions of the Medical Council no education examinations and registration, and they recommended—"That the following are the subjects without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered:—Anatomy, general anatomy, physiology, chemistry, materia medica, practical pharmacy, medicine, surgery, midwifery, forensic medicine." The University of London sometimes got the credit of carrying examinations too high; but even for the degree of Doctor of Science the candidate was not required to present a thorough knowledge of both organic and inorganic chemistry. As to materia medica, if it was to present the materials which a physician used for the cure of disease, he could not for a moment contemplate leaving out any portion of it. No man in his senses would attach as much importance to sarsaparilla, and medicines of that kind, as he would to opium, quinine, tartar emetic, or iron. Dr. Harvey, from whose book Dr. Wood had quoted, was an ornament to the School of Aberdeen, and he perfectly approved of what he had done; but how did Dr. Harvey know that every other teacher of materia mediea did not adopt the same plan? Surely every lecturer on materia medica was giving prominence to the most important materials. Dr. Pereira acted upon the principle of putting everything he knew into his materia medica, but now materia medica was taught in a very different way from what it used to be, and more in accordance with the principles of common sense. Whilst he could not vote for Dr. Andrew Wood's motion, there were many things in it with the spirit and object of which he could agree.

Dr. Acland, in supporting the motion, said that any person who had paid attention to the condition of the unfortunate student, and the still more unfortunate examiner, must be perfectly aware of the fact that if an examiner did not know what the student had been taught there was a very great chance that the student would be unjustly and unfairly examined. Clearly it was the duty of the Council sooner or later to solve that most difficult question. The Professor of Physics at Oxford told him that such was the range of subjects in which a man who went for honours must be examined in physics, that many of the best men refused to present themselves, and some of the first-rate students thought it was more to their interest intellectually to work at one thing and thoroughly master it than to attempt to grasp so many. What they, as a Council, had to secure, was that men were well qualified for their ordinary professional duties, and he was therefore in favour of the principle of the motion.

Dr. Parkes observed that if the London University was obliged to limit the subjects of examination even for the highest honours, it was much more necessary when they were dealing with the ordinary medical student. For example, a young man could not do more than learn the mere rudiments of chemistry in nine or ten months; yet in some of the examinations only two or three questions of the highest order were put, instead of having nine or ten, some of them much easier than the others. In one case a student had written extremely bad answers, but answered very well in the *vivâ voce* examination. The fact was that in the *vivâ voce* examination he was asked some simple questions, to which he gave fair answers; but the paper that was put before him was quite beyond what could be reasonably expected from a student. Mr. Macnamara and Dr. Harvey of Aberdeen, both eminent teachers, had stated that selection was desirable, and he thought that that would recommend itself to the belief of every member of the Council.

Dr. Sharpey thought they were in danger of being confused between two propositions, as some had spoken of defining the area of teaching, whereas the object was to define the area of examinations which had reference to the ordinary licence. To limit the area of teaching, which must include the teaching required for degrees and fellowships, would be very disadvantageous.

Sir William Gull believed there was nothing so injurious to the study of a subject as popular compendiums. If they were to limit the area of knowledge he hoped an earthquake would come and swallow up the Council. The great light of the profession (Hunter) did all he could to enlarge the area of study. He said, "Let us enlarge the area of our thoughts; let us see what living things are, that we may study them better and better." If they were going to level the Council down to the stupid men, a parcel of twenty-four old women would do the work quite as well. The object of Dr. Wood's motion was to give common sense to the examiners and teachers; but it could not be done. The wider the area, the more enlightened the teaching would be.

Dr. Humphry said the real point of teaching was to instruct a man well in the area in which he was taught, and it was impossible to instruct well over a very wide area. It was of no use saying that the thing was impossible, because it was actually done at Cambridge among other places. They were obliged to have the area defined in order that the teaching and the learning might be good. Instead of allowing the student to wander here and there, and be in utter darkness over the whole region, they pointed out to him a district, and set him to walk in it. Knowledge was not to be obtained by a mere process of examination. It was quite as important a duty of this Council to regulate, direct, and assist the work of education as to superintend the work of examination.

Professor Turner would be the last man to limit the area of study; every medical student should endeavour to compass as large an area as possible, and the question of limiting the area ought never to have arisen, because it was no part of the motion. An efficient teacher ought always to teach beyond what an examiner might be expected to ask a student; and to limit a man's teaching would be one of the greatest blows that could be inflicted on medical education. He recognised the great importance of limiting the examinations in botany and chemistry and pure sciences which had no direct connexion with medicine. Materia medica, however, was so essential a part of the training of a medical student, that he would rather not do anything towards limiting the examination in it.

The President entirely disagreed from Sir William Gull. The subjects connected with the study of medicine involved such an enormous number of independent facts, and imposed so severe a tax upon the memory, that he had long since come to the conclusion that if a diligent student were to make himself master of them, he would be a worse instead of a better man for the work of a physician. It was far more important to have precise knowledge over a limited extent than superficial knowledge over a large extent. Let them consider the size of the British Pharmacopœia, and then how small was the range of those preparations which physicians even in large practice were in the habit of prescribing. Was a young man whose mind was already full of independent facts to be expected to have an acquaintance with all those drugs, 90 per cent. of which he would probably never prescribe?

After a few words from Dr. Wood, the motion was carried by a large majority.

CLINICAL EXAMINERS.

Dr. Humphry moved—"That it is important that two examiners, or an examiner and assessor, should be present at every clinical as well as oral examination." He said that, in addition to the ordinary motives for two examiners being present, which would occur to everyone, there was the reason that one examiner did not always know, and was not always able to ascertain for himself clearly and truly, the nature of the case before him. The result to a student, when such was the case, would be in some instances unfair, and an example of this had been given by Sir William Gull. There ought to be no risk of a student being subjected to an unjust verdict.

Sir William Gull seconded this, and it was carried.

The Council adjourned at six o'clock.

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Seventh Day.—Thursday, July 16.

The Council resumed at two o'clock.

Adulteration of Food.

Dr. Acland brought up the report of the Committee

appointed to consider the report from the Select Committee of the House of Commons on the Adulteration of Food Act, 1872, and in moving its adoption said he wished in the strongest terms to express his dissent from the opinions of those who thought the Council had nothing to do with such questions. Medical education was at a great crisis, especially as to the organisation of all matters affecting health: and if the Council should take the line, by accident or remissness, of laying down that it had nothing to do with the prevention of disease, he would undertake to say that its memory in the next generation would not be "blessed." It was perfectly certain that the view taken by the younger members of the profession was that medical science had almost as much to do with prevention as with cure. He entirely agreed that the less they had to do with Government the better, so far as being controlled by Government was concerned; but if the Council was an imperial Council, and did not offer its assistance to the Government, it would reduce itself to a very low level. It was clear that it was their duty to take some action, and the occasion did not admit of delay to consider what they should do. The Committee looked at the whole of the circumstances, and with the exception of one member, who was unfortunately absent during the greater part of the deliberations, they were unanimous in the propositions they had made. They were anxious the Council should bear in mind that the public analysts were not only employed to test food and consider the questions which persons employed in trade were just now very anxious about—the adulteration of tea and milk,—but that these analysts were performing a most important function in the constant examination of water with respect to its effect on health, and amongst other things the course of typhoid fever. It was found out that in villages, and actually in farm homesteads, people were unknowingly drinking poisoned water, and he was filled with horror at the thought of the extent to which this was the case. He was truly sorry that in his own district the analyst was very much less employed than he ought to be, but in by far the larger number of times when he was engaged in his work it was in answering the simple question—Is this water fit to drink or not? Already two universities in the United Kingdom had undertaken the task of examining persons who sought to be qualified as officers of health; they were required to study and be examined in the analysis of food and of potable or non-potable water. Therefore, if any member of the Council suggested that they had no relation to this matter, he would refer him to the representative of the University of Dublin, and the representative of the University of Edinburgh, which bodies were ready to give certificates of competency in this subject. What would happen supposing the advice of the Committee of the House of Commons was taken without reserve? It was quite true that the Committee of the House of Commons did not advise the Local Government Board to require certificates from South Kensington, but it suggested that they should have the option of obtaining them. Supposing they said nothing, it might so happen that the President of the Local Government Board in the new Government might lay down the rule that every candidate must hold that qualification. He moved—"That the report of the Committee on the Adulteration of Food Act be received and entered on the minutes."

Mr. Quain seconded this, and it was carried.

Dr. Acland then moved, and Dr. Quain seconded—"That the report of the Committee on the Adulteration of Food Act be considered paragraph by paragraph." This was agreed to; and after a discussion of no public interest the Council (on the motion of Dr. Acland, seconded by Dr. Andrew Wood) adopted the report as amended.

*Report.*—1. That no one shall be eligible for the office of Public Analyst unless he be possessed of a Certificate of Competency in Analytical Chemistry, in the use of the microscope, and such other subjects as the Medical Council shall from time to time determine, granted by an examining board, or boards, or as hereinafter suggested; or a qualification as an Officer of Public Health, which shall include these subjects. 2. That the office of Public Analyst may be held separately, or in conjunction with that of an Officer of Health. 3. That it is desirable that the granting the Certificate of Competency for the office of Public Analyst, or Officer of Health, should not be confined to any single examining board, but that there should be one or more examining boards for that purpose in England, in Scotland, and in Ireland. 4. That the Medical Council should have authority to define the subjects of examination required for Public Analysts and Officers of Health; and to publish a list of the bodies which comply with the conditions laid down. 5. That it is desirable that it should be made lawful that the qualifications of Public Analyst and of Officer of Health should be entered on the Medical Register as additional qualifications when the holder is already a registered medical practitioner. 6. That a deputation from the Medical Council should be appointed to obtain an interview with the President of the Local Government Board for the purpose of presenting the above resolutions.—H. W. Acland, *Chairman.*

EXAMINATIONS OF CANDIDATES.

Dr. Humphry moved a resolution, which in deference to the suggestions of different speakers he altered, as follows:—"That it be recommended that in no case should the examination of a candidate by any of the licensing bodies in any subject be conducted wholly, or in great part, by the lecturer or teacher in that subject in the school in which the candidate has been educated." He said this subject affected the greater number of the universities of the United Kingdom. Within a comparatively recent period all the universities were teaching bodies and examining bodies; and not only so, but the teaching and examining in each subject were conducted by the same person in each university. A few years ago that system was altered in Cambridge, it being found that it did not work well; and that University appointed other examiners to be associated with the professors, and subsequently for the most part in lieu of the professors, selecting those examiners not simply from its own body, but choosing any whom they believed to be fit. This he believed to be the first instance of a teaching body appointing examiners from persons not belonging to their own body. It was done, not because there were not a sufficient number of competent men within their own University, but because they desired to raise the tone and widen the scope of their examination. The practice of committing the teaching and examining in each subject entirely to the same person must be admitted to be an objectionable system, and one against which common sense recoiled. It was putting too much responsibility with too little check in the hands of one person; and the system was open to a considerable amount of abuse and imperfection. Although in many instances the teaching and examination were conducted by persons far above any imputation, and who did their work in a first-rate manner, yet he did not think that a practice which was exposed to so many objections ought to be sanctioned by the Council. One objection was that it was likely to have the effect of limiting the area of teaching, seeing that the Professor, as being the regulator of the examination, was the only check upon his own teaching. He might omit any branch of his subject; he might teach any branch of his subject in any way he chose, and adapt his examination and his teaching the one to the other. He also was in danger of losing the stimulus to teaching necessarily afforded by the fact that the student and teacher were subjected to examination by another. There could be no question, moreover, that each teacher indicates more or less to his students what would be the subjects and the manner of his examination. He could not possibly avoid doing so, and, unconscious as he might be of the fact, there could be no doubt that the students were apt to learn from his teaching what would be the prominent points of his examination. Then it could not be disputed that men long accustomed to examine fell into a certain groove of subjects and a habit of putting a particular class of questions: students were quick in observing this, and were able to prepare themselves in accordance with the known character of the examination. They learned what might be called the "tips" of every teacher, and they knew perfectly well how to profit by them. The teacher was often not aware of any peculiarity in his examination, but it was very observable to those who referred to his former papers; and none knew this better than those who prepared students. At Cambridge it was found that students were in the habit of carefully studying the previous questions of examiners instead of thoroughly learning the subjects. Another serious objection was that many teachers and examiners became in course of time more or less incompetent for their work; and unless there was some corrective the examinations would become very weak. Whilst he did not wish to exclude teachers from *all* part in the examination of their pupils, he certainly thought that the *chief* part of the examination ought not to devolve upon them.

Dr. Storrar seconded the motion.

Dr. Pyle said the system recommended had been adopted in the Arts course in the University of Durham. They always had an examiner from Oxford or Cambridge; they had also had one or two members of the Council as examiners; and he hoped that would become the practice.

Dr. Thomson thoroughly agreed with the remarks of Dr. Humphry. At the same time he wished, as representing the Universities of Glasgow and St. Andrews, to say a word with respect to the system pursued, at all events in the University of Glasgow, and to indicate to the Council the difficulties under which that University laboured in efficiently carrying out

corrective measures for this acknowledged evil. The Council was probably aware that the non-professorial examiners acted with the professors in carrying on the examinations for the degrees; and it was felt to be extremely desirable that the number of non-professorial examiners should be increased. The University, however, had not funds to meet the expense. He felt the objection that existed to a teacher examining his own pupils for degrees, and had often wished that he could delegate that duty to others. In Scotland, however, even with sufficient funds for the remuneration of non-professorial examiners, there would be a difficulty in the selection of efficient examiners, in the previous subjects, who were not teachers. With respect to practical subjects, there would be no difficulty, because usually men retained their information upon these subjects for a much longer time. Professor Turner would explain what it was intended to do in the University of Edinburgh; and at no distant period the University of Glasgow would, he hoped, follow that example by increasing the number of non-professorial examiners, or by adopting some plan which would prove satisfactory to the Council and remove the disadvantages attending the examination of candidates for a licence exclusively by their own teachers.

Professor Turner said the office of teacher was higher than that of examiner; for what was education? Some persons spoke as if they thought all that was necessary was that a student should get through his examination; but in fact the examination was a mere stepping-stone in the career of a professional man. The office of a teacher was to prepare a student to perform his duties throughout life, by bringing clearly before him all the important points connected with the range of studies which were to be of service to him throughout his whole career, and not simply to prepare him for examination, which was a very low conception to entertain of the nature of the duties of a teacher. The introduction of examiners who were not the teachers of the particular candidates would be a very proper thing; but, as had been said by Dr. Thomson, the difficulty in Scottish universities was to provide funds. The annual income of Scottish universities was very small; they had no great landed estates or large investments, as some of the English universities and corporations had, neither were they so closely related to the State as the University of London, the examiners of which were paid by the State. It was not desirable to raise funds by adding to the expense of medical education, which was high enough; but the subject had been under the consideration of the University of Edinburgh during the last few months, and he had with him a minute which had been approved of by the Senatus and the University Court, and only wanted the sanction of the Chancellor of the University and the Queen in Council in order to become law, after which it would undoubtedly be carried out. This, he hoped, would be the case next year. They proposed to increase the number of non-professorial examiners associated with the professors from three to seven, and they had made provision to increase them to twelve or thirteen if it should be found necessary. One of the conditions in the proposed new regulations was that each examiner should be specially qualified to examine in a given subject, and, as in the University of London, that he should be appointed to examine in that subject. Some subjects were so closely connected that the same examiner might take them—*e.g.*, theoretical surgery and clinical surgery, medicine and clinical medicine, anatomy and comparative anatomy,—so that it might not be necessary to appoint so many as twelve or thirteen non-professorial examiners if they could meet with seven or eight thoroughly efficient men.

Dr. Sharpey suggested, as a way of getting over the financial difficulty mentioned, that the universities, whilst continuing to confer degrees, each upon its own *alumni*, should combine together for the purpose of having examinations in common.

Mr. Quain said that at the Royal College of Surgeons of England no pupil was ever examined by his own teacher, because they could get plenty of examiners.

Dr. Andrew Wood reminded Dr. Humphry that in one of his speeches he had said that when he went into the examination-rooms he could tell which of the candidates ought to pass and which ought not. So far, therefore, there was an advantage in having teachers as examiners; but it was right that there should be a due admixture, which was the case in his school.

Dr. Humphry felt quite sure that Professor Turner did not mean to intimate that he (Dr. Humphry) at all sympathised with the idea that a teacher should cram a man. As a student he had never allowed himself to make special preparation for any examinations, except in one instance when he knew he would be under the keen supervision and examination of Dr. Sharpey; and as a teacher he always endeavoured to keep the examinations out of view. Whenever he found himself alluding to the subject of examination, he invariably apologised to his pupils, and said he was descending from the position he had to maintain as a teacher in one of the universities of England. He agreed with Dr. Sharpey's idea about common examinations, and he would be quite content to leave them to such men as Dr. Thomson and Professor Turner.

The resolution was carried.

Dr. Humphry then moved—"That it is desirable that observation with the microscope should form part of the examinations of candidates for a licence."

This was seconded by Dr. Storrar, and agreed to.

Dr. Storrar moved—"That in the opinion of the Council all examinations should, as far as possible, be objective, and conducted by persons who are experts in the subjects of the examination assigned to them; and that in all examinations, excepting those for degrees and fellowships, the questions put should be chiefly such as have a bearing on practice." The resolution, he said, was divided into three parts, and before he dealt with that which was the most important part—viz., that which had relation to "experts,"—he would just explain that in the first draft of the motion he had used the word "demonstrative" instead of "objective," which he now adopted in deference to a member's suggestion. He simply meant to give effect to the opinion of the Council that examinations should be of a practical character; and by the third part he meant not simply that the examination should be practical, but that for the ordinary licence of such bodies as the College of Surgeons and the Apothecaries' Society, preference should be given in the examinations to such subjects as the joints, and so on, instead of getting into really idle subjects. As to the middle clause, relating to the employment of "experts," there seemed to be a concurrence of opinion in the Council, that the best examiners were to be found amongst the teachers. Some objected that the object of suggesting the employment of experts was to make the examinations very difficult; but on the contrary, it was really to make them easy. He had not been an examiner himself, but he had had much to do with the appointment of examiners and noticing their work, and he had come to the conclusion that the most eminent men, who were the most distinguished for their knowledge of any subject, were the most judicious and efficient examiners. Cranky questions were almost invariably the refuge of bad examiners. Professor Graham, whose eminence he need do no more than allude to, and whose monument in Glasgow was an honour to the inhabitants of Scotland, was for many years an examiner in the University of London upon chemistry. His questions were always remarkable for their good sense and simplicity. The same remark applied to Professor Stokes, of Cambridge, who was a great physicist. Dr. Sharpey being in the room, he could not speak in his presence of the reputation he had for years as an examiner. One of the greatest miseries which teachers and candidates had to contend with arose from having to do with examiners who had literally to grind up for their own examinations, which had been notoriously, and he suspected was still to a certain extent, a fact. The University of London had survived the time when examinations in anatomy and physiology were conducted by octogenarians; but sometimes complaints were made of certain examinations conducted by gentlemen, possibly eminent as surgeons and physicians, who were not conversant with the anatomy of the schools. His notion of an examination was that it should be so entirely in relation to the teaching of the schools, that a student should be able to pass from the class-room with an easy mind to his examinations, instead of being put into a state of fever. There were a class of examiners who expected answers in one direction, that direction not being in consistency with the teaching. The way to cure that evil was to put a stop to a loose way of appointing examiners, particularly on what they called the fundamental subjects, such as anatomy, physiology, and chemistry, who were not intimately conversant with the subjects, and had no practical experience of the attitude of a student's mind in relation to subjects of that kind. There was a very close relation between the experience of a man in putting in knowledge and the experience of a man in bringing it out. The conclusion that all this brought him to was that it would

be well if, instead of teachers being repudiated for the office of examiners, they should be preferred. Good examinations of a simple kind would really be the easy ones, and in England at least they were all trying to get a simplification and improvement in the examinations. By establishing a conjoint examination they would get rid of a number of superfluous examinations and relieve the student of the constant fever of preparations. In London there were two professional examinations for the licence of the College of Physicians, two for the diploma of the College of Surgeons, and two for the certificate of the Society of Apothecaries. If these were consolidated in a conjoint scheme, there would be two examinations in place of six. Therefore, he would ask the Council whether, by making these examinations as good as possible by the appointment of men of the highest attainments, they would not bring into the profession a class of men of a very superior quality. Mr. Quain, in the discussion of Sir Dominic Corrigan's proposed amendments in the Medical Act, pointed out what he considered to be the importance of having a class of men admitted easily into the profession in order to supply the wants of the poor. He said that the number of medical men in London had not kept pace with the increase of population. He would go the length of saying that if they were to choose between an ignorant man practising below the Register and an ignorant man practising within the Register, he would prefer to have the man below the Register, because he practised at considerable risk. He knew he was in danger of being brought to trial if a patient died under his treatment; consequently he was very cautious, and administered only such medicines as castor oil, black draught, pills, quinine, and iron. But if an ignorant man was armed with the diploma of the College of Surgeons, or the certificate of the Society of Apothecaries, or the licence of the College of Physicians, they put into his hands a pair of revolvers, and he might go about in society injuring and killing perhaps as many of his patients as Saul and David together killed of their foes; and no one could stop him. Therefore, although they were anxious not to carry the standard of professional proficiency to an extravagant pitch, they must take care not to introduce into the profession a class of men who would appear on the Register as qualified whilst they were as deplorably ignorant as the man they had heard of, who had forgotten, two years after passing an examination in anatomy, on which side of the body the spleen was. In conclusion, he would say that the object aimed at in the motion was to simplify the examinations by making them better, and to make them better by selecting examiners from the most qualified men.

Dr. Begbie objected to the word "experts," because it by no means followed that experts would be good examiners.

Dr. Stokes, in seconding the motion, said that it was a question whether all examinations should be objective, but that was carefully guarded by the words "as far as possible." He was rather doubtful as to the clause relating to experts, because it sometimes happened that the fact of a man being a professed expert positively unfitted him, to a certain extent, for the work of an examiner. In his opinion, the great value of the motion was in the last clause, requiring that the questions put in the pass examinations should be chiefly such as have a bearing on practice.

Mr. Quain said that Dr. Storrar must have misunderstood his remarks on Saturday if he supposed they were meant to advocate the formation in this country of a low class of practitioners. He never thought of such a thing. In one of the reports it was erroneously said that the object of dividing the examinations into two parts was that, by having anatomy, physiology, chemistry, and so forth, in the first part, the student should acquire a thorough knowledge of those subjects. The object was that examinations should be such as those which Dr. Storrar had advocated—examinations which men of average ability and industry could pass. The difficult examinations which were conducted by unskilful men were what he protested against, and he only advocated a reasonable examination, not the degradation of the profession by bringing in a low class of men.

Dr. A. Smith could not vote for the resolution on account of its requirement of experts, and he suggested a modification of that clause so as to bring it into accordance with a resolution passed some years ago.

The motion was then negatived.

Dr. Bennett, with the permission of the Council, withdrew his notice of motion on the subject of rejected candidates going to another licensing body, on the ground that the matter had been thoroughly discussed, and he did not think any good would be done by passing any resolution.

Dr. Andrew Wood moved—"That the visitations of examinations be continued, and that the Executive Committee be directed to select visitors."

Mr. Macnamara, in seconding this, earnestly begged that the College of Surgeons in Ireland should be visited within the ensuing year, because that body was by no means satisfied that justice had been accorded to its examinations. This motion was carried, and the Council adjourned.

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### Eighth Day.—Friday, July 17.

The Council reassembled at two o'clock.

The President informed the Council that the deputation appointed yesterday had obtained an interview with the President of the Local Government Board. He stated that the deputation had placed in the hands of the President of the Local Government Board a copy of the resolutions of the Medical Council; and that the President and the several members of the deputation had made a few remarks explanatory of the resolutions. They had also expressed the desire of the Council to co-operate with the Government, in any way within their power, which may now or hereafter be required for the development of the best means of education and examination in the various departments of knowledge which bear on the public health.

#### Conjoint Examinations.

Dr. Parkes asked the President if he could inform the Council whether the schemes for conjoint examinations in England and Ireland, which have been sanctioned by the Council, are being carried into effect. He said the regulations of the Conjoint Board for England had been issued. The Council were therefore in a position to know that the conjoint scheme for England had assumed a very definite form, and must be now near completion. It would be satisfactory to a great number of members to be informed when the conjoint scheme for England would be brought into effect, because they all knew its importance as bearing upon the success of similar schemes in other parts of the United Kingdom. With regard to Ireland, very little had been brought before the Council as to their conjoint scheme, but it was to be hoped that the different representatives of the Irish licensing bodies would be able to say that the very able scheme brought before the last Council was in a position to be made public. He hoped also that the Scotch bodies were still endeavouring to carry out the wish of the Council expressed by a large majority some years ago.

Sir Dominic Corrigan wished to know whether they had any official information of the fact that a conjoint scheme for England had been before the Council and sanctioned. He thought the question of Dr. Parkes included the assertion as a fact of what did not exist. As far as he knew there never had been a conjoint scheme for England before the Council, and if he was mistaken, there would be some record of the fact. A conjoint scheme for Ireland had been before the Council, and the Council sent it back.

The President said that he would first reply to Sir Dominic Corrigan. With regard to the conjoint scheme for England, this resolution was passed on March 1, 1872—"That the Council approve of, and sanction the Conjoint Scheme of Examination submitted by the Royal College of Physicians of London and the Royal College of Surgeons of England, to which the Universities of Oxford, Cambridge, and Durham have given their adhesion. The Council has at the same time to express its desire that means may be found by which the University of London and the Apothecaries' Society may be enabled to join in the scheme, so as to render it a complete scheme for a Conjoint Board for England." The scheme, he believed, was so drawn as to admit the other bodies into it by simple adhesion on their part. The scheme was at page 9 of vol. x. of the Minutes, and consisted of eleven resolutions, the first of which was—"That a board of examiners be appointed in this division of the United Kingdom by the co-operation of the Royal College of Physicians of London, the Royal College of Surgeons of London, and of such other of the medical authorities in England, mentioned in Schedule (A) to the Medical Act, as may take part in its formation, it being understood that, liberty being left to such co-operating medical authorities to confer, as they think proper, their honorary distinctions and degrees, each of them will abstain from the exercise of its independent privilege of giving admission to the Medical

Register." Then, as to the Council sanctioning a conjoint scheme for Ireland there might be some doubt. At page 151 of the same volume there was a resolution which was first put as an amendment, and afterwards carried as a substantive motion—"That the Council sanction the scheme of conjoint examinations approved by the University of Dublin, the King and Queen's College of Physicians, and the Royal College of Surgeons in Ireland, with the exception of that part of Clause 5 which follows the words 'preliminary examination' in the second line. The Council also desire to express a strong hope that the Queen's University and the Apothecaries' Hall in Ireland may be able to co-operate in the scheme." That scheme, as far as he recollected, was worded rather differently from that of the English bodies, not being so framed as that other bodies could give in their adhesion to it without the formality of a further sanction from the Medical Council; certainly not without the sanction of the other bodies concerned in the scheme.

Sir Dominic Corrigan thought the President's answer had confirmed the correctness of his impression, for the words in the resolution of March 1, 1873, "so as to render it a complete scheme for a Coujoint Board for Euglaud," showed that the thing was not done. There was merely the expression of a hope that it might be a "complete" scheme; and a thing was not done perfectly till it was complete.

The President reminded Sir Dominic Corrigan that Dr. Parkes had not asked about a "complete" scheme, but only whether these schemes were being carried into effect. With regard to England, the Council were well aware how far the scheme itself had gone. During the present session Dr. Storrar informed them that the University of London had agreed to give in its adhesion to the scheme; and in the present session of Parliament the Society of Apothecaries of London had obtained an Act, which had received the Royal asseut, enabling them to remove their disabilities and join in the scheme. That Act was amended in some respects at the suggestion of the Executive Committee of the Branch Council for England. With regard to whether these schemes were being carried into effect, what he had said proved that all the bodies in England had joined or were about to join in the scheme; and the Committee of Reference had been very hard at work in arranging for carrying all the details into effect. The task had been very troublesome, and a great deal of time had been spent over it, but they had now completed the details for carrying the scheme into effect. He wished he could add that it was in operation; but there was a legal difficulty in relation to the appointment of examiners by the College of Surgeons arising from the nature of their charter. It was not an insuperable difficulty, and he hoped it would be got over. As to Ireland, three of the bodies had laid before the Council a scheme which many of them thought an exceedingly good one. Since that time the Apothecaries' Hall of Ireland had expressed their wish to join. It appeared that in Ireland they had not only a scheme, but what was actually on the programme to-day —the details of a plan for carrying the scheme into effect.

EXECUTIVE COMMITTEE.

The Council having balloted for the Executive Committee, the following members were found to be elected:—Dr. Bennett, Dr. Acland, Dr. Sharpey, Dr. Quain, Dr. Andrew Wood, Dr. A. Smith.

EXAMINATIONS.

Dr. Arjohn moved—"That the Medical Council are of opinion that the number of *paper* questions in chemistry should not be less than ten, and that there should be no limit as to the proportion of those which the student is required to answer. That one-half of said questions should relate to general chemistry, and that the remainder should be taken from such departments of chemical science as have a bearing on physiology, pathology, and medical jurisprudence. That the *vivâ voce* examination should be such as would test the ability of the student to solve a few of the more simple problems in qualitative analysis, and apply to their respective uses the volumetric solutions of the British Pharmacopœia."

Dr. Parkes, in seconding this, said that he had some doubt whether the Medical Council would not think that this was going a little too much into detail; but that might be answered by the observation that it was only a sort of recommendation, and would, if passed, go down to the various bodies for their consideration, and would be valuable as pointing out the path at least in which the Medical Council wished the examinations to be conducted. It was very hard on the student to give him only two or three questions, and those generally of a very difficult kiud.

Dr. Haldane thought it was a serious objection to the resolution that it went too much into detail. Then with respect to the number of questions, it was utterly impossible to state how many questions should be put so as to be applicable to all the examinations.

After a few remarks from Dr. Sharpey and Dr. A. Smith, the resolution was negatived.

RESULTS OF EXAMINATIONS.

Dr. A. Smith moved, and Dr. Begbie seconded—"That the table showing the results of examinations be taken as read, and entered on the minutes."

This was agreed to. (See next page for table.)

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

The following letter was read:—

King and Queen's College of Physicians, Ireland, July 7, 1874.

Dear Sir,—By this post I send you twenty-five copies of the report of the College upon the Report of the Committee of Reference, which this College adopted at a special meeting held yesterday.

I am, dear Sir, yours faithfully, J. Magee Finny, Registrar.

Francis Hawkins, Esq., M.D., Registrar, General Medical Council.

It was then resolved, on the motion of Professor Turner, seconded by Dr. Storrar—"That the Council acknowledge the receipt of the letter and report from the King and Queen's College of Physicians, Ireland, and thank the College for their courtesy in forwarding them."

REGISTRATION.

Dr. Fleming moved, and Dr. Arjohn seconded—"That it be an instruction to the registrars, before they enter the name of any applicant for registration on the Medical Register, to ascertain by refereuce to the Register of Medical Students whether the period of time required by the Medical Council to be devoted to professional study has elapsed between the date of the applicant's registration as a student of medicine and the date of his licence; and further, that the registrar of each Branch Council shall report to his Council any case where this has been departed from, and take instructions from them as to any future proceeding."

The motion was negatived.

FABRICATING CERTIFICATES OF VACCINATION.

Dr. A. Smith, in pursuance of notice which he had given, asked the representative of the University of Aberdeen if any proceedings had been taken by that University respecting an M.D. of Aberdeen, who was sentenced to four months' imprisonment at Inverness Circuit Court for fabricating certificates of vaccination? He read a paragraph from a newspaper report of the case.

Professor Turner said he had no information on the subject. He knew nothing of the accuracy or inaccuracy of the paragraph just read; but if it was considered advisable he would communicate with the University upon the subject.

THE SOCIETY OF APOTHECARIES AND THE CONJOINT SCHEME.

Mr. Bradford said he had reason to know that the Bill promoted by the Society of Apothecaries with a view to enable the Society to unite in the conjoint scheme had received the Royal assent yesterday. It would be remembered that after prolonged negotiation with the two Royal Colleges, in February, 1872, a scheme was submitted by them to the Medical Council, and then approved and sanctioned by the Council. The Society objected to the scheme as having been framed without their co-operation, and because they were advised that it was illegal and unreasonable. The Medical Council, on March 1, resolved that it was desirable that means should be found to enable the London University and the Society of Apothecaries to unite in the scheme. An undertaking was then given by the Society's representative that measures should be adopted with this view. Accordingly, on March 28, 1872, application was made to the Lord President, who declined to introduce a Bill himself, but approved of one being brought in by a private member. A draft of a Bill was then made by the present Mr. Justice Archibald, and, with an amendment, was submitted to the Lord President. Upon this it was intimated that a general measure was in contemplation, and the Bill was dropped for the time. In February, 1873, a renewed application was made to the Lord President, which was replied to in March, to the effect that the Lord President declined to introduce any such measure at the time. The London University at that period introduced a Bill into Parliament for the purpose of removing their own disabilities, and this was rapidly carried through, and became law. Then,

*Table showing Results of Professional Examinations for Degrees, Diplomas, and Licences granted in 1873 by the Bodies in Schedule (A) of the Medical Act.*

| Licensing Bodies. | Degrees and Diplomas. | No. of Examinations to be passed. | First Examination. | | Second Examination. | | Final Examination. | |
|---|---|---|---|---|---|---|---|---|
| | | | No. rejected. | No. passed. | No. rejected. | No. passed. | No. rejected. | No. passed. |
| Royal College of Physicians of London | Licence | 2 | 1 | 3 | ... | ... | 12 | 76 |
| | Membership | 3 | ... | ... | ... | ... | 3 | 12 |
| Royal College of Surgeons of England | Membership | 2 | 221 | 482 | ... | ... | 101 | 369 |
| | Licence in Midwifery | 1 | ... | ... | ... | ... | 2 | 4 |
| | Fellowship | 2 | 45 | 49 | ... | ... | 15 | 18 |
| Society of Apothecaries of London | Licence | 2 | 61 | 146 | ... | ... | 25 | 179 |
| University of Oxford | M.B. | 2 | ... | 8 | ... | ... | 1 | 2 |
| | M.D. | Essay | ... | ... | ... | ... | ... | ... |
| University of Cambridge | M.B. | 3 | 6 | 21 | 11 | 17 | 2 | 7 |
| | M.D. | 1 | ... | ... | ... | ... | ... | 2 |
| | M.C. | 1(a) | ... | ... | ... | ... | ... | ... |
| University of Durham | L.M. | 2 | ... | 3 | ... | ... | ... | 3 |
| | M.B. | 1 | ... | ... | ... | ... | ... | 1 |
| | M.D. | Essay | ... | ... | ... | ... | ... | ... |
| | M.C. | 2 | ... | 3 | ... | ... | ... | 3 |
| | | | Preliminary | Scientific. | 1st M.B. | 1st M.B. | 2nd M.B. | 2nd M.B. |
| University of London | M.B. | 3 | 76 | 67 | 8(b) | 34(c) | 5 | 22 |
| | M.D. | 1 | ... | ... | ... | ... | 4 | 17 |
| | B.S. | 1 | ... | ... | ... | ... | ... | 5 |
| | M.S. | 1 | ... | ... | ... | ... | ... | ... |
| Royal College of Physicians of Edinburgh | Licence | 2 | 6 | 10 | ... | ... | 48 | 132 |
| Royal College of Surgeons of Edinburgh | Licence | 2 | 4 | 7 | ... | ... | 11 | 35 |
| Faculty of Physicians and Surgeons, Glasgow | Licence | 2 | 29 | 21 | ... | ... | 9 | 17 |
| Royal College of Physicians and Royal College of Surgeons of Edinburgh | Licence in Medicine and Surgery | 2 | 30 | 36 | ... | ... | 25 | 76 |
| Royal College of Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow | Licence in Medicine and Surgery | 2 | 4 | 9 | ... | ... | 11 | 22 |
| University of Aberdeen | M.B. | ... | ... | ... | ... | ... | ... | ... |
| | M.D. | By promotion | ... | ... | ... | ... | ... | 23 |
| | M.B. and M.C. | 3 | 9 | 72 | 12 | 62 | 12 | 56(d) |
| University of Edinburgh | M.B. and M.C. | 3 | 77 | 110 | 16 | 105 | 11 | 77(e) |
| | M.D. | Thesis | ... | ... | .. | ... | 4 | 24(f) |
| University of Glasgow | M.B. and M.C. | 3 | 42 | 43 | 21 | 46 | 8 | 43(g) |
| | M.D. | 2 | 1 | 2 | ... | ... | 1 | 1 |
| | M.D. | Thesis | ... | ... | ... | ... | 4 | 11 |
| University of St. Andrews | M.B. | 3 | ... | 1 | ... | 1 | ... | 1(h) |
| | M.D. | 1 | ... | ... | ... | ... | ... | 10 |
| | M.C. | ... | ... | ... | ... | ... | ... | ... |
| King and Queen's College of Physicians in Ireland | Licence in Medicine | 2 | ... | ... | ... | ... | 18 | 73 |
| | Licence in Midwifery | 1 | ... | ... | ... | ... | 9 | 52 |
| RoyalCollege of Surgeons in Ireland | Licence | 3 | 83 | 123 | 6 | 131 | 19 | 131 |
| | Licence in Midwifery | 1 | ... | ... | ... | ... | ... | 19 |
| | Fellowship | 3 | 1 | 20 | ... | ... | ... | 20 |
| Apothecaries' Hall, Dublin | Licence | 2 | 8 | 39 | ... | ... | 6 | 30 |
| | | | | | | | Deg. M.B. | Deg. M.B. |
| University of Dublin | M.B. | 2 | *Vide* foot note (i) | | ... | ... | 9 | 35 |
| | M.C. | 3 | ... | ... | ... | ... | 1 | 7 |
| | M.D. | Thesis | ... | ... | ... | ... | ... | ... |
| Queen's University in Ireland | M.D. | 2 | 53(k) | 72 | ... | ... | 21(l) | 44 |
| | M.C. | 1 | ... | ... | ... | ... | 15(m) | 40 |

(a) In addition to the examinations for degree of M.B.
(b) Of these, 3 were amongst the candidates who proposed to go through the examination with the exclusion of Physiology, and 1 was amongst those who, having previously passed the examination with the exclusion of Physiology, presented himself to be examined in Physiology only.
(c) Of these, 10 availed themselves of the option of reserving their examination in Physiology for a future year, and 4, who had previously exercised the same option, passed in Physiology only.
(d) Of these, 44 took M.B. and C.M., 8 M.B. alone, and 3 did not graduate; 1 took M.D. only.
(e) Of these, 67 took M.B. and C.M., 4 M.B. alone, 2 took M.D. (each of the last two having given in a Thesis), and 4 did not graduate.
(f) There were 28 candidates for the degree of M.D. Of these, 24 passed and 4 were remitted in consequence of their theses having been insufficient.
(g) Of these, 38 took M.B. and M.C.; 5 M.B. only.
(h) Passed M.B. and C.M. also.
(i) Half M.B. Examinations:—Anatomy (Descriptive), of 56 candidates, 18 were rejected, and 38 passed; Chemistry, of 66 candidates, 7 were rejected, and 59 passed; Botany, of 69 candidates, 4 were rejected, and 65 passed; Materia Medica, of 64 candidates, 18 were rejected, and 46 passed; Physics, 47 candidates, all of whom passed.
(k) Of these, 11 passed at a subsequent examination within the year.
(l) Of these, 7 passed at a subsequent examination within the year.
(m) Eight of these passed at a subsequent examination within the year.

in July, 1873, the Society renewed their application to the Lord President for support to their Bill equal to that which had been afforded to that of the London University, and to this request his Lordship acceded. He now moved that those letters be entered on the minutes.

Dr. Storrar seconded this, and it was carried.

The letters are as follows:—

Apothecaries' Hall, July 19, 1873.

My Lord,—The Society of Apothecaries has desired me to communicate with you on the subject of a Bill introduced by the University of London into the House of Commons for removing certain disqualifications which prevented it from uniting with any two or more bodies in a conjoint examining board under the Medical Acts.

This Bill was brought in on the 7th instant, was read a second time on the 11th, passed Committee without amendment on the 15th, and was read a third time and passed on the 16th. No doubt appears to be entertained of its being passed by the House of Lords this session.

Under these circumstances, the Society desires me respectfully to draw your Lordship's attention to the correspondence which passed between the Society and the Medical Department of the Privy Council in 1872 and during the present year, and particularly to the letters addressed to the Society by the direction of your Lordship on June 14, 1872, and March 24, 1873. In deference to the suggestion contained in the letter of June 14, 1872, the Society did not proceed with the Bill which it was about to introduce that session.

Acting in the same spirit, the Society, as your lordship will see on referring to the correspondence of 1873, before taking any further steps itself, consulted the Government as to what its own intentions were, and received in reply the communication from the Privy Council of March 24, 1873. Not only did the Society attach the greatest importance to this communication (which was received at the time of the session of the General Medical Council, and laid before that body), but it was regarded by the representatives of the whole medical profession as indicating the policy of the Government on the subject of medical reform.

The Society admits that this letter did not go beyond an expression of what the Government itself was prepared to do; but undoubtedly an inference was drawn from it that the Government would not approve of any measure inconsistent with its own policy.

It would appear from the ease with which the Bill introduced by the University of London is being passed, that the inference drawn by the Society was incorrect.

I am desired, under these circumstances, respectfully to intimate to your Lordship, that the Society will introduce early next year the Bill which it had proposed to introduce last session, but which it refrained from doing in deference to your Lordship's suggestion.

The Society further desires me to express the hope, that in promoting this measure it will receive from the Government the same facilities as have been accorded to the University of London during the progress of their Bill. I have the honour to be, my Lord,

your Lordship's very obedient servant,

(Signed) James Richard Upton,

Clerk of the Society of Apothecaries.

The Lord President of the Privy Council.

Medical Department of the Privy Council Office, July 31, 1873.

Sir,—I am directed by the Lord President to acknowledge the receipt of your letter of the 19th inst., informing his Lordship that the Society of Apothecaries intends early next year to introduce the Bill which it had proposed to introduce last session, and expressing the hope that, in promoting this measure, the Society will receive from the Government the same facilities as have been accorded to the University of London during the passing of their Bill.

In reply, his Lordship directs me to inform you that, if such a Bill were introduced by the Society next session, no general measure of medical reform being then before Parliament, the Government would take the same course with regard to it as they have taken with regard to the University of London Bill of this session.

I am, Sir, your obedient servant,

The Clerk to the Society of Apothecaries. (Signed) JOHN SIMON.

Mr. BRADFORD said he had another resolution to move, but before doing so he would give the Council a *résumé* of the further proceedings of the Society of Apothecaries. In April of the present year the Bill as drawn by Mr. Archibald in 1872 was introduced into the House of Commons by Sir John Lubbock, and they were very fortunate in securing the services of so able and generous a supporter, of whose kindness and that of Dr. Lyon Playfair and Mr. Plunkett, he could not speak too highly. The Bill was scarcely introduced into the House when Mr. Stansfeld proposed an amendment which had a most important bearing on the success of the Bill; for if the Society had resisted the amendment of Mr. Stansfeld, there was no doubt the Bill would have been wrecked. The English Branch Council was, on May 26, summoned to consider the Bill, and some important changes were suggested, which were for the most part accepted by the Society. The Bill was, in fact, recast; and Mr. Stansfeld's amendment having in a modified form been introduced into it, power being reserved to the Privy Council, the Bill passed through the House of Commons. Then a letter was written to the President of the Medical Council, pointing out the motives which had guided the Society in their action. That letter was as follows:—

Apothecaries' Hall, London, E.C., June 5, 1874.

My Dear Sir,—The Society of Apothecaries has given the fullest consideration to the views expressed on the part of the Branch Medical Council, as to the Society, in their present Bill, obtaining a similar power to that obtained by the University of London last year, namely, the power to make examination by the conjoint board an indispensable condition of being qualified to be registered as an apothecary under the Act of 1858. I may state that the personal feelings of the members of the Society would probably be entirely in accordance with the views entertained by the Branch Medical Council on this point. The Society as a body, are, however, for the following reasons, in a position of considerable difficulty. Before any intimation of the views of the Branch Medical Council had been made to the Society, they had been obliged to deal with an amendment of a serious nature, proposed by Mr. Stansfeld, with the view of protecting the alleged rights of women: and the Society had succeeded in coming to a satisfactory arrangement with Mr. Stansfeld in reference to that amendment. I will presently point out the difference which exists between the cases of the University of London and the Society of Apothecaries. But I will first explain that if the Society were to attempt now to introduce a proviso in their Bill, similar to that which exists in the University of London Act, it would be regarded by Mr. Stansfeld as an attempt to take away with one hand what had been conceded by the other, and would be resisted accordingly. I should add, that Sir John Lubbock concurs in the opinion which I am now expressing. The Society is, therefore, unwilling (whatever the personal feelings of the members may be) to run the risk of opposition to their Bill by an attempt to introduce a proviso which does not appear to be an essential feature in their Bill. The following are the distinctions which exist between the position of our Society and the University of London:—(1.) The fact of no woman having obtained a degree or licence from that body, would have rendered it difficult for that sex to obtain a *locus standi* before Parliament, so as to insist on the preservation of rights the existence of which could not be even alleged. (2.) As regards the two bodies in question, a comparison of the number of persons likely to be affected, on the one hand in the case of the University of London, and on the other hand in the case of our Society, will make it clear, that what could and did pass *sub silentio* in the former instance, might rouse strong opposition in the latter. It has, I understand, been urged that the two Colleges have pledged themselves, on the completion of the conjoint board, to abstain from conducting separate examinations. That pledge the Society is equally ready to give if they become part of the conjoint board; a pledge in fact that, having joined, they will not (except under compulsion of a *mandamus*) admit anyone to a separate examination. The two colleges themselves have at present done nothing more. The Society, therefore, for the reasons I have mentioned, are unwilling to imperil their Bill in order to secure what does not appear to them an essential feature of it. I take this opportunity of laying the Bill before you in the form in which it is proposed that it should go through committee, and trust that it may appear in some respects considerably improved by the alterations which have been made, principally at the suggestion of the Branch Council. I must, for obvious reasons, ask you to regard this letter as a private communication, and as not intended for publication.

Yours, very faithfully,

(Signed) WILLIAM DICKINSON, Master.

To Dr. Paget, President of the Medical Council.

Though he had not had an opportunity of communicating with the Society since the Bill had become law, he had no doubt that communications would be entered into with the Royal College of Surgeons, and if the same spirit prevailed now which existed in 1871, perfect success would attend their negotiations. It had been said in public journals that there were at least 500 persons on the Register of the Society of Apothecaries who had not the qualification of the College of Surgeons If that was so they must be very old members; but, on the other hand, there were many members of the College of Surgeons who had only that one qualification. He had taken the pains to ascertain the number of certificates granted by the Society of Apothecaries during 1865-66, 1866-67, and 1867-68, the result of which was that in those three years 747 persons obtained licences, of whom 721 held other qualifications entitled to registration. Not less than 620 were Members of the Royal College of Surgeons of England, about 100 had Scotch or Irish qualifications, only twenty-six appeared to hold no other qualification than that of L.S.A., and not more than ten or eleven of them were found to be resident. In that state of things he thought it would be very unbecoming in the Society of Apothecaries to attempt to set up an examination in surgery. He would now move that the letter from the Society to the President be entered on the minutes, the objection to the publication of it having ceased to exist.

Dr. STORRAR seconded this, and it was carried.

MR. MATTHEW BASS SMITH.

Dr. ANDREW WOOD asked the representative of the Royal College of Surgeons of England if the name of Matthew Bass Smith, which was removed by the Medical Council from the "Medical Register" at its last session, is still on the roll of Members of the Royal College of Surgeons of England.

Mr. QUAIN stated that the Council of the College of Surgeons in June, 1872, resolved to remove the name of Matthew Bass Smith from the list of its members, in consequence of circumstances which occurred in a trial for manslaughter; but having referred the case to the solicitor of the College, they were informed that the only by-law of the College under which the case could be included did not authorise the Council of the College to take that step. Then in April, 1873, after the action of the General Medical Council in the case, the solicitor of the College of Surgeons, when again applied to, gave his opinion to the same effect. He was, however, glad to say that the Council of the College have had a by-law framed to enable it to attain the object desired; but that delays occurred in obtaining any new by-law, as all such laws required the sanction of high official persons. The Council of the College, however, earnestly desired to obtain power to remove the name of that person and of others in similar circumstances hereafter.

Mr. BRADFORD said that Mr. Matthew Bass Smith had had the audacity to summon the secretary of the Society of Apothecaries and the secretary of the Royal College of Surgeons to prove in a court that he was still on their lists.

The Council adjourned at six o'clock.

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NINTH DAY.—SATURDAY, JULY 18.

The Council reassembled at two o'clock.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Dr. APJOHN moved—"That the President be requested to ask Mr. Macnamara, for the information of the Medical Council, whether the Royal College of Surgeons in Ireland has or has not withdrawn from the scheme of conjoint examination adopted by the King and Queen's College of Physicians (June 28, 1872), and agreed to by the University of Dublin, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall of Ireland, and sanctioned by the General Medical Council (March 31, 1873)."

Mr. MACNAMARA said it was essential for the Council, in order to be in a position to understand his answer to Dr. Apjohn's question, that he should give a brief sketch of the constitution of the Royal College of Surgeons in Ireland. By its charter, its affairs are to be administered by a President, Vice-President, and nineteen members of Council, annually to be elected by the Fellows on the first Monday in June. On the first Monday in June the entire Council went out of office, but were eligible for re-election should they so wish it, and should it so seem fit to the electing body, the Fellows at large. When once the Council was sworn into office it became the executive body of the College for its year of office, and the Fellows at large had no other power than that which he would describe. By a requisition signed by not less than twelve Fellows, and addressed to the President, they might convene a general meeting of the Fellows, and then pass resolutions recommending such or such a course to the Council. Of this privilege the Fellows availed themselves, and at a meeting of the College, held on March 19, passed this resolution —"That neither the interests of the profession nor those of the public will be served by the establishment of the conjoint scheme

now before the College." This resolution of the Fellows was brought under the notice of the Council of the College—the executive body of the College—at a special meeting of the Council held on March 23, when it was proposed and seconded —"That, as the Councils of the College elected in 1871, 1872, and 1873 agreed with the University of Dublin, the King and Queen's College of Physicians, and the Apothecaries' Hall, to form a conjoint scheme of examination for Ireland, which scheme has been confirmed by the existing Council; and as the Council of 1872 has, in the most direct manner, conveyed its sanction and approval of the scheme above noticed to the General Medical Council, which body has declared its approval of it, it is not competent for this Council to recede from its obligations to the medical authorities above named, and to the General Medical Council, without incurring a charge of a breach of faith. That, under such circumstances, this Council, as the executive of the College, feels bound most respectfully to dissent from the recommendation of the College at its meeting held on the 19th inst." To this the following amendment was proposed and seconded:—"That the consideration of the subject be adjourned till after the meeting of the College in May." The amendment having been put from the chair, was declared lost. The original motion having been put from the chair as a substantive motion, was declared carried, and it was then resolved—"That, as this Council is prepared to give its most earnest consideration to the opinions expressed by the Fellows, it is now remitted to a special committee to consider the objections which may be urged against certain of the details set forth in the report of the Committee of Reference, and to state to the Council how far those details may be amended without prejudice to the general principles of the scheme." There seemed to be the most intense difficulty in conveying to the minds of his Irish friends the difference between the conjoint scheme and the plan for the working out of the details of the conjoint scheme. The conjoint scheme and everything connected with it had been sent forward in report after report during the whole time they were negotiating to the Fellows of the College. It was but due to the Council of the Royal College of Surgeons that he should mention that the report was always in the hands of the Fellows several days before the annual meetings took place. Those meetings were always held in May, and the election of the Council took place in June. A week or ten days before the annual meeting they rendered an account of their stewardship in a form which was sent forward, and one of those forms which he held in his hand stated that the conjoint scheme was ready for their inspection, and to carry out the details of the scheme referees were required. The Fellows wrote to the Council calling upon them to appoint referees. Some members of the Council were hostile to the conjoint scheme; others were hostile to the plan of working it—the details—which had never been brought before the General Medical Council, and he had always been under the impression that it was not necessary to bring them before that Council. He tried to impress that upon his friends in Dublin, and he was very happy to find that the opinion he expressed in Dublin had been amply corroborated by what had passed at the Council Board. The referees appointed in pursuance of the direction of the College of Surgeons were himself and another member of that body, and after careful deliberation they brought up a plan for working the conjoint scheme. That plan did not please a number of the Fellows, and they called for a meeting of the College at large, at which they discussed, not the scheme, but the working details of the scheme, and took exception to them, as they had a perfect right to do. Exactly a similar course had been pursued at the College of Physicians. They had taken up the working details of the scheme sanctioned by the General Council. They were only completed on the 7th of the present month, and were put into his hands for the first time during the sittings of the Council. They had not yet been discussed in the Council of the Royal College, but they would be when he returned, and the probability was that they would have conferences to try and adjust the minor difficulties. At their meeting of which he had spoken the resolution proposed and seconded was—"That it would be a breach of faith to go back from what we have done; that under such circumstances this Council, as the executive of the College, feel bound to dissent from the recommendations made to them." (Cheers.) That resolution was put to the vote. Seventeen out of twenty-one members were present; one of whom happened to be the President of the College, who is debarred from voting, except to give a casting vote. He, however, spoke loudly and determinately upon the point, saying that their honour would be sacrificed if they receded; and upon the vote being taken, only two out of the sixteen capable of voting were against the resolution, whilst fourteen nailed their colours to the mast, and determined to maintain the honour of the College. Then came the month of June, when the Council were to be re-elected or rejected. If the Fellows had been serious in their opposition to the conjoint scheme they would have sent the councillors about their business; but what was the result? Of the fourteen who were determined to uphold the honour of the College, three, for various reasons unconnected with the conjoint scheme, determined not to seek re-election, so that, including the President, twelve went for re-election, and only one of them was not re-elected, and that not on account of his supporting the scheme; but one of the two who opposed it was not re-elected: so that the opposing sides came out of the battle—two men having lost one; and fifteen men having lost one. Nothing could demonstrate more clearly than that the determination of the Council to uphold the conjoint scheme. During the number of years that he had been a Fellow of the College he had never seen such a large attendance of Fellows, upwards of 200 having recorded their votes, and thereby returned to their posts the men who were determined to uphold the honour of the Royal College of Surgeons in Ireland. (Cheers.)

Dr. Apjohn moved, and Dr. Parkes seconded—"That the Council thank Mr. Macnamara for his reply to the inquiry of the President, and are glad to find there is a fair prospect that the Royal College of Surgeons in Ireland will eventually give its influential co-operation in carrying out the Irish scheme of conjoint examination, which has been sanctioned by the Medical Council."

The motion was carried.

### PHARMACOPŒIA COMMITTEE.

On the motion of Dr. Sharpey, seconded by Dr. Pyle, it was agreed—"That the following report of the Pharmacopœia Committee be received and entered on the minutes":—

*Report.*—1. The Pharmacopœia Committee beg to report that the resolutions adopted by the Council, at its last meeting, in reference to the publication of a reprint of the Pharmacopœia, and of certain additions in the form of a supplement, have been carried out. 2. Five thousand copies of the reprint have been prepared, and with them a corresponding number of the additions have been bound up for sale, without any addition to the price of the work. 3. Ten thousand copies of the additions have been bound separately. The price of these copies has been fixed by the Executive Committee at 9d. each. 4. The cost of printing the reprint and the additions, together with the amount paid to Dr. Redwood for preparing and seeing both works through the press, amounts to £738 18s. 6d. 5. Nearly 1000 copies of the reprint, and 6500 copies of the additions, have been sold since publication; realising the sum of £376 13s. 6d., and leaving on hand stock the value of which is estimated at £391 16s. 6. The Committee beg to recommend that the Pharmacopœia Committee be reappointed, and that it consist of five members. 7. They also recommend that the duties of the Committee be to superintend all matters relating to the Pharmacopœia, more especially to consider the publication hereafter of a new edition of the work, and of the steps which should be taken for its preparation. 8. The Committee beg to state that there are no outstanding liabilities on account of the Pharmacopœia. 9. A statement of the debtor and creditor account of the reprint and additions of the Pharmacopœia is appended.—W. Sharpey, *Chairman*, July 16, 1874.

*Statement of "Pharmacopœia" Account* (1867) *with Additions* (1874).

*Expenditure.*

| | £ | s. | d. |
|---|---|---|---|
| Reprinting 5000 copies of the Pharmacopœia, 1867 .. ... | 488 | 5 | 0 |
| Printing 5000 copies of Additions, and binding in cloth, lettered, etc. ... ... ... ... ... ... ... ... | 105 | 13 | 6 |
| Ditto ditto ... ... ... ... ... ... | 95 | 0 | 0 |
| Paid Dr. Redwood ... ... ... ... ... ... .. | 50 | 0 | 0 |
| | 738 | 18 | 6 |
| Balance in favour... ... ... ... ... ... | 529 | 11 | 0 |
| | £1268 | 9 | 6 |

*Receipts.*

| | £ | s. | d. |
|---|---|---|---|
| By Sale of 988 copies of reprinted British Pharmacopœia ... | 205 | 4 | 0 |
| ,, Sale of 6526 copies of Additions to Pharmacopœia (1867) ... | 171 | 9 | 6 |
| | 376 | 13 | 6 |
| ,, Estimated value of 4000 copies of reprint ... ... ... | 800 | 0 | 0 |
| ,, Value of 3400 copies of additions... ... ... ... ... | 91 | 16 | 0 |
| | £1268 | 9 | 6 |

The report was then adopted, the words in paragraph 7 from "more especially" to the end of the paragraph being struck out; and the following committee was named:—Dr. Quain (chairman), Dr. Begbie, Dr. Bennett, Dr. Sharpey, and Dr. A. Smith.

On the motion of Sir Dominic Corrigan, seconded by Dr. Aquilla Smith, it was agreed—"That the attention of the

Pharmacopœia Committee be requested to the desirability of correcting, in any future edition of the Pharmacopœia, the approximate solubilities of salts and other substances, under the head of 'Characters and Tests,' instead of the present indefinite information afforded in the present Pharmacopœia."

APOTHECARIES' HALL, IRELAND.

Dr. LEET moved—"That this Council consents to the proposal that the Apothecaries' Hall of Ireland be allowed to appoint three examiners, instead of one, in practical pharmacy, under the scheme for the formation of a conjoint examination in Ireland, bearing date June 28, 1872."

Dr. QUAIN seconded this, and it was carried.

EXAMINING BODIES.

The list of examining bodies whose examinations fulfil the conditions of the Medical Council, as regards preliminary education recommended by the Executive Committee, was submitted to the Council, viz.—"The Committee recommend that the list be the same as last year, with the addition of 'the Oxford and Cambridge Schools' Examination Board.'"

The recommendation of the Executive Committee was agreed to, provided the subjects examined on shall be such as are required by the General Medical Council.

Dr. HUMPHRY moved—"That in addition to the examinations already recognised by the General Medical Council, the junior local examinations conducted by the English universities should be recognised for the preliminary education of medical students, provided that Latin and mathematics, and also one of the following optional subjects—viz., Greek, French, German, natural philosophy, including mechanics, hydrostatics, and pneumatics- are among the subjects included in the pass certificate." He said it was desirable that this permission should be given without delay. The local examinations were so well known and so highly esteemed throughout the country, that he need make no remark upon their efficiency. The junior examinations of Oxford, Cambridge, and Durham fulfilled the requirements of the General Medical Council, and the schoolmasters of the country were very anxious that the number of examinations required by the several licensing bodies should not be increased. A report by a committee of the school examinations which he held in his hand called special attention to that point. It spoke of the variety of the examinations creating a difficulty in school work, partly by the diversity of subjects and partly by the irregularity of the times at which boys were to be examined; and it recommended that it would be better to adopt a system already in use than a new one. The Committee of Reference desired that as far as possible these local examinations should be used by medical students to qualify them for entrance into the profession, and it would be far better than that there should be several examining boards instituted by the examining authorities, which would be less likely to take up the subject in a large and liberal style. They were therefore anxious that the sanction of the Council should be given to the recognition of the junior as well as the senior examinations of the English universities, with the proviso stated in the resolution.

Dr. STORRAR seconded this.

Mr. QUAIN objected to competition being compulsory in examinations, and to the arrangement of the names of men who were not seeking honours, in the order of merit with which they passed their examinations. By that course many were branded for life; but he had no objection whatever to a pass examination with voluntary competition for honours afterwards. He wished to know whether in these examinations there was any compulsory competition or classification of the students in first, second, and third class, or if there was a pass examination to which a person might submit himself without any statement being made as to the position he occupied.

Dr. HUMPHRY said that the regulation in the Cambridge examinations was this—"The names of the boys who pass with credit will be placed alphabetically in three honour classes. The names of those who pass to the satisfaction of the examiners, yet not so as to deserve honours, will be placed alphabetically in a separate class." He believed that substantially the same rule was adopted by the other universities.

Dr. PYLE read the following Durham regulation:—"All who pass any of these examinations will be classed. Those who pass with distinction will be arranged at the discretion of the examiners, in classes not exceeding three in number. The rest will be placed together in one class. The names in each class will be arranged either alphabetically or in order of merit."

Dr. ACLAND read the Oxford regulation:—"The names of the successful candidates will be published, arranged in three divisions: those in the first division will be placed in order of merit; those in the second and third divisions alphabetically."

The motion was carried.

CONJOINT EXAMINING BOARD FOR ENGLAND.

Dr. BENNETT moved—"That the Council do express their satisfaction at learning from the statement of the President, and from the documents laid before them by the representative of the Royal College of Physicians of London, that the arrangements for carrying out the scheme for a Conjoint Examining Board for England are so far advanced as to render it probable that the scheme will be in operation during the present year, and that, with the exception of the Society of Apothecaries, all the English licensing bodies have concurred in the scheme, and have appointed their representatives on the Committee of Reference, by whom the necessary regulations have been framed. The Council are further pleased to learn that the Society of Apothecaries have obtained by a recent Act of Parliament the means they required to enable that body also to join the scheme, and thus to fulfil the desire expressed by the Council in their minutes of March 1, 1872, that the scheme as sanctioned by them should be rendered a complete scheme for a Conjoint Board for England."

Mr. BRADFORD seconded this.

Dr. A. WOOD said they were called upon to express their gratitude for favours to come, and were told that however complete the scheme might appear it could not get on till some hitch about the College of Surgeons (of which he did not know the nature) was got over. The Scotch bodies had been told they were doing nothing, and that the success of the English Conjoint Board would put them all to shame. He wanted to know whether they might congratulate themselves upon the prospect of this matured English scheme starting during the next year.

The PRESIDENT said he had heard, though not officially, the nature of the difficulty felt by the College of Surgeons. Some time ago the College received legal opinions of the very highest character as to their power of joining in the scheme, and those opinions being favourable, there seemed to be nothing in the way. Lately, however, some doubt had been thrown upon the soundness of the opinions.

Dr. BENNETT added that it was simply with reference to the appointment of the examiners in surgery.

Mr. MACNAMARA said they had been sadly discouraged in Ireland from prosecuting their efforts to establish a conjoint board by the persistent statement that there was no such thing in existence in England, and that, therefore, it was premature to talk about one for Ireland. Sir D. Corrigan had said, on more than one occasion, that there was no conjoint scheme sanctioned by the Council, and he was convinced that was true. The Council, on March 1, 1872, passed a resolution expressing its desire that means might be found by which the University of London and the Apothecaries' Society might be enabled to join in a scheme so as to render it a complete scheme for a conjoint board for England. It was clear, therefore, that the Council had not yet sanctioned the adhesion of those two bodies.

The PRESIDENT said he had already called attention to the scheme which was set out in the minutes of February 29, 1872, and the first resolution was a complete answer to Mr. Macnamara's statement—"That a board of examiners be appointed in this division of the United Kingdom by the co-operation of the Royal College of Physicians of London, the Royal College of Surgeons of England, and of such other of the medical authorities in England mentioned in Schedule (A) to the Medical Act, as may take part in its formation," and so on. By that resolution the Council approved the subsequent adhesion of any English bodies which had not then joined.

Mr. MACNAMARA thought he had done good service by having brought out that point so clearly.

Dr. BENNETT said the University of London had actually joined, and had taken a prominent part in drawing out the regulations, and now the Apothecaries' Society were in a position to fulfil the desire expressed by the Council in 1872. There was no further necessity for the Society to apply to the Council, as they had full liberty from the authority already derived from the Council.

The motion was carried.

FINANCE COMMITTEE.

The following report was read and entered on the minutes:—

*Report.*—The Finance Committee beg leave to submit to the Council, in the annexed table, a statement of the income and of the expenditure of the

Council during each of the years 1872 and 1873, and of the estimated income and expenditure for the year 1874. It will be seen that the actual income for the year 1873 was less by the sum of £768 16s. than that of the year 1872. This difference is almost entirely due to the exceptionally large amount of fees received for registration by the several Branch Councils in 1872, and not to any special decrease in the income of the year 1873, which was not below the average. It will also be seen that the balance in favour of income in 1872 was £2260 3s. 7d., whilst in 1873 the balance amounted to only £212 17s. 6d. This difference is due to the fact of the Council having sat during only five days in 1872, whilst in 1873 the sittings of the Council extended to nine days; further, it will be observed that a sum of £598 10s. has been expended in 1873 on account of the Visitations of Examinations. On this point the Committee think it may interest the Council to know that a further sum of £301 18s. has been paid on account of these Visitations, which will be included in next year's account, making the entire cost of the Visitations £900 8s. With respect to estimate for the present year, the income will probably not be less than that of the preceding year, whilst the estimated expenditure has been necessarily increased to meet the charges which will accrue in connexion with the occupation of the new premises. The Committee beg to mention that they have received a letter from the Clerks to the Council, Messrs. Bell and Roope, which they have referred to the Executive Committee, who have authority to deal with the subject of the letter, in accordance with the Minutes of the General Council, April 3, 1873.—Richard Quain, M.D.—July 17, 1874.

| | *Actual Income for the Year* 1872. | | *Actual Income for the Year* 1873. | | *Estimated Income for the Year* 1874. | |
|---|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Fees received by— | | | | | | |
| Branch Council for England ... | 3250 10 0 | | 2613 0 0 | | 2500 0 0 | |
| " " Scotland ... | 724 10 0 | | 883 5 0 | | 800 0 0 | |
| " " Ireland ... | 1058 5 0 | | 772 15 0 | | 700 0 0 | |
| | | 5033 5 0 | | 4249 0 0 | | 4000 0 0 |
| Dividends received by— | | | | | | |
| Branch Council for England ... | 675 12 6 | | 709 11 3 | | 700 0 0 | |
| " " Scotland ... | 62 15 0 | | 68 13 10 | | 65 0 0 | |
| " " Ireland ... | 62 11 6 | | 74 5 6 | | 70 0 0 | |
| | | 800 19 0 | | 852 10 7 | | 835 0 0 |
| Sale of Registers ... ... ... | 12 10 0 | | 12 12 6 | | 12 0 0 | |
| Sale of Pharmacopœias ... ... | 237 12 0 | | 223 17 6 | | 500 0 0 | |
| Penalties... ... ... ... ... | 22 10 7 | | ... ... | | ... ... | |
| | | 272 12 7 | | 236 10 0 | | 512 0 0 |
| | | £6106 16 7 | | £5338 0 7 | | £5347 0 0 |

| | *Actual Expenditure for the Year* 1872. | | *Actual Expenditure for the Year* 1873. | | *Estimated Expenditure for the Year* 1874. | |
|---|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Expenses of— | | | | | | |
| General Council ... .... ... | ... ... | 2306 11 11 | ... ... | 3945 14 6 | ... ... | 5000 0 0 |
| Branch Council for England ... | 562 6 2 | | 573 9 5 | | 600 0 0 | |
| " " Scotland ... | 308 9 11 | | 272 0 9 | | 300 0 0 | |
| " " Ireland ... | 269 5 0 | | 333 18 5 | | 300 0 0 | |
| | | 1140 1 1 | | 1179 8 7 | | 1200 0 0 |
| Actual total expenditure ... | 3446 13 0 | | 5125 3 1 | | Estimated total expenditure ... | 6200 0 0 |
| Actual income ... | 6106 16 7 | | 5338 0 7 | | Estimated total income... ... ... | 5347 0 0 |
| Balance in favour of income ... | 2660 3 7 | | 212 17 6 | | Estimated balance against income ... | 853 0 0 |

The Report was then adopted.

RETIREMENT OF DR. PAGET FROM THE OFFICE OF PRESIDENT.

The President: The time has now come at which I must carry out the intention expressed at an early part of these sessions.

Sir William Gull: Allow me, Sir, on behalf of the Council, to interpose for a few moments. Before you express any opinion as to your continuance in office, I have to hand you the document which I hold in my hand, signed by all the members. It is the unanimous wish of this Council, and it would be very agreeable to this Council, that you should retain your office for the full term. (Cheers.) Sir William Gull then read the letter, and handed it to the President.

The President: I have known that this requisition has been circulated for some days, and I need not assure you that it has had my respectful consideration, and, more than that, my very earnest, long-continued, and most careful consideration. If it has not changed my purpose—and it has not,—I need scarcely tell you what feelings of pleasure I must have in the continued kindness of those for whom I feel so much esteem and regard. This paper which I have received—this sheet of autographs—I shall certainly preserve as one of the most precious of my worldly possessions. (Cheers.) Of course, at this moment, which is the moment of terminating my association with my colleagues, I must have some necessary pain in breaking association with colleagues with whom I have worked so long and so very happily. Though I cannot be so vain as to suppose that the Council will not go on very well without me, yet, knowing you so well, I am vain enough to hope at least that you will not cease to be friends of mine during the rest of our lives. (Cheers.) Gentlemen, I cannot say any more. I will leave the insignia of my office, which are the keys of the strong box, in the hands of Dr. Stokes to give to my successor. (Loud cheers.)

Dr. Paget then took leave of the Council, and the chair was taken by Dr. Stokes.

Dr. Andrew Wood: I know well the services Dr. Paget has conferred on the Council, both as a member and as President; and I can honestly say I never recollect a single occasion on which Dr. Paget avoided any sacrifice he could make for the purpose of expediting our business. His manners have been always courteous, his conduct always impartial, and his judgment always discreet and able, and under his presidency we have enjoyed a period of peace and happiness which none of us will ever forget. I further say, that if our deliberations have been of use to the profession—and I have heard that they have,—Dr. Paget, as our President, has in a large measure contributed to that desirable consummation. I beg to move —"That this Council cannot part with their late President, Dr. Paget, without expressing to him their great obligations for his services as their President—services which have been so ungrudgingly devoted, at large sacrifices to himself, for the good of the Council and the profession,—for the uniform courteousness of his demeanour, for the impartiality of his decisions, for the discretion of his conduct in the chair, which have secured for him the esteem and affection of the members of the Council, and have conduced greatly to the efficiency of the action of the Council in raising the status of the medical profession."

Sir Dominic Corrigan seconded this, and it was carried by acclamation.

Strangers were then ordered to withdraw, and upon their re-admission Dr. Stokes announced that the Council had elected Dr. Acland to be President.

Dr. Acland upon taking the chair said: Dr. Stokes, Sir William Gull, and members of the Medical Council, I have now to thank you for the high honour which you have been so good as to confer upon me; and in saying so permit me to add that I confess there is one feeling which tempers that great honour with a certain sadness—it is that my presence in the chair should deprive you of the services of the able and estimable man who has just quitted our Council. Indeed, when I look upon the roll of presidents whom your votes have placed in this honourable and responsible position, when I remember the character and powers of Sir Benjamin Brodie, of Joseph Henry Green, of Sir George Burrows, and of Dr. Paget, who has just left us, I must truly say it would be an act of temerity to presume to succeed them, even at your desire, if it were not for the profound conviction I feel of the justice with which you treat your President, and the unceasing support which you accord to him. Many gentlemen over-estimate the duties and responsibilities assigned to them, whilst others err in under-estimating them; but I, who have served you from the time the Act of 1858 imposed certain duties upon us, am not likely to forget the responsible duty which your kindness has conferred on me. I can only say, in all sincerity, that after twenty-nine years of public life, as it has now towards the close of my

working life befallen me that after the mature acquaintance of fifteen years you have requested me to take so high a position, this henceforward will be my first and chiefest care. In conclusion, I am sure that our heartiest and kindest feelings will follow Dr. Paget—I will not say into his retirement, but into the high and important duties he has to discharge in one of our national universities. We shall follow him with feelings of interest and kindly affection which none of us are likely to diminish. (Cheers.)

The Council, after transacting the usual formal business, concluded its sittings.

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By an error of our reporter last week, Mr. Quain was made to read a wrong passage from the Report on Examinations at the General Medical Council. The first few words of both passages are the same, hence the error. The passage which Mr. Quain *read* was as follows :—

"In reviewing this examination, your visitors cannot avoid expressing their opinion that there is room for considerable improvement in the mode in which the proficiency of the candidates is tested in the important subjects of anatomy and physiology. It appears to your visitors that the principal reason for dividing the professional examination into two parts —one including the subjects of anatomy, physiology, and chemistry, the other embracing medicine, surgery, materia medica, midwifery, and medical jurisprudence—is to enable a high standard of knowledge to be insisted on by the examiners, since the student is able to give his undivided attention to each class of subjects long enough to acquire a thorough practical knowledge of them."

Instead of the above, the following passage was erroneously inserted :—

"In reviewing this examination, it appears to us that the examination in clinical medicine might be somewhat extended with advantage. A written report of two or more cases by the candidate would assist the examiner in forming his judgment, as it is difficult to avoid putting leading questions to the candidate when the examiner aids, as it were, in the examination of the patient. More specimens should be shown under the microscope, and pathological specimens might be exhibited. The examination on clinical surgery was more extended, but we noticed that no instruments were exhibited to the candidate, that there was no practical examination on bandaging, nor on the management of fractures and dislocations, no pathological specimens were shown, and still less was there any attempt made to test the candidate's knowledge of practical surgery by the performance of operations on the dead subject."

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Oxide of Zinc in Diarrhœa.—M. Revillout states that in the wards of M. Damaschino oxide of zinc is often prescribed with great success in all the forms of diarrhœa. The usual formula is three grammes and a half of the oxide, and half a gramme of bicarbonate of soda, divided into four portions, to be taken during the day. The soda is added to prevent the production of a soluble salt of zinc with the acids of the stomach. The measure is very efficacious in all forms of diarrhœa, even that met with in phthisis. M. Revillout has also seen many cases in which champagne, administered while effervescing, has proved an excellent remedy in vomiting and the hectic diarrhœa that often accompanies it in debilitated subjects. Young infants, too, suffering from constant vomiting of food, have been enabled to digest raw meat by employing champagne as a drink.—*Gaz. des Hôp.*, July 18.

Injection of Ergotine in Fibroid Tumours of the Uterus.—In a communication to the *American Journal of Obstetries* for May, Prof. Hildebrandt, of Königsberg, states that he continues to hold the high opinion of the subcutaneous injection of ergotine which he formerly did (*Medical Times and Gazette*, July 27, 1872, p. 101). In some patients it causes severe pain, compelling rest for an hour or two, but in many cases after he has performed the injection the women are able to walk home on foot. He has himself never met with abscesses, and he attributes their occasional occurrence in the practice of others to the too superficial introduction of the canula. He takes up a firm fold of skin and inserts the canula, not obliquely, but perpendicularly, into the crest of the fold to the depth of one-half the length of the canula, so that the fluid may always enter the thick adipose subcutaneous cellular tissue. As a rule, only the first three or five injections are painful, the others being more or less easily borne.

# ORIGINAL LECTURES.

## LECTURES ON CERTAIN CLINICAL VARIETIES OF CONSUMPTION.

DELIVERED AT THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

By JAMES E. POLLOCK, M.D., F.R.C.P.,
Physician to the Hospital.

(*Continued from page* 667, *vol.* i. 1874).

### Lecture III.

Age is an important modifying agent in every case of phthisis; but although the subject is a large one, I can only give it here a passing notice. The first medical report of this hospital gives twenty to thirty as the age at which phthisis is most prevalent. I will not attempt to detain you by reference to figures requiring an effort of memory, but one or two clinical facts are worth remembering. Phthisis appears to attach itself remarkably to the two periods of growth and decay. Under twenty-five years of age are found the following :—

1. Acute phthisis.
2. Strumous phthisis.
3. The ordinary continuous form of the disease (in greatest numbers).
4. The class in which cavity is rapidly formed.
5. The large class arising out of acute disease.
6. Marked hereditary predisposition exhibits its influence at this period.

In advanced life the disease is slower. Insurance offices act on the supposition that after forty-five the danger from phthisis ceases; but very many die of it after this age. Brinton considered that after forty *half* the danger was over. I have notes of 174 cases over forty-five years of age. Of these thirty-three were in the first stage, seventy-one in the second, and forty-two in the third. *Two thirds* were *males*. The phthisis of early life is characterised by destruction of pulmonary tissue without limit, by inflammatory actions almost continuous; while concentration of the disease in one part of the lung, moderated and remittent inflammatory attacks, and excessive tendency to degeneration mark the phthisis of age. Chronic deposits in the lung, which have been tolerated for years, often break up in old age, and this is called *senile phthisis*. This form is often fatal without any tubercle. Chronic indurations, fibrous over-growths, which degenerate and soften, break down into cavities of a dark sloughy appearance without membranous lining. Profuse hæmoptysis is rare. Out of 351 cases in my own practice, only forty occurred after forty years of age. Pain, fever of a high character, and gastric disorder are rare. I do not propose to describe the symptoms of senile phthisis, but to call your attention to the fact that age modifies the disease both in its symptoms and progress, and especially to notice the more than doubtful character of cases which often pass for bronchitis in the aged, but which are in reality ulcerative diseases of the lung, in which old deposits resulting from attacks in early life often break up and assume finally the true characters of phthisis.

*Hæmoptysis* is a symptom of so much importance, both to the patient and his friends, that I must detain you for a few minutes while we consider its meaning and bearing on the progress of our cases. For practical purposes we may say that there are two varieties—the *congestive* and the *mechanical*. The first is common to all stages of phthisis, and is, in fact, a congestion of the lung, the hæmoptysis being only the symptom. The latter is almost confined to the stage of cavity, and is nearly always due to the rupture of an aneurismal dilatation of a branch of the pulmonary artery passing through a cavity, the walls of the vessel having shared in the ulcerative destruction of all the lung tissues. You will remember how bloodvessels resist ulceration, as is so often seen in surgical cases; and it is truly wonderful to reflect on the rarity of fatal pulmonary hæmorrhage when we see daily in our dissections such entire destruction of so vascular an organ as the lung. It seems necessary to the production of the fatal accident that the coats of the vessel should have become diseased and undergone dilatation, for in all our cases a patient dissection will not fail to discover this lesion.

This form of hæmorrhage is perhaps always fatal, although not always at the first attack. If nature, however, gives us time and makes a clot, we may assist by using those remedies

which promote coagulability of blood and influence the contractility of the vessels through their nerve-supply. To this class of remedy belong ergot, turpentine, alum, and gallic acid, also acetate of lead, which sometimes acts like a specific.

Some late experiments of Dr. Blake in the *Journal of Anatomy and Physiology*, show that the injection of acetate of lead into the vessels causes contraction of the arterioles of both the pulmonary and the systemic circulation.

Cases of *very profuse hæmoptysis* are much more common in the male than in the female. In 351 of my own cases, 267 were men. The age most attacked was between twenty and thirty; the youngest was a girl of eleven. Children, as a rule, are free from this accident. It is not to be asserted that all these cases had pulmonary aneurism, but all those who actually die of hæmorrhage may be presumed to suffer from this lesion.

The *congestive* form of hæmoptysis is more common, and considering its results, is perhaps the more serious affection of the two. It is common at the outset of continuous progressive phthisis; but acute tuberculosis has no hæmoptysis. It is very important that you should regard this disorder as an attack rather of congestion of the lung than as a hæmorrhage. It is astonishing how we are all led away by names; and if called suddenly to such a case the practitioner will naturally think of the best styptic remedy, and hasten to save the patient from perishing by loss of blood. These cases do not die of hæmorrhage, and, indeed, are all the better for the depletion.

But how are you to distinguish the two cases—the mechanical loss of blood to which you must fly with all your remedies, from the congestive, where you may let the blood flow with advantage to your patient?

In *mechanical hæmorrhage* your patient has but one symptom—loss of blood. He is pale, weak, haggard, with a cool hand and failing pulse; he gasps, for his heart is weakened by the loss, and should he become more anæmic he will die. And this will have come upon him all at once, perhaps while he was stooping or coughing violently, or while he was eating. In congestive hæmorrhage your patient has been forewarned. He has felt his breath tight and short, perhaps has had pain through the chest to the shoulder. He is hot and flushed, and his pulse is tense or bounding. His temperature invariably rises, and in a sharp attack will touch 103° or 104°. Repeated florid hæmorrhages occur, a cupful at a time, yet your patient is not readily exhausted by such losses. Indeed, he feels relieved in breath and cough, and excepting that he is alarmed by the sight of so much blood, does not feel very ill. If you examine his chest you will find dulness in a patch over a portion of the lung, and a more or less fine crepitus. You are, in fact, looking at a case of pneumonia, and you had better call it so, and treat it accordingly. Our ancestors would have bled such a case, and I am not sure that they would have been wrong. We give saline medicines and ice, slightly purge with salts, cup over the chest, and keep the patient quiet and his room cool; and we forbid the use of styptics. After a while there is relief, and the patient is better, his chest symptoms are less urgent for some time, and he regains flesh, but probably not up to the point which he had reached before the hæmorrhage. I believe it will be found that an increase in the extent of physical signs will have occurred after attacks of congestive hæmorrhage. In other words, the congested portion of lung never entirely clears up. You will notice subcrepitant sounds at the part which during the hæmorrhage presented dulness, bronchial breathing, etc. The prognosis in cases of hæmoptysis will therefore be derived from a careful consideration of the cause, and unless the patient be greatly exhausted by loss of blood, and especially if the digestive system be unimpaired, you may safely look for a tolerably long period of quiescence after the attack. I have often had occasion to observe that some of our most chronic cases have commenced by a smart hæmoptysis. As regards the continuance of the hæmorrhage during an attack, you can have no better guide than the pulse and the temperature. With a maintained temperature of 100° or 103°, and a rapid, full, and somewhat hard pulse, you may be sure that a patient when spitting blood will shortly have a recurrence of the attack. I know of no symptom by which we are enabled to prognosticate an attack of profuse mechanical hæmoptysis. The patient often dies as if shot, and in many instances before the resident medical officer can reach the ward, while dissection shows the whole of both lungs filled with blood. Chronic cases, which have been overdone with oil and iron, are very subject to sharp attacks of hæmoptysis.

*Temperature.*—The observations which I have to make on temperature partly confirm those of other observers.

The clinical value of the thermometer is very great in phthisis, and is especially important as indicating congestion or inflammatory events.

It is first necessary to establish what is the normal temperature of phthisis when in a quiescent state, no special congestions being present. Mr. Bartlett has kindly conducted observations for me through all the hours of the day and night, and we may conclude that *in ordinary quiescent phthisis* the minimum temperature, 98° or 97°, is in the early morning (about three to six or seven). The higher temperature, 99° to 100°, occurs about three to six or seven in the afternoon. Such cases are generally gaining, certainly not losing flesh; nutrition is good; chills and sweatings are absent; yet withal there may be a slight, steady, and progressive advance in the physical signs, and the crepitant sounds may be slowly on the increase.

This is also true of *weight*. An increase of weight may take place while the physical signs are advancing. In *hæmoptysis* of the congestive kind, I have observed a pretty constant relation of high temperature, the thermometer registering up to 102° to 103° and 106°. The entire thermometrical range in phthisis is small, and may be stated as from a *sub*-temperature of 96° to 106°. It is very rarely above this. A pretty free hæmoptysis will cause a fall, and the lowered temperature may be maintained even in cases in which the hæmoptysis does not recur. In recurring hæmoptysis a high temperature is maintained, and is a most valuable guide both to prognosis and treatment. The *mechanical* hæmoptysis, due to ruptured aneurism of the pulmonary artery, is not accompanied by rise of temperature. Considerable congestion accompanies this condition. A sustained fall of temperature to 95°, or lower, after a high range, is not uncommonly the precursor of death.

I am not prepared to state whether high temperature in phthisis is the result of the *constitutional disorder* or of the *local irritation*. The question is ably discussed by Dr. Ringer and others, but has not much practical value. These conditions are so united (constitutional disorder and local irritation) that to me they seem inseparable. In practice it may be accepted that while high temperature is not the measure of the extent or amount of local mischief, it is never present without inflammatory congestion. A small deposit in the lung, if undergoing inflammatory change, will run the temperature up to 103°, while a more diffused and extensive deposit in the lung may slowly soften with a thermometrical range of one or two degrees only, as is seen in chronic quiescent phthisis.

The existence of *gastric disorder* is so grave a complication of phthisis, that it enters into all questions of prognosis, and is only second in importance to congestions of the lung. Disorder of the mucous gastro-intestinal membrane is recognised by the tongue, which presents several varieties of morbid conditions, and by nausea, or absolute intolerance of food, vomiting, and diarrhœa. Your patient is thus reduced by both insufficiency of food and by the waste of diarrhœa. The tongue is generally furred at the back and red in front, or it may have a red central stripe and red edges and top, or it may be simply red all over, presenting a stripped smooth appearance. This last is the worst variety of tongue seen in phthisis, especially when it is accompanied by aphthæ. A curious fact about this red tongue is that it may exist for a long time without either diarrhœa or vomiting, but it is most commonly associated with the former, and the intestine is found ulcerated. I have, however, seen extensive ulceration of the ileum after death where there had been no diarrhœa during life. To give tonics and cod-liver oil in such a state of the digestive system seems a great mistake. Support your patient well with milk, egg, broth, jelly, and bread-and-milk, and give very little drugs of any kind. Perhaps bismuth and opium will relieve more than anything else, and the tongue often cleans or loses the scarlet redness under its use. The occurrence of aphthæ in advanced phthisis is always a serious warning symptom. The nurses will tell you it means death, and so it does sometimes; but aphthæ often clear up and disappear, and it is not till after the patient has had two or three attacks that the grave disorganisation of the mucous membrane occurs which immediately precedes the fatal issue.

You will probably expect that I should detain you for a few moments by a consideration of the proper *treatment of phthisis*, and especially by a statement of what is done for that disease in this hospital. Let me begin by stating results. The vast majority of our patients—perhaps 90 per cent.—are much benefited by their residence here. They gain in weight,

improve in general health, and are stronger in digestion. In a large number the expectoration lessens in quantity and becomes easier. The patient's nights are therefore more tranquil, for cough is relieved and fever is moderated: and cough and fever are the two enemies of sleep which we have to combat. How do we set about to put our patient into these more favourable conditions?

First of all, we give him rest; and in these days you are familiar with the physiological influence of rest in treating all diseases. When a patient is admitted here he leaves behind him generally a poor and crowded house, and the misery of witnessing often the daily struggle for subsistence in the very chamber where he sits or lies—an unwilling witness of the toil which he cannot share and in which he was perhaps once the foremost bread-winner. Here he can lie down by day or night without the distraction, it may be of restless children, or the surroundings possibly of some trade. For the time he is fully cared for and has all his wants supplied. Dull enough work, you will say, waiting in even the best of hospitals for two or three months with nothing but the routine of mealtimes and the physician's and chaplain's visits to enliven the long hours! Well, so it is. But here we do not exactly leave our case to such stagnation. We have books and papers, and some games, and kind visitors, who are content to talk and read; and it is surprising what a light a well-dressed cheerful lady visitor will bring with her into our wards. Then, as you know, we have evening amusements in winter—music, often of a high class; light dramatic entertainments; readings, grave and gay, but generally the latter. Having been one of the originators of these evenings, I have watched them with much care, and I may say that I have never known any mischief to arise from them. Let me say also to my younger hearers that in visiting a ward filled with cases of chronic disease the physician should be rather cheerful than sombre—with a grave feeling, it may be, in his heart, but a ready encouragement on his tongue and in his manner. He should see the bright side as well as the dark, and ever bear in mind the many cases of phthisis which have outlived unfavourable predictions. There was a time when all cases of cavity in the lung were condemned to speedy death. Let us remember the plump figures and rosy cheeks which we occasionally see even in the third stage of phthisis!

About temperature and ventilation I must say that, perhaps, we have too much of the first and too little of the latter in the hospital. Our winter temperature is about 64° day and night, and I think 60° would be better. Again, we are too much crowded here, and we greatly want a country house in a dry, rather elevated locality, to which we could send a certain class of our patients. I am not in favour of grouping consumptive people together, yet it is a necessity of our position that we should do as much good as we can with the means at our disposal. We have neither the means nor appliances for treating phthisical patients in separate sleeping-rooms, but I wish we had. I do not think that their aggregation in day-rooms, of course within certain limits, does any harm. It can do no good to anyone suffering from a like complaint himself to witness the deaths of others, and these cases ought to be in separate chambers. Some of these drawbacks, you will observe, are inseparable from all hospitals. I do not believe that a high temperature in or out of doors is good for all, or even for most cases of phthisis. In highly heated rooms, as was the old practice, many a patient has been done to death. The cases of phthisis which, after an experience of thirty years, I have seen last longest, have been those which were most freely exposed to fresh air—travellers in this or other countries. Abundance of pure air is surely the first desideratum for the treatment of this and of all chronic diseases involving respiration. Not cold air, of course; and in acute bronchial or congestive attacks there is a necessity for a raised temperature. But the ordinary phthisical patient will tell you that he does not cough much or most in the open air at any season of the year. Of course, I might diverge here into the question of climate, but this demands more time than we have now at disposal. I would just say that I have seen many patients who have benefited most by climates where the air is dry, clear, and what is called "bracing," and many more who did not do well in the hot, relaxing, and sheltered spots which have obtained so much repute in consumption. Study such cases as you go along in practice, and do not be too much carried away by names or great authorities on climate.

But we have as yet only got our patient into the ward, and described the preparations which await his arrival there. We must now feed him before we physic him. The diet here is good, simple, abundant, and nutritious. A great deal of good milk is consumed, and the sick man may here have as much of everything as he likes. We used to weigh out the meat, giving about eight ounces to each, but we have long since given up that plan; and while everyone has enough, we consume less on the whole than on the old plan. My own practice is to give a moderate allowance of whatever stimulant the patient has been accustomed to, and which he can digest, be it beer, wine, or even spirits, in small quantities; and if he be a smoker, I let him smoke in moderation.

And now what drugs shall we give him? I ask at once, why give him any? And unless the latter question be answered satisfactorily he should have none. Never prescribe without a reason and a motive which will bear your own careful examination. First, then, we have no specific for consumption. When you bear in mind what a multiform disease it is, you will not wonder at this. For many co-existent morbid conditions, affecting a great number of structures of differing anatomical arrangement and varying function, how could we have a single remedy or one specific which should reach the morbid cause? What, then, are the indications for the rational treatment of this disease? There are several, and they ought to be drawn from a study of the disease and its dangers. What is the greatest danger to which a consumptive person is liable in the progress of his case? Excluding copious hæmoptysis and pneumothorax, which are accidents, I would answer—undoubtedly inflammatory congestions of the lung tissue.

First, we meet all *lung congestions* with active treatment. When you notice raised temperature and pulse with more or less of dyspnœa, you will generally find a patch of dulness in some part of the lung, with possibly crepitation or tubular breath-sounds. A hæmoptysis may accompany this, and, if so, you must not set to work with styptics to stop the hæmoptysis, but treat the lung congestion and let the hæmoptysis alone.

Medicines of the *nutritive* and *tonic* class are much employed here. Chief among the first, of course, is *cod-liver oil*, and I have nothing to add to its praise or to detract from its merits. When it agrees it certainly rapidly increases weight, both by improving the digestive process and by adding a pabulum to the blood. It certainly increases fat, and this is probably due in part to its furnishing elementary fat globules. The form in which fat is deposited is supplied. From whatever cause, it undoubtedly promotes favourable changes in the lung. It is very observable that the cases in which the moist sounds are becoming dry, and the side undergoing slight retraction, are generally those with which a full dose of oil agrees. But pray observe about cod oil fattening that your patient may be improving in weight, while all the time the physical signs of disease in the lungs are extending. Overdoses of oil are to be avoided, as they only embarrass the digestion. Half an ounce twice a day seems to me the maximum. Some years ago I induced an amateur farming friend of mine to use cod oil in feeding bullocks, pigs, and sheep, and we carried out our experiments in separate stalls with every precaution as to other food. The result was that we readily fattened all the animals (and even cheaply at the then price of oil), but we found that an overdose frustrated all the good. A butcher, to whom we sold some pigs so fattened, and who was entirely ignorant of our experiments, as he lived a long way from the farm in a distant town, remarked that the fat of the pork was yellow and "fishy" in smell and taste, and it was this lot to which we had given excessive quantities of oil. We found half an ounce a full dose for an ox, and less than that for a pig. Neither treacle nor oilcake fattened these animals as readily as oil. In using *tonics* I believe it will not answer to prescribe indifferently quinine or iron or bitters of varied names. As *appetising tonics* strychnia and gentian, or quinine and cascarilla or cusparia, are good when the tongue is clean and pale. But many nervous, pale people who are sensitive to drugs cannot take quinine. In such cases a bitter with an acid, as nitric acid and calumba, agree best. You will find our physicians divided between the combination of an acid or an alkali with a bitter; and, as many hogsheads of gentian and soda are consumed here in the year by both in- and out-patients, you may fairly ask to what class of cases they are most applicable? I believe it will be found that a form of irritable dyspepsia is most benefited by it; our formula contains also hydrocyanic acid, and it is very popular here. You will select your tonic, then, to suit your case. In the

gastric irritation so common in phthisis, where the tongue is red and the papillæ prominent, with nausea and a tendency to diarrhœa, I have used *bismuth* with the greatest advantage. It seems to allay the irritation of the mucous membrane, which is so formidable a complication of chronic phthisis, and one of the greatest miseries of the patient. When combined with opium in diarrhœa cases it is almost specific, and you will find it more useful than chalk and catechu.

*Quinine* is highly valuable in phthisis. It supports strength and promotes appetite, and the larger number of cases improve under its use. I have not found it check the hectic of phthisis. In very large doses—ten to twenty grains—it will reduce the temperature, but the pyrexial condition returns when it is discontinued, and I do not think the patient has gained much by the experiment; neither has the daily shiver been checked by quinine. For this symptom I have prescribed *arsenic* with great advantage, and in a large number of cases it stopped the febrile access where quinine had failed. Arsenic appears rather to influence the morning access of fever, which occurs about 11 a.m., and it acts by cutting short the cold stage of the remittent attack. I have not found it so useful in arresting the afternoon access.

The sweatings of phthisis do not appear to be under the influence of either arsenic or quinine, but they are generally checked by gallic acid or oxide of zinc, and the first is the best remedy. It will often fail unless given in twenty grain doses.

*Iron* is eminently useful in treating chronic phthisis. It undoubtedly corrects the anæmia, and improves the quality of the blood, giving the patient more colour and vigour, and it often improves the appetite. It is inapplicable in all feverish conditions, probably helping to more free oxidation and waste of tissues, and tending to keep up the pulse and temperature. I never prescribe iron while the patient has hectic. In selecting a preparation of iron, if you try many experiments, as I have done, you will probably find the tincture of perchloride the best form. It would appear to enter the system more readily than any of the other preparations. Its solubility and bland effects on the mucous surfaces commend it to our use. Iron does not appear to be useful in proportion to the quantity of the base contained in the solution; and, just as we observe that chalybeate waters, which contain only infinitesimal quantities of iron, often act most favourably on the blood, so of this preparation. The citrate seems comparatively inert, but the sulphate is highly useful in certain cases.

I cannot conclude this notice of drugs without speaking of opium. Who could treat phthisis without opium? By it and by morphia we allay cough and diarrhœa, and soothe the irritable mucous membrane of the bowels. It is best not to check or overpower the secretion-cough of phthisis. The patient must expectorate, and you will add to his distress by checking this necessary act. But there is an irritable frequent cough, occurring not so much in the morning as throughout the day, and often at mealtimes, causing retching, which ought to be and is effectually relieved by small doses of morphia. A combination of morphia and hydrocyanic acid is very popular here, given simply with mucilage and syrup. It seems a mistake to combine expectorants with opium, and cough mixtures often contain most opposite ingredients. Here, as in all prescribing, great simplicity and some single aim in view should be your rule. Has your patient a difficulty in expectorating, raising an adhesive frothy sputum, with long fits of coughing? Here alkalies and expectorants will help him; but avoid much opium in such cases. Morphia in combination with chlorate of potash is most useful in the exhausting cough of laryngeal ulceration. Here, also, small blisters to the larynx are the best cough medicine. I must also call your attention to the use of opium in a solid form in the last stages of many miserable forms of phthisis, as pneumothorax, where the result is not immediate. Half-grain doses of opium, with camphor, given every three or four hours, will commonly relieve the malaise of the patient, and support his nerve-power without disturbing either his digestion or his sensorium.

And now, gentlemen, when I ask myself and you to what purpose is this minute discussion of the clinical phenomena in a chronic affection, I am not without hope that you will share my feeling when I reply that, not only is all true knowledge a gain, but that by our careful study, and that of many other observers in this and foreign countries, we have attained a degree of precision in diagnosis and in prognosis which is a very precious addition to the humane belongings of our art.

There was a time when all cases of phthisis were regarded as uniformly fatal; whereas we now know that this is not true in every instance; and we are enabled to point out with much certainty the cases of the disease where more favourable results may be expected. It is much to know that some cases of inflammatory origin may be rapid in their early stage, and almost exhaust vital powers, yet after a time may yield to nutritive changes of the system, and the patient be restored. It is also valuable to have separated off the acute tuberculosis and acute phthisis from forms of ulcerative lung disease, which tend by the development of the fibrous element at least to great chronicity, if not to a cessation of all morbid action. Our researches also have established for phthisis as a whole a much longer term than the pathologist of fifty years ago dared to assign it. Between the nine months of Louis and the nine years of Williams, what a vast difference!

Is it merely that we have discovered a greater longevity for phthisis than had been suspected? or have we indeed contributed by our modern treatment to a happier result? I believe we may consider that modern science has conduced to prolongation of life in consumption, and that by the double method of interfering with old and hurtful treatment—such as depletion and removal to hot, low, and damp climates,—and by directing our efforts to improve the nutrition of the body, to fortify the blood by cod oil and iron, and by selecting the bracing air of elevated localities for such of our patients as can obtain removal.

I am proud to think, also, that this hospital has indeed contributed much to the knowledge which we possess of phthisis. By its two valuable reports, by the works of Cotton, Walshe, Williams, Thompson, Edward Smith, and Powell, we have helped largely to forward the science of medicine as applied to this class of affection. We have certainly proved ourselves to be more than mere specialists, and, by the very variety of our published views, have offered to criticism the assurance that we are fettered by no blind adhesion to the limited views of any school of pathology.

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The Medical Profession at Lyons.—According to the enumeration just made by the Préfet du Rhône, there are in Lyons 163 doctors of medicine, 17 officiers de santé, 127 pharmaciens, 79 herboristes, and 89 sages-femmes.

In further examining the condition of our patient, we first feel both radial pulses simultaneously, noting whether the arteries are firmer or more tortuous than usual (atheroma). If there be a marked difference between the two radial arteries, we feel both brachials simultaneously; if these be equal, the difference between the two radials is due to irregular distribution. If the brachials differ, in all probability there is some abnormal physical cause to account for it—possibly an aneurism, the mode of detecting which we shall afterwards describe. Should the radial pulses be equal and regular, but small and feeble, we elevate the wrist to a level with the head, if the patient be standing or sitting; if lying, we elevate the arm to its full length perpendicularly to the body. Should the pulse then become extinguished, or nearly so, the patient is anæmic, and possibly anæmia is his sole disease; but we must never, under any circumstances, rely upon one symptom, however apparently trustworthy, but merely note it as an aid and a guide in our further investigation. Should the pulse, after elevation of the arm, remain still small and feeble, but distinct, the cardiac disease, if present, is mitral. Irregularity of the pulse confirms this suspicion; extreme irregularity points to the probability of the affection of the mitral valve being constriction rather than dilatation. Should the small, feeble, and possibly irregular pulse remain not only distinct after the elevation of the arm, but become more so, the systolic impulse being followed by such a sudden and complete collapse as to render the impulse apparently more marked, then we have to do with a double lesion, a mitral and also an aortic regurgitation. This form of pulse is, however, not always well marked, in many cases is not easy of detection, and is therefore not to be relied upon unless the collapse is distinct. In simple aortic regurgitation, however, the peculiar sensation conveyed to the finger, and well known by the terms hammer or Corrigan's pulse, is usually well marked, and frequently so greatly increased by elevation of the arm as to become almost painful, and wholly unmistakable.—"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874).

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# Medical Times and Gazette.

SATURDAY, JULY 25, 1874.


## GENERAL MEDICAL COUNCIL.

We had neither time nor space last week for more than a very short comment on the debate on the Reports of the Visitations of the Medical Examinations in the Queen's University in Ireland, but our readers will have read the rather full report we gave of the debate itself, and we think they will have sympathised with Sir Dominic Corrigan in his gallant, though rather warm defence of the body he represents; and we confess he would have our sympathy very fully but for his attack on Dr. Parkes. We gave so full a report of the debate because the members of Council who moved the resolution pointing to the defects in the examinations, naturally limited their observations almost entirely to those defects; and as the Visitors' Reports were "taken as read," and it was impossible, on account of their length, for us to give even an abstract of them, it was only fair to give, as fully as we could, the great deal there was to be said in praise of the examinations. The debate was a very warm one, but both Dr. Bennett and Dr. Humphry, two of the visitors, spoke very strongly in praise of the general excellence of the examinations, and the latter said that his impression was that they were among the very best in the United Kingdom. To make anything like an attack on them in Sir Dominic Corrigan's presence was then indeed to beard the lion in his den, the Douglas in his halls"; and it is not to be wondered at if the lion lashed his tail somewhat. We are not prepared to think—as most probably Sir Dominic Corrigan thinks—that the Examinations in the Queen's University in Ireland are the best of all possible examinations in the best of all possible universities; but we certainly agree with the vote of the very large majority of the Council, which was to the effect that they "do not deserve anything approaching to a vote of censure."

We mentioned last week that the consideration of the Reports of the Visitors of Examinations in Committee of the whole Council had been brought to a conclusion, and that the Council had entered on the discussion of several very important resolutions, founded on recommendations contained in those reports, or having reference to imperfections noticed in one or more of the examinations visited. The first of these resolutions was a "recommendation" of Council that each of the certificates, presented before admission to the examinations of the licensing bodies, "should include a statement from the teacher, or teachers, that the candidate had satisfactorily attended examinations, from time to time, held on the subject of study to which the certificate relates." This was agreed to, and we may venture to express a hope that the authorities of the several schools of medicine will be able to find some method of carrying the recommendation into practice; we feel sure that they will willingly do so if they can, for the deplorable state of unpreparedness in which some candidates present themselves for examination is anything but creditable to the schools from which they come. In the "notice of motion" on this subject, given by Dr. Humphry, the words used were—"had shown a fair amount of knowledge at examinations," instead of "had satisfactorily attended examinations," and we must confess that the original phrase seems to us more satisfactory than that in the resolution finally carried. The discussion on the subject is a very instructive one, and we commend it to the perusal of our readers.

The second resolution, which also was carried, was to the effect that "it is desirable" that in the examinations on some of the subjects of the curriculum—"such, for example, as botany, zoology, chemistry, and materia medica—the area of examination should be limited and defined." This arose out of the feeling, shown during the consideration of the visitors' reports, that not seldom the questions on these subjects were vague, or too large, or "over the heads of the candidates." Dr. Acland, in supporting the motion, observed that "what the Council had to secure was that men were well qualified for their ordinary professional duties," and that if the range of subjects was not, to some extent, defined so that an examiner might know what a student had been taught, "there was a very great chance that the student would be unfairly and unjustly examined." And Dr. Parkes remarked that "if the London University was obliged to limit the subjects of examination, even for the highest honours, it was much more necessary when they were dealing with the ordinary medical student. For example, a young man could not do more than learn the mere rudiments of chemistry in nine or ten months; yet in some of the examinations only two or three questions of the highest order were put." Sir William Gull was rather unnecessarily grand and denunciatory, seeing that the motion was for the limitation and definition of the area of *examination*. "If they were going to limit the area of knowledge," he exclaimed, "he hoped an earthquake would come and swallow up the Council. The great light of the profession (Hunter) did all he could to enlarge the area of study. If they were going to level the Council down to the stupid men, a parcel of twenty-four old women could do the work as well. The object of Dr. Wood's motion was to give common sense to the examiners and teachers; but it could not be done." Dr. Humphry replied that "the real point of teaching was to instruct a man well in the area in which he was taught, and it was impossible to instruct well over a very wide area. It was of no use saying that the thing was impossible, because it was actually done at Cambridge among other places. They were obliged to have the area defined in order that the teaching and the learning might be good." And the President "entirely disagreed from Sir William Gull. The subject connected with the study of medicine involved such an enormous number of facts, and imposed so severe a tax upon the memory, that he had long since come to the conclusion that if a diligent student were to make himself master of them, he would be a worse instead of a better man for the

work of the physician. It was far more important to have precise knowledge over a limited than superficial knowledge over a large extent."

The third resolution had reference to the *conduct* of examinations. It was moved by Dr. Humphry, and seconded by Sir William Gull—"That it is important that two examiners, or an examiner and assessor, should be present at every clinical as well as oral examination"; and this too was agreed to, though Sir Dominic Corrigan, in noticing a similar recommendation by the visitors to the examinations of the Queen's University in Ireland—"because, among other reasons, in the investigation of patients there is not unfrequently room for some difference of opinion,"—had added the comment, "so that they suggest that there should be a row at the patient's bedside." We may be pardoned, we hope, if we express the trust that, in England at any rate, the examiners, or the examiner and assessor, should they differ in opinion about a case, will be able to restrain their eagerness for a "row" till they shall have left the patient's bedside.

By a fourth resolution it was agreed that in "no case" ought a candidate to be examined, wholly or in great part, in any subject, "by the lecturer or teacher in that subject in the school in which the candidate has been educated." Dr. Humphry, who moved this resolution, observed that the subject affected especially the universities of the United Kingdom. "Within a comparatively recent period all the universities were teaching bodies and examining bodies; and not only so, but the teaching and examining in each subject were conducted by the same person in each university." In Cambridge it was found that this system did not work well, and a few years ago it was altered, and other examiners were associated with the professors. He pointed out some of the objections to the system, one being that it is "likely to have the effect of limiting the area of teaching, seeing that the professor, as being the regulator of the examination, was the only check upon his own teaching." And another, that "each teacher indicates more or less to his students what would be the subjects and the manner of his examination. He could not possibly avoid doing so, and, unconscious as he might be of the fact, there could be no doubt that the students were apt to learn from his teaching what would be the prominent points of his examination." Dr. Thomson and Professor Turner pointed out that in Scotland the difficulty was how to find funds to meet the expense of non-professorial examiners, but that attempts were being made to effect the desired changes; and Dr. Sharpey very shrewdly suggested, "as a way of getting over the financial difficulty mentioned, that the universities, whilst continuing to confer degrees, each upon its own *alumni*, should combine together for the purpose of having examinations in common." A fifth resolution—"That it is desirable that observation with the microscope should form part of the examinations of candidates for a licence"—did not excite discussion even in the General Medical Council, and was agreed to.

Dr. Storrar then moved, and Dr. Stokes seconded—"That in the opinion of the Council all examinations should, as far as possible, be objective, and conducted by persons who are experts in the subjects of the examination assigned to them; and that in all examinations, excepting those for degrees and fellowships, the questions put should be chiefly such as have a bearing on practice." The chief part of Dr. Storrar's speech in moving the resolution was in defence of the employment of "experts" as examiners. He argued that teachers of subjects made the best examiners in them, and that the ablest teachers made the most skilful examiners. "The most eminent men, who were the most distinguished for their knowledge of any subject, were the most judicious and efficient examiners. Cranky questions were almost invariably the refuge of bad examiners. . . . . One of the greatest miseries which teachers and candidates had to contend with arose from having to do with examiners who literally had to grind up for their own examinations, which had been notoriously—and he suspected was still to a certain extent—a fact." As a broad rule, most people will, we imagine, agree with him; but the expression "experts" was objected to, and for that, among other reasons, the motion was negatived.

It was resolved—"That the visitations of examinations be continued," and, in seconding the resolution, Mr. Macnamara begged that the College of Surgeons in Ireland might be visited again within the ensuing year, "because that body was by no means satisfied that justice had been accorded to its examinations."

A considerable part of the day—the seventh day of the session—was taken up by the consideration of the "Report of the Committee on the Adulteration of Food Act," which will be found in our report of the proceedings of the Council. On Friday, the eighth day, the President informed the Council that the deputation appointed on the previous day had obtained an interview with the President of the Local Government Board, had placed in his hands a copy of the resolutions of the Council with reference to the examinations and qualifications of public analysts and officers of health, and had expressed to him the desire of the Council to co-operate with the Government "for the development of the best means of education and examination in the various departments of knowledge which bear on the public health." We have no information as to what the President of the Local Government Board said to the deputation from the Council.

Dr. Parkes then asked the President if he could inform the Council "whether the schemes for conjoint examinations in England and Ireland, which have been sanctioned by the Council, are being carried into effect?" With regard to England, the President replied by pointing out that in March, 1872, the Council had passed the following resolution:—"That the Council approve of and sanction the conjoint scheme of examination submitted by the Royal College of Physicians of London, and the Royal College of Surgeons of England, to which the Universities of Oxford, Cambridge, and Durham have given their adhesion. The Council has, at the same time, to express its desire that means may be found by which the University of London and the Apothecaries' Society may be enabled to join in the scheme, so as to render it a complete scheme for a Conjoint Board for England." The scheme was so drawn as to admit the other bodies into it by simple adhesion on their part. The Committee of Reference had arranged for carrying into effect all the details of the scheme. The University of London had last year obtained an enabling Act, and had joined the scheme; and during the present session of Parliament the Apothecaries' Society had also obtained an enabling Act, which had just received the Royal assent, so they could now join in the scheme. The only difficulty remaining was a legal difficulty which related to the appointment of examiners by the College of Surgeons, arising from the nature of their charter; but it was not an insuperable difficulty, and he hoped it would be overcome. Later in the day, Mr. Bradford, the representative of the Society of Apothecaries, related the history of the attempts of the Society to obtain an enabling Bill, and the history of the Act which they have this year succeeded in obtaining, from which it appears that some of the peculiarities of that Act, to which we alluded a short time ago, were caused by an amendment to the Act at first introduced by Mr. Stansfeld, who chose to appear as the champion of the would-be medical women. A letter from the Master of the Society to the President of the Medical Council states that the Society is ready to give, if they become part of the Conjoint Board, "a pledge that having joined they will not (except under compulsion of a *mandamus*) admit anyone to a separate

examination." It appears, therefore, that so far as England is concerned, the complete Conjoint Board scheme is ready for being carried out if the College of Surgeons difficulty can be got over.

With regard to Ireland, a scheme had been prepared, and had been in great part approved by the Council, and the details of a plan for carrying the scheme into effect had been prepared. The Queen's University in Ireland had not joined it, nor the Apothecaries' Hall of Ireland. But the latter body had lately expressed their wish to join; and on Saturday, the last day of the session, the Council passed a resolution "consenting to the proposal that the Apothecaries' Hall of Ireland be allowed to appoint three examiners instead of one in practical pharmacy, under the scheme for the formation of a conjoint examination in Ireland, bearing date June 28, 1872." On the same day Mr. Macnamara, the representative of the Royal College of Surgeons in Ireland, also gave at considerable length an account of the present position of that body with respect to the conjoint scheme, and the reasons why there had been some delay in its fully and completely joining in it; the outcome of which was that the Council expressed themselves as being "glad to find that there is a fair prospect that the Royal College of Surgeons in Ireland will eventually give its influential co-operation in carrying out the Irish scheme of conjoint examination which has been sanctioned by the Medical Council."

In England, then, all the bodies have joined, or are ready and willing to join, in carrying out a conjoint examination scheme; but the Royal College of Surgeons—a *somewhat* important body—is still hampered by "a legal difficulty." In Ireland the Queen's University stands aloof, and is conspicuous by utter silence on the subject. And as for Scotland, anything may be hoped or feared; for not a word about a conjoint scheme has come from that division of the kingdom during this session of the Council.

There is not much more to notice here, or at any rate that we can now notice, in the proceedings of the Council during this session of 1874. The Pharmacopœia Committee presented a satisfactory report, which was adopted with the exception of part of one clause. The report recommended the reappointment of the Committee, and that its duties be to superintend all matters relating to the Pharmacopœia, more especially to consider the publication hereafter of a new edition of the work, and of the steps which should be taken for its preparation," but the Council struck out "the words from 'more especially' to the end of the paragraph." And by a special resolution the attention of the Committee was requested to "the desirability of correcting, in any future edition of the Pharmacopœia, the approximate solubility of salts and other substances under the head of 'Characters and Tests,' instead of the indefinite information afforded in the present Pharmacopœia."

On the recommendation of the Executive Committee, "the Oxford and Cambridge Schools' Examination Board" was added to the list of examining bodies whose "examinations fulfil the conditions of the Medical Council, as regards preliminary education," but only "provided the subjects examined on shall be such as are required by the General Medical Council." And, on the motion of Drs. Humphry and Storrar, it was agreed that the junior local examinations conducted by the English Universities should also be recognised for the preliminary education of medical students, "provided that Latin and mathematics, and also one of the following optional subjects—viz., Greek, French, German, natural philosophy, including mechanics, hydrostatics, and pneumatics—are among the subjects included in the pass certificate."

The report of the Finance Committee was received, from which it appears that the cost of the visitations of examinations reported on during the session amounted to £900.

The President then tendered his resignation of office, and, though Sir William Gull presented to him a paper signed by all the members of the Council, expressing the wish that he would retain his office for the full term, Dr. Paget still felt obliged to retire, and took leave of the Council. Dr. Andrew Wood then, in a few warm and eloquent words, proposed the following resolution, which was carried by acclamation:—"That this Council cannot part with their late President, Dr. Paget, without expressing to him their great obligations for his services as their President—services which have been so ungrudgingly devoted, at large sacrifices to himself, for the good of the Council and the profession, for the uniform courteousness of his demeanour, for the impartiality of his decisions, for the discretion of his conduct in the chair, which had secured for him the esteem and affection of the members of the Council, and have conduced greatly to the efficiency of the action of the Council in raising the status of the medical profession." These are terms of very high praise; but we venture to add that Dr. Paget has very fully and completely deserved and earned every word of them. The Council then proceeded to the election of a new President, and their choice fell on Dr. Acland, the eminent representative of the University of Oxford. Dr. Acland has been a very active member of the Council ever since its formation, and is, therefore, well acquainted with its duties and its difficulties. It would be impertinent in us to say aught of his distinguished qualifications for the high office to which he has been elected. The fact of his election by his colleagues and fellow-workers is the best possible testimony of his fitness for the honour bestowed on him.

The rest of the business was merely formal.

The Council's house is still unfinished, and of its qualities and capacities it would as yet be unfair to speak. It would, however, be ungracious to omit a due recognition of the services of the permanent officials in connexion with the removal from the old to the new premises. Those gentlemen are always distinguished for courteous behaviour, and it would be, we feel sure, an encouragement to them if the Council took the present opportunity of recognising this spirit in a substantial fashion.

## MODERN MIDWIFERY.—No. II.(a)

In a former article we endeavoured to vindicate the dignity of midwifery, to show how closely it is connected with the higher branches of medical science, and how well it deserves to be made a life study and practice for men. And this not because women are subject to difficulties from which other animals are exempt; for the human female pelvis, with its short symphysis, shallow cavity, and broad sub-pubic arch, seems, so far as the bones are concerned, to provide specially for easy childbirth. We would say with St. Paul, "Doth God care for oxen?" Undoubtedly, but much more doth He care for women; and God forbid that we should leave the smallest matter uncared for that concerns their comfort or safety in the hour of peril. Let us, then, see what our three authors say of natural labour; for he that brings a hundred women quickly and safely through this, saves a greater quantity of suffering than he who deals with the few exceptional and morbid cases.

The young practitioner who is "bespoken" to attend a

(a) "The Complete Handbook of Obstetric Surgery; or, Short Rules of Practice in every Emergency, from the Simplest to the most Formidable Operations connected with the Science of Obstetricy." By Charles Clay, M.D., late Senior Surgeon and Professor of Midwifery, St. Mary's Hospital, Manchester. Third Edition. London. 1874.

"A Manual of Midwifery, including the Pathology of Pregnancy and the Puerperal State." By Dr. Karl Schroeder, Professor of Midwifery, and Director of the Lying-in Institution in the University of Erlangen. Translated into English from the Third German Edition by Charles H. Carter, B.A., M.D., B.S. Lond., M.R.C.P., Physician-Accoucheur to St. George's, Hanover-square, Dispensary. With twenty-six engravings on wood. London. 1873. 8vo. Pp. 388.

"A System of Midwifery, including the Diseases of Pregnancy and the Puerperal State." By William Leishman, M.D., Regius Professor of Midwifery in the University of Glasgow, etc. Glasgow. 1873. 8vo. Pp. 835.

patient must always be prepared for the question, "How do you know that the patient is pregnant?" This is generally assumed on the faith of the patient's statement; but the practitioner must be aware that many oldish women deceive themselves, and that, unfortunately, a good many young women have very strong grounds for deceiving him. Hence the necessity for a thorough knowledge of the signs of pregnancy. No student will be complained of on this point if he masters the very full and complete description either of Schroeder or of Leishman; yet so large is the subject, that each book contains much worth reading which the other does not; and in comparing both with Rigby's System, published thirty-three years ago, it is curious to see how much good stuff there is in that which is omitted in the more recent works. Leishman is particularly full and clear, and, by the aid of his profuse illustrations, shows the differences between the womb of a multipara and a primipara at each month of pregnancy.

Now, since the problem is to determine—first, Is the uterus enlarged? secondly, If so, does it contain a fœtus?—we are glad to see that Leishman notices one diagnostic mark of the uterus which was mentioned in the *Medical Times and Gazette* some years since, but has not received much notice since. It is thus in Leishman's words. The womb, he says, yields a certain feeling of elasticity, which is different from that which is communicated by any other form of abdominal tumour. "Besides this, the practice of palpation seems in some cases actually to cause a certain amount of feeble painless contraction in the womb, which is of the highest diagnostic value; but it must be remembered that these symptoms prove only that it is the uterus which we are touching, and are no evidence of pregnancy. If, however, we are convinced that the elastic tumour contains a solid movable body, there is scarcely any room for doubt." Here we venture to say that Leishman would have been more exact had he said—If a tumour presenting the peculiar contractility of the womb contains a movable substance, that substance is a fœtus. For an ovarian tumour may exhibit *ballottement*, and other signs of a movable body within, but its walls cannot be got to contract.

Then, again, why separate the uterus from the other hollow viscera? or suppose that it does not do as they do. The bowels have their recurrent peristaltic contractions every three, five, or six minutes, which in health slightly propel and regulate the position of their contents—periodic contractions which are acutely enough felt in colic, and which may be seen through the abdominal walls in cases of prolonged obstruction. These are purely peristaltic, and not expulsive. By day and night during pregnancy the womb executes a series of gentle vermicular movements, sometimes confounded with the movements of the fœtus, and felt very painfully at times in the shape of cramps, provoked by rheumatism or by sexual irritation. The womb performs its full functions not half a dozen times in a lifetime, the bladder half a dozen times a day, and the bowels once a day; but all three are intestines alike—the womb, a short double intestine, ending in a common cavity. It is as wrong to divide parturient women from the whole animal creation—as a being apart—as it is to regard the womb as an exceptional organ. Whoever will go into St. James's-park, take a bucket of water from the pond, and carefully watch under the microscope the intestinal movements of the cyclops, or of the larva of the gnat, will soon see the model of uterine action.

Having settled the question, "Are you sure you are pregnant?" (on which, and on the diagnosis of plural and extra-uterine pregnancy, Schroeder and Leishman are both full), the next is, "When do you expect?" the answer to which involves the doctrine of the duration of pregnancy, the mode of calculating the time of its completion, and the causes of labour. These points Schroeder dismisses in a dozen lines. He states the average duration as 271 days, and the cause of parturition to be the fatty degeneration of the decidua, whereby it becomes a foreign body, and excites reflex actions for expulsion. Leishman treats it at far greater length, and so does Clay, but without saying much that is not to be found in Rigby, or that differs from the summary conclusion of Schroeder. All organic processes, the length of life, and of each stage of life, of childhood, and maturity, all the natural bodily actions, have a time laid down for them; and the recurrence of menstruation shows the human female to be governed by the general laws of the cosmos. The condition of a fully-developed fœtus at birth shows that it could not long continue in its present state without disease, for liver, intestines, and all the glands of the skin are choked with secretion. The decidua is degenerate. The cervix uteri begins to be distended, with the same effect that distension has on any other sphincter. The recurrence of a lunar period, the maturity of the fœtus, and the complete distension and irritation of the womb are, we suppose, three adequate causes; and if there be any variation in the length of pregnancy, it fairly arises from the fact that some of these causes may control others, and that the date of the beginning of pregnancy is seldom given, or, if given, to be relied upon. The ovum may be ripe, or the womb irritated at a time that does not coincide with the menstrual nisus. Moreover, the exact time when parturition begins is often as difficult to fix as the time when pregnancy begins. Certainly impregnation may occur at any time, before, during, after, and between the monthly periods, and hence the time of mature parturition may vary from the 270th to the 293rd day after it. Clay lays great stress on the doctrine that the duration of pregnancy is ruled by the age, or joint age of the parents—that the young wife of a young husband will have a short pregnancy, the young wife of an old husband a longer one, and the oldish wife of an oldish man a longer one still. This seems to be the rule in animals, and we need not doubt that it is amongst the causes which regulate the length of human pregnancy.

## FREEDOM IN MEDICAL EDUCATION.

Dr. Arlidge, Physician to the North Staffordshire Infirmary, has addressed a letter to the General Medical Council, entitled "A Plea for Liberty of Medical Teaching," which for various reasons is well worthy of attention. It contains much with which we heartily agree, and some things from which we as strongly dissent. His main argument is this—"There are scattered all over England many hospitals—county and otherwise—officered by skilful gentlemen; the hospitals afford a vast amount of teaching material, and these gentlemen are both able and willing to teach, but the opportunity is refused them, because the regulations now in force demand that the student's time shall be passed during a certain number of years in a properly constituted medical school, and few fully organised schools pay in the country. Why should not these gentlemen be allowed to do what they can in the way of teaching which will be recognised by the licensing bodies?" Dr. Arlidge would like to see these hospitals converted into secondary schools, the large schools now existing to be primary, and in both of these that the student should pass a certain number of years. We are quite of the same opinion as Dr. Arlidge, that it is a pity that so much good material for instruction should be wasted, and, if possible, a still greater pity that the teaching powers of many clever men should not be utilised. But after all the question comes to be this: the time at our disposal for training men to the practice of medicine is very limited; were it not so, the expense of a medical education—even now greater than the subsequent remuneration will in many cases warrant—would be

enormously increased. Where, therefore, is it best for the student to spend his time? There are certain subjects which a student should know before he joins a medical school —physics, botany, and some idea of chemistry are among these. So far we agree with Dr. Arlidge; but when we come to such subjects as anatomy, it is better that the student should be taught in a properly regulated school than to leave him to such chance opportunities as country hospitals afford. Under existing regulations it is possible for a young man to secure a certificate for dressing, etc., in these and such-like hospitals, which would otherwise only be obtainable by undergoing a sharp course of discipline in a regular school; and as a consequence, in some of the smaller schools in London, it is hardly possible to get a due supply of clinical clerks and dressers. We should be the last to undervalue the advantages of the kind of learning to be acquired in country hospitals; we ourselves well remember the valuable stores of knowledge we there acquired; but no one will, we think, contend that this mode of acquiring knowledge is preferable to that implied by the strict discipline of a well-regulated hospital.

Dr. Arlidge goes very far on what we hold to be a most dangerous path. He hints that it would not be displeasing to him to see the whole field of medical education made free; that attendance on all lectures should be made voluntary; and that the student should be left to gain his knowledge where and how he pleases. We who have been engaged in teaching, we may say, during the whole of our professional life, look upon such a scheme with profound distrust. Were it possible to make examinations absolutely perfect—actually to put a man in all kinds of emergencies to see how he would extricate himself,—something might be said for the system. But, in truth, the examination system has been worked to death, even as regards the highest and most severe kind of test of this kind now applied—we mean the Indian Civil Service. Even there it has admittedly failed, as it is bound to fail if tried alone. We must supplement the system of examination somehow. Undoubtedly the best mode of supplementing it is by insuring that the training which precedes the examination shall be as perfect as possible; and the suggestion of Dr. Arlidge would hardly, we think, conduce to this end. Since, however, the days of apprenticeship are now no more, it has been increasingly observed that men are less prepared to assume the practical duties of their everyday calling than before. In Germany, the difficulty is partly overcome by the system of policlinics; but here we have no such seasoning, if one may call it so, except a man become resident medical officer in some institution, and even then his attention is generally directed in one special way instead of all round him. Could by any means our provincial hospitals be converted into schools of probation, we think they would be utilised to far greater advantage than they are now, or would be under Dr. Arlidge's scheme.

## THE WEEK.

### TOPICS OF THE DAY.

Yesterday week the Crown Prince of Germany, accompanied by Count Münster and Captain Liebenau, visited the German Hospital, Dalston. The distinguished visitors were conducted over the building by Drs. Lichtenberg, Port, and Hessel. His Imperial Highness spoke very kindly to all the patients, and, on leaving, expressed himself as being highly satisfied with the excellent manner in which the Hospital was conducted.

Mr. John Simon, F.R.S., as Medical Officer of the Privy Council and of the Local Government Board, in his last annual report submits that for the past two years and a half, and particularly during the last year, the circumstances of official and administrative transition, consequent on the Acts of Parliament of 1871 and 1872, have been such that no consistent scheme of report in general relation to the sanitary interests which are under the Board's superintendence has been possible to him, and the present report, which regards the year 1873, must necessarily, even more than its two predecessors, illustrate the difficulty of the unsettled circumstances. The report also gives interesting and valuable information as to—(1) Inquiries by inspectors with regard to local administration of the sanitary laws; (2) list of unions inspected as to vaccination, and account of awards to public vaccinators; (3) statistics of the National Vaccine Establishment; (4) order as to detention and examination of ships suspected of cholera; (5) memorandum on precautions against cholera. Mr. Simon, speaking of bringing the Board's Medical Department into direct relation with the local officers of health, and giving the department opportunity to contribute any assistance in its power to the success of the local institution, concludes with the following observations. "He need hardly say that to any holder of his office it must always be among the highest of ambitions to be able to see the experience of this department really conducive to the information and influence of younger fellow-labourers in other parts of the same great field of public service; and it would be affectation in him to deny that, during many early years of the new organisation, relations in that sense between the central and local services may often be of important, and sometimes of indispensable, use to the latter. He would, however, also express his confident expectation that, though from the nature of the case the relation in these earlier years must chiefly consist in assistance which the central office can so render, succeeding years will more and more bring the central office under obligation to local contributors of knowledge and to local illustrations of progress. And year by year it will surely grow to be among the most useful, as it must also be among the happiest, duties of the annual reporter under the Public Health Act, 1858, to represent, for the information of all the officers of health of the kingdom, such additional fruits of scientific observation, and such new evidences of practical success, as will have come to the Board's knowledge from among their number."

Dr. Dudfield, in a letter on the 14th inst., addressed to the *Times*, on the subject of London slaughter-houses, states that the Bill now before Parliament has yet to pass the ordeal of the Lords, to whom it has gone without a single beneficial amendment. He entreats their Lordships to well consider the consequences of passing this measure, and he cannot think it too late even now to urge upon the Ministry itself the desirability of delay, seeing how deeply the Bill concerns the health and comfort of the inhabitants of the metropolis; and for the sake of consistency, moreover, more deliberate consideration may reasonably be asked from the Cabinet of the author of the apothegm, "*Sanitas sanitatum, omnia sanitas.*"

The magistrates in administering the law under the Adulteration of Food Act do not, we are glad to observe, flinch to enforce, in certain cases, some of the more severe penalties of the Act. In a case of selling adulterated milk brought before the magistrate of the Lambeth Police-court last week, a previous conviction for a similar offence was proved. The defendant, George Bailey, of New Church-road, Camberwell, was now ordered to pay a penalty of £6 and costs, and the magistrate further directed that the conviction, under the Act of Parliament, be advertised in the newspapers at the cost of the defendant.

The Zanesville Academy of Medicine passed the following resolution on the death of Dr. John G. F. Holston, which took place at Washington on May 1 last:—"That in the death of Dr. Holston the Zanesville Academy of Medicine loses one of its prominent members, and the profession at large an eminent physician and surgeon of extensive professional and literary culture, ripe experience, and accurate judgment; and society

a warm-hearted, genial, and generous member, whose life has been mainly devoted to the good of his fellow-beings."

An International Pharmaceutical Congress will be opened at St. Petersburg on August 13. One of the questions proposed for discussion will be the formation of an international and universal pharmacopœia.

We are informed that a death from chloroform occurred in the General Infirmary, Leeds, on the 16th inst. We hope to be able to publish the details of the case next week.

### THE PRESIDENCY OF THE GENERAL MEDICAL COUNCIL.

One of the last items of business, not purely formal, before the Council was the election of a President, Dr. Paget having persisted in his determination not to hold the office longer than during the present session; and the action of the Council herein will much surprise the outside world. It was believed that the Council generally felt that their President ought to reside in London, and that though Dr. Paget had, at no slight sacrifice, admirably discharged all the duties of the office, great inconvenience might arise in the transaction of business if the President resided out of town. It was rumoured that Mr. Cæsar Hawkins could be persuaded to take the President's chair, and it was thought that it would be highly fortunate could the deliberations of the Council be guided by a man of such high position in the profession, of such excellent judgment, and such courtesy, and one who, having formerly been a member of the Council, was practically acquainted with the responsibilities, duties, traditions, and rules of business of that august body. The outside world, then, imagined that, failing Dr. Paget, Mr. Cæsar Hawkins would be the next President. But the outside world was mistaken. The Council have again chosen a provincial member; and feeling, we may suppose, that as Cambridge had occupied the President's chair, the sister University of Oxford had in turn a claim to that honour, have elected Dr. Acland. There cannot be two opinions about Dr. Acland's eminence, his high sense of duty, and his readiness to meet, like Dr. Paget, at any cost to himself, all claims that the office he has accepted may make on him; but we may be allowed to feel some surprise that the Council have thought it fair to again ask for such sacrifices of time and labour from any provincial member of their body. We have heard a rumour that members of the Council were pressingly canvassed to support Dr. Acland's nomination; but rumour is nearly as great a liar as is "very good authority," and we confess that we are most unwilling to believe that anything that can fairly be called canvassing can have been resorted to in the appointment to an office of so much dignity and importance as that of President to the General Medical Council. And we feel sure that if any friend of Dr. Acland's can have been so led away by a conviction of his pre-eminent fitness for the office as to canvass for votes for him, Dr. Acland was himself utterly ignorant of any such proceedings. He will, we doubt not, fully justify the election of the Council, though we do venture to think that it would have been wiser to elect a London President.

### MEMORIAL BUST OF THE LATE DR. JOHN MURRAY, OF THE MIDDLESEX HOSPITAL, LONDON.

On Tuesday last the bust recently executed by Joseph Durham, Esq., A.R.A., of the late Dr. John Murray, was presented to the Weekly Board of the Middlesex Hospital. It is a fair likeness, the artist having caught the intelligent, genial expression by which so many of the friends of the deceased will best remember him. On the lower portion of the bust his name, with the dates of his birth (November 28, 1843) and death (October 15, 1873) are engraved. On the marble bracket destined to support the bust, the following appropriate inscription is placed:—"This bust testifies the high regard and warm affection of many professional and private friends for one whose life—alas! too brief—had put forth buds of ample promise, and had already borne much early fruit." A site has been chosen for its erection in the museum attached to the Hospital, the Board considering that, with a view to encourage emulation among the students and junior officers of the Hospital, it was desirable to place the memorial in some place more generally accessible to students than the board-room. The bust may be seen by any subscribers or friends by applying at the Hospital.

### POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

At a special Council-meeting of this Association held on Thursday, the 16th inst., the following propositions were submitted and unanimously agreed to:—

"That, in the judgment of this Council, it is desirable that district poor-law medical officers should be health officers of first instance in their respective poor-law districts, that all reports of insanitary conditions made by them in the performance of such duty should be forwarded to a superintendent health officer, acting as such over a considerable area, such as the whole or part of a county, with whom should rest the authority of putting the law in action.

"That the salaries of poor-law medical officers should be paid wholly from the Consolidated Fund, instead of partially, as at present.

"That the dispensary system of medical relief should be extended to provincial towns and rural districts, the expenditure on drugs, surgical and other appliances, with rent, etc., of dispensary buildings, being left to be defrayed from local sources.

"That the superannuation of poor-law medical officers should, under certain statutory restrictions, be in future compulsory, instead of permissive.

"That the imposition of additional duties, whether sanitary or otherwise, and notably the recent requirement to examine and certify as to the condition of children for the School Board, without any remuneration, be resisted, and that every effort be made to secure reasonable payment for such extra services."

It was also moved, and unanimously agreed to—

"That Dr. J. Rogers, chairman of the Council, should attend the forthcoming annual meeting of the British Medical Association at Norwich, for the purpose of submitting the foregoing resolutions to its consideration, with the view of securing its support."

### DUBLIN SANITARY ASSOCIATION AND THE PUBLIC HEALTH (IRELAND) BILL.

At the usual weekly meeting of the Executive Committee, held on Thursday, July 16, the Public Health (Ireland) Bill, as amended in Committee of the House of Commons, was considered. The amendments proposed or sanctioned by Sir M. Hicks Beach were generally approved of. Mr. Errington's suggestion to constitute urban sanitary authorities only in towns of 20,000 inhabitants or upwards was regarded as a good but impracticable measure; and a communication was forwarded to the Chief Secretary for Ireland, asking him, if possible, to adopt a modified schedule of seventeen towns proposed by the Sanitary Association in place of that in Clause 3 of the Bill. This important amendment would meet the views of the Chief Secretary, and also those of Mr. Errington to a large extent. Mr. Errington's amendment to Clause 5 was objected to, because it would prevent action being taken by the Local Government Board to include an urban in a rural district unless a majority of the ratepayers present at a meeting specially convened would petition for such action. The clause would work better were action to be taken on the petition of ratepayers representing *one-tenth* of the rateable property in the district. Clause 18 should be assimilated to Clause 5 as amended, for it provides that the Local Government Board should have power to unite districts for certain sanitary purposes, just as Clause 5 provides for the absorption of an urban into a rural district.

### SIR DOMINIC CORRIGAN'S MEDICAL ACT AMENDMENT BILL.

This ill-fated Bill, which so soon received its *coup-de-grâce* at the hands of the General Medical Council, only its proposer and seconder voting in its favour, had been originally submitted to the King and Queen's College of Physicians. At a very full meeting of the College the Bill was ultimately rejected by a substantial majority, chiefly on two grounds—first, because it completely ignored the existence of the conjoint examining scheme, to which the College had already given its assent, and on which a report had already been drawn up; and, secondly, because the proposal not only seemed to be impracticable, but was also tantamount to a vote of want of confidence in the present licensing bodies. We must congratulate the Irish College of Physicians on having withheld from such an unwieldy scheme their sanction and approval prior to its being laid before the General Medical Council.

### THE LATE DR. KENNION, OF HARROGATE.

On the death of the late Dr. Kennion, of Harrogate, a subscription list was opened for the purpose of erecting a monument to his memory in Christ Church, High Harrogate. The Committee have now brought their labours to a close, and an elegant tablet has been erected in the transept of Christ Church, with a suitable inscription. The subscriptions not being absorbed by this tablet, the subscribers determined to devote the residue to an object which, it was believed, the deceased, had he been living, would have highly approved. With the concurrence of the Committee of the Harrogate Cottage Hospital, a "Kennion Ward" has been formed, and the sum of £110 has been handed over to the Committee of the Cottage Hospital for furnishing the ward. This result of the labours of the Committee for the "Kennion Memorial," has not only been satisfactory to the subscribers but to the family of the late Dr. Kennion.

### KING'S COLLEGE.

Mr. Garrod, son of Dr. A. B. Garrod, has been appointed Professor of Comparative Anatomy at King's College, in succession to Professor Rymer Jones; and Dr. Baxter succeeds Dr. Garrod in the chair of Materia Medica; while Dr. Duffin has been made full Physician to the Hospital. We hear that two more members of the professional staff have been elected on the General Committee of the Hospital. Four out of a staff of twenty-six members is certainly not a very large number to be on the General Committee, but at any rate it is an increase, and a step in the right direction.

### SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The Quarterly Court of Directors of this Society was held in the rooms of the Royal Medical and Chirurgical Society, July 8. Sir George Burrows, President, in the chair. There were two widows added to the list of recipients of grants, thus raising the number to sixty. There was, however, a diminution in the number of children, of whom three receive assistance from the Copeland Fund. The sum divided among the applicants for the present half-year was £1279 10s. The expenses of the quarter were £107 2s., including an honorarium of thirty guineas to the secretary, in recognition of his zealous and valuable services. Six new members were elected, one under the new by-law, by which a member may be proposed and elected at the same Court.

### BRADFORD MEDICO-CHIRURGICAL SOCIETY.

The twelfth annual meeting of this Society was held on July 7, and closed the business of a successful year. The laws of the Society have undergone reconstruction, so as to admit of greater expansion. The annual meeting has been shifted to July, and the opening meeting of the Society to October. The office-bearers elected for the year 1874-75 are as follows:—*President:* Mr. P. E. Miall. *Treasurer:* Mr. J. Mossop. *Secretary:* Dr. Goyder. *Members of Committee:* Messrs. W. Whalley, John D. Lawrie, S. C. Hirst, and Dr. Bell. *Pathologists:* Drs. Lee and Rabagliati.

### DUST-BINS IN MARYLEBONE.

Dr. Whitmore, in his monthly report to the Vestry of St. Marylebone for the past month, refers in deservedly condemnatory terms to the dust-bins nuisance. He states that the annual nuisance from foul dust-bins has again broken out, with more than ordinary intensity; complaints of the abominable effluvia arising from them are continually made to him; and, strange to say, those most disgustingly offensive belong to large houses and mansions situated in our most aristocratic streets and thoroughfares. Upon the principle that masters are responsible for the acts of their servants, he is of opinion that many wealthy inhabitants of that parish, and of other parishes, deserve to be heavily fined for permitting nuisances to exist upon their premises, which are not only injurious to the health of their domesties, but most intolerable to passers-by.

### PARLIAMENTARY.—WATER SUPPLY—SANITARY LAWS AMENDMENT BILL—CONTAGIOUS DISEASES (ANIMALS) ACT.

In the House of Commons, on Thursday, July 16,

Mr. Sclater-Booth, replying to Mr. Whalley, said that when the Sanitary Laws Amendment Bill becomes law, further facilities will be thereby afforded for the storing of water, and suggestions will be given by circular as to the best means of obtaining water.

The Sanitary Laws Amendment Bill was read a third time, and passed, after a suggestion from Mr. Ramsay that Scotland be excluded from the operation of the Bill.

In the House of Lords, on Friday, July 17th,

The Duke of Richmond, replying to Lord Emly, said that no doubt if the ravages of pleuro-pneumonia increased in Ireland to the same extent as they had done in England, the Government would make more stringent regulations for the compulsory slaughtering of infected animals and due compensation to owners. A Bill had passed both Houses enabling money to be raised for the purposes of compensation, but until the disease assumed larger proportions than it had at present attained, he did not think the Irish Government were prepared to undertake compulsory slaughtering.

On Tuesday, July 21,

Earl Beauchamp moved that their Lordships go into Committee on the Slaughter-houses, etc., Bill, by which clauses were inserted providing for better inspection and regulation of the places where such trades were carried on. The House having resolved itself into Committee, certain amendments were proposed and carried.

The Health of Women in Factories and the Vaccination Act Amendment Bills were read a third time and passed.

The amendments to the Public Health Act for Ireland were considered by the House of Commons, and agreed to.

A Twisted Sheet in Aid of Labour.—Speaking of the employment of binders in aid of labour, Dr. Edward Williams says—"A much better plan is that proposed by Dr. Cotting, of passing round the waist a sheet folded like a binder, and twisting the ends together during the pains. But the best contrivance is one which I shall venture to call my own, though it may have been suggested before. It acts on the principle of directing muscular action, and consists in a sheet twisted loosely in the form of a rope, and tied together at the ends. Put the feet into the loop at the lower end and push, grasp the other with the hands and pull. The power exerted in this way is immense: it is the gymnastic paradox of trying to lift oneself, and may be practised, if desired, till the sheet or back gives way. Its effect in labour is surprising, and is immensely appreciated by patients. It brings the body muscles into play. It relieves the distressing sense of helplessness which all women feel, by enabling them to help themselves. It shortens labour. It saves the use of instruments.—*Boston Med. and Surg. Jour.*, June 11.

## THE RESIGNATION OF PROFESSOR BENNETT.

(*From a former Pupil.*)

There are few who at any time have been connected with the Medical School at the Edinburgh University, who will not think with regret of the resignation of Professor Bennett and the prolonged illness which has occasioned it. Amongst the many men whom Edinburgh graduates regard with gratitude as their early and efficient instructors in the healing art, there is not one who commands more numerous or more cordial expressions of esteem than Professor Bennett. The thoroughness of his system of clinical teaching, the clearness of his didactic, and the vigour of his declamatory style, coupled with a not unfrequent display of refined sarcasm, have secured for him such a position in the estimation of his students as few university professors have enjoyed. The long vista of unknown subjects which forms the constant prospect of a medical student, and the necessity for a continuous exercise of plodding industry in the successful study of them, intensifies the enjoyment of any admissible display of brilliancy and histrionic talent in their teacher. The constant necessity under which the student labours, of acquiring a knowledge of statements which he must receive as incontrovertible truths, heightens in his case the pleasure which commonly results from the fluent display of trenchant criticism, and ministers to the development of his mind as an independent inquirer into the phenomena of medical science and the means of alleviating human suffering. In both respects the teaching of Professor Bennett has been of a character to suggest comparison with the lecturing of Trousseau and Graves, but supplemented by a dash of humorous acerbity sometimes traceable to mental irritability arising from physical weakness, though at all times welcome to the Bohemianism which characterises medical-student life.

Throughout the long course of years during which Professor Bennett has taught clinical medicine in the Edinburgh Royal Infirmary, he has persevered in a thorough and attractive system in a manner which has compelled the attention of students, when variety of amusements and the adolescent proclivity to diversity of relaxation might have developed in them only a minimum amount of voluntary devotion to the subject. By a constant endeavour to make students their own teachers in everything relating to physical and symptomatic examination, he has yearly, for a quarter of a century, introduced into the ranks of the medical profession many men thoroughly versed in the knowledge of everything relating to medical practice, and never backward in expressing their admiration of his ability, their gratitude for his instruction, and their concern for his welfare. And though the ablest of his students never anticipated with pleasure the prospect of meeting him at the by no means jovial board of examination—dreading that they themselves might experience that caustic criticism which they so frequently had applauded when administered to others—yet they never failed to grant him credit, as an examiner, for that conscientiousness which he manifested as a lecturer in the Institutes of Medicine, and as a clinical teacher.

We have already stated that though we have not at all times in a public capacity had occasion to agree with Professor Bennett, yet we are not deficient in admiration of his many eminent qualities. We feel sure that both parts of this statement will be widely felt and expressed in professional circles. In science antagonism is by no means an insignificant factor in the determination of progress, and the resolute advancement of new principles and theories is often modified into the acceptance of new truths by the influence of judicious opposition. And now that Professor Bennett has reached the close of a long and distinguished academic career, it must be pleasing to him to know that the necessity for his withdrawal from university teaching is regretted by all who may have been brought into opposition with him as much as by those who in all things and at all times have had occasion to agree with him.

It must also be gratifying to Professor Bennett and his colleagues that so many of his own pupils occupy that high position in physiological science which justifies them in aspiring to occupy the chair he has just resigned. But it has to be remembered that, by Professor Bennett's resignation of the chair of Physiology, another important gap is made in the teaching staff of the University. Like almost all of his predecessors in the chair of the Institutes of Medicine, Professor Bennett was also one of the Professors of Clinical Medicine. Now, we do not suppose that any of the present candidates for the chair are possessed of special qualifications for the teaching of clinical medicine. Their long-continued and arduous devotion to the special furtherance of physiological science has drawn them to a great extent from the study of practical medicine. There is no doubt that, though at present the staff devoted to the teaching of clinical medicine in Edinburgh University is a powerful one, yet as this is a department in modern medicine which is of essential importance, any impairment of its capabilities would soon be painfully evident. The great tendency to specialism in medical science renders it almost impossible that men, as in former years, should be able and advanced teachers in medicine as well as in chemistry or anatomy, medical jurisprudence, or physiology; and it is not improbable that in a large school like Edinburgh the expansion of all sciences may lead to the demand for clinical Professors of Medicine, who will be almost exclusively so. The diminution of the clinical staff by one distinguished member may not have any injurious influence on Edinburgh University, considering the abilities of those remaining on it, but it is not difficult to foresee that subsequent professorial appointments may still further diminish the number of clinical teachers, inasmuch as the men most suitable for holding professorships in special departments of medical science may be utterly unqualified for acting in addition as Professors of Clinical Medicine. We certainly would not advise the Edinburgh Curators to elect their professors in special subjects with any view to their ability to teach clinical medicine. Such a measure would be the surest means of reaching mediocrity in clinical medicine and in everything else. We would earnestly recommend, however, that whatever changes the character of modern science may bring about in the number of clinical lecturers, steps should, if necessary, be taken to fill up unavoidable vacancies, in order that Edinburgh University may maintain that high character for clinical teaching which has been secured for it by men like Rutherford and Cullen and Bennett.

## FROM ABROAD.

### The Automatic Man.

Under this appellation an account is given, in the *Gazette Hebdomadaire* of July 17, of a curious case which has come under the observation of Dr. Mesnet, of the St. Antoine Hospital. A young man during the late war had a portion of the left parietal, about eight centimetres in extent, carried away by a ball. Hemiplegia of the right side was the consequence, but this gradually disappeared. For some time past he has been the subject of attacks, lasting from twenty-four to forty-eight hours, attended by very extraordinary phenomena. During these he seems to act exactly like an automaton, walking continuously, incessantly moving his jaw (*machonnant*), knitting his brow, and appearing absolutely insensible to all that surrounds him. Not uttering a word, he walks straight forward, and when he meets with an obstacle, stops short, explores it with his hand, and tries to pass on one side of it. Surrounded by a circle of persons, he stops at each, and endeavours to pass by the intervals formed by their joined hands, then turns back, comes in contact with the next person, and resumes his round. All this time he never manifests the slightest consciousness, just as if he were in a state of somnambulism. He is absolutely insensible to pain, so that pins may be thrust through the cheek or into the fingers, or very powerful electrical shocks may be administered without the slightest sensibility being manifested. What, however, is very remarkable, is that by bringing him in relation with certain objects we are enabled to determine in him the entire series of acts which are correlative with the sensation thus aroused. Thus, if a pen be placed in his hand, he seeks for ink and paper, and writes a letter in a very good hand, in which he speaks very sensibly about different matters which concern him. If a leaf of cigarette-paper is placed in his hand, he feels in his pocket for the tobacco, rolls up the cigarette very adroitly, and, having found his match-box, lights it. If the match be

extinguished just as it reaches the cigarette, he finds another, and that several times, until he is allowed to light his cigarette. If at the moment when the match is extinguished, another already lighted is presented to him in its place, it is impossible to induce him to light the cigarette by means of the substituted match. He allows his moustaches to become burned without offering any resistance, but he will not employ the light thus presented to him. If chopped charpie be placed in his pocket instead of his tobacco, he makes the cigarette with this, and lights and smokes it without seeming to pay any attention to what he is smoking.

Among the various experiments devised by Dr. Mesnet, there is one which is particularly curious. The young man is a singer at concerts by profession, and if gloves be placed in his hands he immediately puts them on, and searches for paper. When a roll of this, resembling music in form, is given to him, he places himself in the proper position, and begins to sing. It would seem, in fact, that tactile sensation induced in him becomes the point of departure, and as if of escape, of a series of acts correlative to this initial sensation—acts which he accomplishes automatically, without letting them deviate from their habitual and regular succession. Lastly, it is to be noted that, while in this singular condition, the patient steals all that comes within his grasp. If he touches any person, he feels for his watch-pocket, and invariably detaches the watch and puts it in his own pocket, whence it may be immediately removed without his making the slightest opposition. The crisis once over, he has no recollection whatever of what he has been doing, and becomes again perfectly reasonable.

The questions that such a case gives rise to for the reflection of the physician and psychologist are striking. How, indeed, is such a fact to be characterised? and what idea is to be formed concerning the modifications of the functions of the nervous system which it exhibits? A no less interest must be felt by the medical legist, for evidently during these crises such an individual must be absolutely irresponsible. But how, under similar circumstances, are the facts to be ascertained. What precedes is a mere sketch of some of the features of this curious case. Dr. Mesnet, armed with all the resources derived from a consummate experience in the study of mental diseases, has had it for some time under investigation, and will immediately publish a memoir upon the subject.

### Blue Coloration from the Local Use of Nitrate of Silver.

Dr. Duguet recently related an interesting case at the Société de Biologie, in which general blue coloration of the upper portion of the body resulted from the long-continued application of nitrate of silver to the pharynx.

M. Legouest, in his article on Nitrate of Silver in the "Dict. Encyc. des Sciences Méd.," expresses the opinion generally held, that nitrate of silver, when applied to wounds or to the mucous membranes, is not absorbed. The following case shows that such absorption may exceptionally take place. A dressmaker, aged forty-six, entering the Lariboisière for violent headache of long date, attracted Dr. Duguet's attention on account of the blue coloration of the face which she exhibited. It seems that about six years ago, suffering from sore throat, she consulted a charlatan, who treated her by repeated cauterisations of the pharynx, so that in about a year he had applied the nitrate some fifty times. Her resources being exhausted by the quack, she purchased some nitrate of silver herself, and, during the next two or three years, applied it about sixty times, after which the affection of the throat gradually disappeared. After her year's treatment by the quack, her face had assumed a slightly bluish appearance, but as she did not connect it with the application of the nitrate, this was continued, as observed, for two or three years longer. She always swallowed the whitish films that were detached from the mucous membrane. When she came under Dr. Duguet's observation, about two years after the applications had been discontinued, her face was of a slate colour, looking very much as if a thin layer of blue ointment had been uniformly smeared over it. This coloration, gradually losing its intensity, extended to the neck and the upper part of the trunk. As it approached the arms, the lower part of the trunk, and the thighs, the coloration subsided into the natural colour of the skin. Still, the entire skin, right to the extremities, had undergone some modification in its natural colour. The lunulæ of the nails continued pale, without any blue coloration. The soft palate and the pharynx were of a deeper blue than the face, but the tongue, gums, and lips were not discoloured. At first it was difficult to account for the appearance, as the woman declared that she had not taken the nitrate internally, and after the recovery from her throat ailment she had forgotten, until interrogated, the abundant local use which had been made of this substance. The rarity of this local absorption may be judged of by the fact that MM. Charcot and Ball, in their article in the "Dictionnaire," cite a case occurring to M. Krishaber as unique. The subject of this was a man, aged thirty-eight, who for several years past had his pharynx cauterised with a solution of the nitrate several times a week. When seen by M. Krishaber his intensely blue colour at once led to the supposition that he had been taking the nitrate for epilepsy. In this case the entire body was discoloured, and especially the portions of it exposed to the air—viz., the face and hands. These seemed as if coloured with blue, the nails being of a still deeper colour. The gums retained their normal colour, but the pharynx was literally black; so were all the parts at the orifice of the larynx, the cordæ vocales being of a bluish white.

Dr. Duguet feels disposed, both in his own and in M. Krishaber's case, to attribute the occurrence rather to the swallowing of the detached shreds of mucous membrane impregnated with the nitrate than to the local absorption of this. If this last were the case, we ought to see many more instances of the discoloration, considering how constantly the local application of the nitrate takes place.

## GENERAL CORRESPONDENCE.

### THE PATHOLOGICAL EXAMINATIONS AT THE COLLEGE OF SURGEONS.

Letter from Professor W. H. Flower.

[To the Editor of the Medical Times and Gazette.]

Sir,—A small work has lately been published, entitled "A Guide to the Examinations at the Royal College of Surgeons," the intention of which appears to be to frustrate as far as lies in its power the main object for which the Council of the College has long been striving in instituting practical examinations. During the past and present week I have observed in the pathological galleries of the museum many students industriously "reading up" in this book the descriptions of certain preparations stated to constitute the "examination series" used at the pass examinations for the Membership and Fellowship of the College.

It is naturally a source of satisfaction to me to see so much diligence bestowed upon any portion of the collection; but I think it right to give a friendly warning to the gentlemen referred to that it would be wise to extend their studies beyond the range of the ninety-five specimens described in the book, as the choice of the Court of Examiners is by no means restricted to them.

It has been hitherto, and probably will be in future, the practice of the Court to change from time to time the material used for testing the practical acquaintance of candidates with the appearance of morbid structures; and the 4600 preparations in the Museum afford ample variety for the purpose.

I am, &c., W. H. Flower.

Royal College of Surgeons of England,
Lincoln's-inn-fields, W.C., July 15.

*** The observations of Mr. Flower are exceedingly well timed, and amply justified. How any other view could for a moment have prevailed is complimentary to the general simplicity of mind in the medical student, but hardly to his sagacity.

The Out-Patient System at Lyons.—In Paris and all the large towns of France there is the same abuse of indiscriminate gratuitous advice at the hospitals as with ourselves—persons who are perfectly well able to pay not hesitating to overcrowd the out-patient rooms. Not only do many thus get gratuitous advice most undeservedly, but the number of patients is rendered so numerous as sometimes to require 100 to be seen within the hour. At Lyons the authorities have determined upon attempting to limit this abuse by laying down the rule that no applicant shall be entitled to gratuitous advice unless provided with a recent *certificat d'indigence*.—*Union Méd.*, July 14.

## NEW INVENTIONS.

MR. JOHN WALKER'S DIGESTIVE BISCUITS.

Mr. Walker, of Glasgow, is well known as a first-class biscuit manufacturer, and he has lately brought out some "Digestive," "Patent Groat," and "Duchess Marie" biscuits, which are worthy of commendation. The first are made from the finest wheaten meal, the second from flour of the finest Scotch groats, and the third from wheaten meal and flour of groats. They are pleasing to the eye and to the palate, and, so far as our experience of them goes, are to be recommended as nutritious and non-irritant articles of diet. The London agents are Messrs. Hanson, Son, Evison, and Barter, of Botolph-lane, E.C.

## MEDICAL NEWS.

King and Queen's College of Physicians, Ireland.—At the usual monthly examination meetings of the College held on Tuesday, Wednesday, and Thursday, July 14, 15, and 16, the Licence to practise Medicine was granted to—Andrew Fergey Adams, John Hall Andrews, John Bark, John Eaton, Samuel Thomas Gordon, William K. Heffernan, William Keays, Joseph John Lamprey, Richard Hawtrey Lyon, Charles Edward Macnamara, David Williams Morris, Francis Newsham, Conolly Norman, John Augustine Orr, William John Read Rainsford, James Rooney, Patrick Aloysius Shannon, William Smith (*Clerk*), David Dunn Stewart, Ralph Stone, William Walter, Arthur Woodlock. The Licence in Midwifery also was granted to—John Eaton, William K. Heffernan, William Keays, Joseph John Lamprey, Charles Edward Macnamara, John Augustine Orr, William John Read Rainsford, James Rooney, and William Walter.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 21st inst., viz.:—

Atkinson, Francis Edward, Albion-place, Leeds.
Davies, Francis Thomas, L.R.C.P. Edin., Pendleton, Manchester.
Farley, John Jay, M.D., McGill College, Belville, Canada.
Fotbergill, John Alexander, Alfred-place, W.
Fowler, James Kingston, Arlington-street.
Gibbons, Robert Alexander, M.B. Edin., Inverleith-row, Edinburgh.
Gresham, Frederick Charles, Springfield, Liverpool.
Jones, Richard Sorton, Bangor.
Martin, John Micbael Harding, St. Helen's.
Newman, Charles, Bristol.
Robson, Arthur William Mayo, Leeds.
Saundby, Robert, M.B. Edin., Edinburgh.
Stevens, Frederick George, Kingswood, Bristol.
Stopford-Taylor, George Grayson, L.K. & Q.C.P.I., Liverpool.
Webb, Charles Ford, Stockwell.

Four candidates who had passed in Surgery at previous meetings of the Court, having subsequently obtained medical qualifications, were admitted Members of the College, viz.:—

Cotton, Holland John, M.B. Edin., Edinburgh.
Mavor, William Samuel, L.R.C.P.L., St. Leonard's-on-Sea.
Priestley, Clement Edward, St. Faith's.
Sbuter, James, M.B. Cantab., Holloway.

Walter Hallam, of Sheffield, who had previously qualified in Surgery, having passed in Medicine, was also admitted a Member of the College. Three candidates passed the examination in Surgery, and when qualified in Medicine will be admitted Members. Six candidates were referred to their surgical studies for a period of six months.

The following gentlemen passed on the 22nd inst., viz.:—

Cobbold, Charles Spencer Waller, M.D. Würburgh, Portesdown-road.
Cree, William Edward, L.S.A., Upper Holloway.
Davey, Charles James, L.S.A., Witham, Essex.
Davies, Elijah Knox, L.S.A., Stroud.
Erith, William Edward Norton, Camden-road, N.W.
Frost, William Adams, Ladbroke-square, W.
Gwatkin, Owen, Brighton.
Hardy, James Arthur, Adelaide, S.A.
Kirby, Samuel John James, Stratford.
Knox, Charles Frederick, Trinidad, West Indies.
Lendon, Edwin Harding, Maidstone.
Low, Charles Arthur, Wimborne, Dorset.
Phillips, Edward James Montague, Liverpool.
Rowntree, William George, Islington.
Spitta, Edmund Johnson, Clapham-common.
Thomson, Peter James, Harrington-street.
Travers, Otho Robert, L.S.A., Cheam.
Voces, William Mallam, L.S.A., Yarmouth.
Whately, George Frederick, L.S.A., Great Berkhempstead, Herts.

The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 16th inst., and when eligible will be admitted to the pass examination:—

Alford, George Ernest, Bristol.
Brett, John Talbot, Guy's Hospital.
Cambridge, Thomas Arthur, Middlesex Hospital.
Cooper, James Cooper, Edinburgh.
Collyns, Robert Thomas Poole, University College.
Dresser, Arthur Kinnaird, St Thomas's Hospital.
Grimwood, John Joseph Wright, Guy's Hospital.
Hawkins, Frederic Mortimer, St. George's Hospital.
Holyoake, John Percy, Birmingham.
Jameson, George Herbert, Edinburgh.
Jones, Abraham Emerys, Edinburgh.
Leslie, George Herbert, Liverpool and Middlesex Hospitals.
Lloyd, David, University College.
Mirza Hussem (Khan), St. Mary's Hospital.
Parker, Alfred Charles, Guy's Hospital.
Paul, Reginald, Middlesex Hospital.
Prowse, William Byass, London Hospital.
Richards, Thomas, Guy's Hospital.
Richards, Thomas, Guy's Hospital.
Roche, Eugenius Alfred, St. Mary's Hospital.
Shortridge, Thomas Wood, Leeds.
Smith, William Henry, St. Mary's Hospital.
Thomas, Tallis Russell, Middlesex Hospital.
Walker, Horace, University College.

Twenty-one were referred to their anatomical studies for three months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 16:—

Barber, Edward, Sheffield.
Ford, Robert Giles, Suffolk-street, Commercial-road.
Lidderdale, James, Lock Hospital.
Thomas, Herbert Henry, Queen's-crescent, Haverstock-hill.

The following gentleman also on the same day passed his primary professional examination:—

Taylor, James, the Bristol School of Medicine.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Fairbank, William, M.R.C.S., L.S.A.—House-Surgeon to the Wigan Infirmary and Dispensary, *vice* J. Macloghlin, resigned.

Power, George E., M.R.C.S., L.S.A.—Assistant House-Surgeon to the General Hospital, Nottingham.

Yellowlees, David, M.D., L.R.C.S.—Physician-Superintendent of the Glasgow Royal Lunatic Asylum.

### BIRTHS.

Brend.—On July 4, at 6, Argyll-road, Kensington, the wife of William Brend, M.R.C.S., of a daughter.

Crane.—On July 15, at Hallaton, Leicestershire, the wife of Charles A. Crane, M.D., of a son.

Elphick.—On April 20, at Tea-tree Gully, near Adelaide, South Australia, the wife of Edward Elphick, M.R.C.S. Eng., etc., of a son.

Furber.—On July 17, at Ashford-road, Maidstone, the wife of George H. Furber, M.R.C.S. Eng., L.S.A., of a daughter.

### MARRIAGES.

Evans—Young.—On July 14, at All Saints' Church, Hertford, Ernest Richard, son of the late R. D. J. Evans, M.D., Hertford, to Mary Fanny, eldest daughter of B. Young, Esq., of Mangrove Hall, Hertford, and Howe-green, Herts.

Flint—Bower.—On July 16, at the Congregational Church, New Brighton, Cheshire, Frederick Flint, M.D., of Norwich, third son of Frederick Flint, Esq., Canterbury, to May Lance, fourth daughter of Alfred Bower, Esq., New Brighton.

### DEATHS.

Allen, Susanna, wife of B. H. Allen, M.D., M.R.C.S., of Hastings, on July 16, aged 27.

Druitt, Jane, widow of Robert Druitt, surgeon, of Wimborne Minster, and daughter of the Rev. James Mayo, Master of Queen Elizabeth's Grammar School at Wimborne, and Vicar of Avebury, at Wimborne Minster, on July 18, in her 83rd year.

Hodges, Michael Henry, third son of Richard Hodges, M.D., F.R.C.S. at 16, Orchard-street, Portman-square, after years of suffering, on July 17, aged 21.

Rix, Richard Avery, M.R.C.S. Eng., L.S.A., late Medical Officer to the Chontales Consolidated Mining Company, Nicaragua, suddenly, on board the Royal Mail steamship *Nile*, off Greytown, Central America, on June 17, in his 32nd year.

Thorn, Richard Lawrence, M.R.C.S. Eng., L.S.A., at his residence, 137, Buckingham-palace-road, Belgravia, S.W., on July 21.

### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Buckingham Infirmary.—Resident Surgeon and Apothecary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, George Fell, Esq., Solicitor, Aylesbury, on or before August 4.

Burnley Union.—Medical Officer of Health. Candidates must be legally qualified medical practitioners and registered under the Medical Act of 1858. Applications, with testimonials, to A. Stanley Dean, Poor-law Offices, Nicholas-street, Burnley, on or before July 27.

Durham University Colleges of Medicine and Physical Science, Newcastle-on-Tyne.—Professorship in Biology. Applications, with testimonials, to T. Wood Bunning, Esq., Secretary, before August 15.

East London Hospital for Children, Ratcliff-cross, E.—Assistant Visiting Physician. Candidates must be duly qualified. Applications, with testimonials, on or before July 30.

Hendon Union.—Medical Officer. Applications, with testimonials, to Mr. W. A. Tootell, Clerk, Edgware, on or before July 29.

Hull General Infirmary.—Resident Assistant-Surgeon. Applications, with testimonials, to the Chairman. The office will be vacant on September 1.

Liverpool Northern Hospital.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Committee, before August 3.

Metropolitan Free Hospital, Devonshire-square, E.C.—Honorary Assistant-Physician. Applications, with testimonials, to the Committee of Management, on or before August 4.

Newport Infirmary, Monmouthshire.—Resident Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to the Secretary, on or before August 5.

Owens College, Manchester.—Professorship of Anatomy. Applications, with testimonials, to the Council, under cover to the Registrar, on or before August 1.

Rochdale Infirmary.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Mr. Ernest E. M. Rodys, Clover Cottage, Rochdale.

Royal Free Hospital, Gray's-inn-road, W.C.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before August 5.

Staffordshire General Infirmary, Stafford.—House-Surgeon and Secretary. Applications, with testimonials, to the Secretary, on or before August 1.

West Sussex, East Hants, and Chichester General Infirmary and Dispensary.—Assistant House-Surgeon. Applications, with testimonials, to the Secretary, on or before August 5.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Aston Union.*—The First District is vacant; area 335; population 25,521; salary £60 per annum.

*Manchester Township.*—Mr. W. A. Patchett, Senior Assistant Medical Officer at the Workhouse Hospital, has resigned; salary £190 per annum.

*Witney Union.*—Mr. Edward F. Whitaker has resigned the First Bampton District; area 10,960; population 2732; salary £72 per annum.

### APPOINTMENTS.

*Basford Union.*—Dugald Campbell, M.D. Glasg., M.R.C.S. Eng., to the Codnor Park District.

*Epping Union.*—Trevor Fowler, L.K.&Q.C.P. Ire., L.R.C.S. Ire., to the Thoydon Bois District.

*Halifax Union.*—Thomas Tweedale, M.R.C.S. Eng., to the Staniland District.

*Leicester Union.*—Edward R. Denton, M.R.C.S. Eng., L.S.A., to the Second District.

*Penkridge Union.*—Frederick Boldero, M.R.C.S. Eng., to the Penkridge District. George A. Baddeley, M.R.C.S. Eng., L.S.A., to the Church Eaton District.

*Thorne Union.*—Alexander Cameron, L.F.P.&S. Glasg., L.R.C.P. Edin., to the Hatfield District. Hugh W. Arbuckle, M.D. Aber., L.R.C.P. Edin., L.F.P.&S. Glasg., to the Stainforth District.

Royal College of Surgeons of England.—The following were the questions submitted to the candidates for the diploma of Membership of this College, in the examination on Surgical Anatomy and the Principles and Practice of Surgery, on July 17:—1. Describe the boundaries of Scarpa's triangle; and mention what tumours or swellings you may meet with in this region, and how you would distinguish them. 2. In what stages of their course may burns prove fatal? State what are the causes of death in each stage. 3. What are the causes and symptoms of perineal abscess? State how you would treat such a case, and what consequences may result from its neglect. 4. What injuries are likely to result from a violent fall on the palm of the hand, with the arm raised and extended? Explain the mechanical mode in which such injuries are produced. 5. Describe the operation of placing a ligature on the brachial artery in the middle of the arm; and state by what vessels the circulation is re-established collaterally, and how the separation of the ligature is effected. 6. Describe, in their respective relations to each other, the various parts which must be divided in circular amputation of the leg, where the bones are sawn through immediately below the tubercle of the tibia.—The following questions on the Principles and Practice of Medicine were required to be answered by the candidates for the diploma of Membership, on July 18:—1. You are summoned to an adult patient in a state of coma, and of whom you have no history. How would you proceed to examine the case so as to determine its nature? What are the chief causes of coma? 2. What are the diseases with which enteric fever (typhoid) is liable to be confounded in its earliest stages? By what symptoms would you be guided to a diagnosis in doubtful cases? What symptoms would make your diagnosis certain? What are the chief sources and indications of danger in this disease? 3. Give the medical properties of the following preparations, and the doses in which you would use them—Tr. digitalis, zinci sulphas, ext. belladonnæ, ext. ergotæ liquidum, ol. terebinthinæ, liq. arsenicalis, succus conii.

The Shoreditch Vestry have resolved to continue Dr. Stevenson's appointment as Public Analyst for another year from Midsummer last, at the same terms as before—viz., £50 per annum salary and 10s. for each analysis.

The "Peculiar" People Again.—A member of the sect known as the "Peculiar" People, named Thomas Hinds, of Woolwich, has been committed for trial at the next session of the Central Criminal Court on a charge of manslaughter of his child, Joseph Hinds, aged two years, by neglecting to provide it with proper remedies and attendance during its illness. The medical evidence showed that death had resulted from pleurisy and pericarditis, but that if the child had had ordinary medical attendance it would in all probability have recovered. The defence of the accused was to the effect that they had trusted in God to restore the child to health, and that all he had done "was for the glory of God." It is to be hoped that the "Peculiar" People may be taught that if they neglect themselves when sick, the lives of their children are not to be sacrificed with impunity.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*R. B. Taylor.*—Mr. Spencer Wells on "Diseases of the Ovaries."

*Nervous.*—Consult the best surgeon within your reach, and adhere to his advice.

*V., Southsea.*—Dr. Turner's "Elements of Chemistry," p. 656.

*Phrenologist.*—The skulls of Jonathan Wild, Eugene Aram, and John Thurtell are in the Museum of the College of Surgeons, and it is said that of Ben Jonson is not far off.

*Mr. C., St. Thomas's Hospital.*—Cheselden was buried in the old military ground of Chelsea Hospital. The tomb was lately restored. Mr. Wrench is a Fellow of the College. By a curious coincidence the three dressers in 1854 were Messrs. *Brake*, *Wrench*, and *Slaughter*.

*Used Up.*—Try the coast of South Devon;

> "Thence to Sidmouth's blessèd well,
> Whose spring can frenzied dreams dispel,
> And the crazed brain restore."

*M.D., Clapham.*—David Griffith Jones was struck off the list of members immediately after his conviction. Since his release from prison he has removed to Kennington, where he is now in practice. Mr. Stone will give you the desired information.

*A Spaniard.*—It is generally agreed that Herophilus was the first physician who was fully aware of the importance of the pulse, and paid particular attention to its various conditions.

*A Vaccination Officer.*—In a case of appeal lately heard in the Court of Queen's Bench against a similar conviction by the magistrate, the Court decided that the continued disobedience was a continued offence, which might be repeatedly punished; but a recent Act of Parliament (34 Vict.) required that a new order to vaccinate should be made every year in case of non-compliance with the previous order.

*Inquirer.*—Dr. Wollaston died of an organic disease of the brain, which originated in a slow chronic inflammation. Four years previous to his death, in 1828, he read before the Royal Society a paper on a peculiar defect of vision to which he was subject, and which it is supposed was a symptom of the incipient disease of the brain.

*M. H. D.*—The Michigan State Medical Society numbers about 225 members.

*M. G. M.*— "His vigorous remedy displayed
The power of art without the show."

*Senex.*—In the *Medical Gazette* for May, 1831, is related a case of fungus hæmatodes of the kidney in a subject only four years of age.

*A late Examiner.*—We entirely agree with you, and think, after what has transpired at the Medical Council, that the attention of the President of the London College of Surgeons should be directed to the facility for obtaining, *ad eundem*, the Fellowship and Membership of his College by the Fellows and Members of the institution mentioned. We know a case also where a candidate had been rejected just *double the number of times* mentioned by Dr. Macnamara, and yet obtained the *first time* he applied for it a medical and surgical degree. Dr. Quain could obtain the information he so much desired by inquiry in this metropolis, without pressure on Dr. Macnamara.

*Dr. McDonald.*—The bills of mortality were commenced by the Parish Clerks' Company in 1592, who, about 1625, were licensed by the Star Chamber to keep a printing press in their Hall for printing the bills, valuable for their warnings of the existence or progress of the Plague. The weekly bills of the parish clerks have, however, been superseded by the *Table of Mortality in the Metropolis*, issued weekly from the Registrar-General's office since May 1, 1837. The Library of the College of Surgeons' parish registers were first proposed in 1538, and in 1559 an order was issued that they should be kept in parchment-books.

*Forceps, Strand.*—Mrs. Mapp was a celebrated "bone-setter," who flourished in 1736. She saw patients at the Grecian Coffee-house, to which she drove once a week in a coach-and-four from her residence at Epsom. The gentleman mentioned is a highly qualified practitioner.

*H. L., St. Bartholomew's.*—Mr. Wormald had been Assistant-Surgeon for more than a quarter of a century prior to becoming full Surgeon, which office he only held a year or two—

"How hard was poor Tom Wormald's lot
Among chirurgic sages:
He all the work and honour got,
While they got all the wages."

*Mr. Coleridge.*—Yes. Mr. J. H. Green, of St. Thomas's Hospital, delivered the Hunterian Oration on two occasions—viz., in 1840 and 1847. They were subsequently published under the titles of "Vital Dynamics," and "Mental Dynamics." Mr. Clarke, who delivers the next, is Consulting Surgeon to the same hospital. You will find an amusing account of the circumstance to which you allude in Clarke's "Autobiographical Recollections," page 270.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Northampton Mercury—Daily Telegraph—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette Médicale—Gazette Hebdomadaire—Gazette des Hôpitaux—La France Médicale—Le Progrès Médical—La Tribune Médicale—Bulletin de l'Académie de Médecine—Paris Medical Record—The Science of Health—The Phrenological Journal—The Illustrated Annual of Phrenology and Physiognomy—Students' Journal and Hospital Gazette—Revue des Sciences Médicales—Knaresborough Post.

COMMUNICATIONS have been received from—

Nervous; Dr. J. C. Murray, Newcastle-on-Tyne; Dr. H. Finch, Colchester; Dr. Edis, London; Mr. G. C. Coles; Mr. J. B. Blackett, London; Mr. D. Coyder, Bradford; Mr. E. Elphick, Adelaide, S.A.; Dr. Brinsley Nicholson, Red-hill; Messrs. Kinloch and Co., London; Dr. Edwards-Crisp, London; Mr. J. Wickham Barnes, London; the Registrar-General, Edinburgh; Mr. W. Cross, Clifton; Mr. E. M. Kidd, Nottingham; Dr. Lawson, Wakefield; Dr. J. E. Pollock, London; Mr. J. Chatto, London.

BOOKS AND PAMPHLETS RECEIVED—

The Annual Discourse before the Massachusetts Medical Society, by Dr. Nathan Allan—Lecture on Public Health, delivered in the Lecture-hall of the Royal Dublin Society—Tables of Materia Medica—Dickinson on Tropical Debility—Tyrell on the Use of Strychnine in Epilepsy—Alford's Hints on Public Health—Ballard on Hereditary Syphilis—Blake on the Connexion between Isomorphism, Molecular Weight, and Physiological Action—Nicholson's Indian Snakes, second edition—Blake on Sulphur in Iceland.

## APPOINTMENTS FOR THE WEEK.

*July 25. Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

27. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

29. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

31. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, July 18.*

### BIRTHS.

Births of Boys, 1141; Girls, 1182; Total, 2323.
Average of 10 corresponding years 1864-73, 2051·0.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 835 | 699 | 1534 |
| Average of the ten years 1864-73 | 707·8 | 645·7 | 1353·5 |
| Average corrected to increased population | ... | ... | 1489 |
| Deaths of people aged 80 and upwards | ... | ... | 50 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 5 | ... | 2 | 4 | 1 | 3 | ... | 50 |
| North ... ... | 751729 | ... | 5 | 2 | ... | 5 | 9 | 3 | 2 | 68 |
| Central ... | 334369 | ... | 1 | 4 | 1 | 1 | 1 | 4 | 1 | 22 |
| East ... ... | 639111 | ... | 2 | 14 | 1 | 6 | ... | ... | 1 | 62 |
| South ... ... | 967692 | 1 | 8 | 4 | 2 | 9 | 7 | 7 | 2 | 36 |
| Total ... ... | 3254260 | 1 | 21 | 24 | 6 | 25 | 18 | 17 | 6 | 238 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·971 in. |
| Mean temperature | 65·7° |
| Highest point of thermometer | 86·7° |
| Lowest point of thermometer | 46·2° |
| Mean dew-point temperature | 55·3° |
| General direction of wind | W.S.W.& E. |
| Whole amount of rain in the week | 0·00 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 18, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending July 18. | Deaths Registered during the week ending July 18. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2323 | 1534 | 86·7 | 46·2 | 65·7 | 18·72 | 0·00 | 0·00 |
| Portsmouth ... | 120436 | 26·8 | 73 | 43 | ... | 48·2 | ... | ... | 0·00 | 0·00 |
| Norwich ... ... | 82257 | 11·0 | 30 | 30 | 84·0 | 51·0 | 63·7 | 17·61 | 0·08 | 0·20 |
| Bristol ... ... | 192889 | 43·3 | 126 | 77 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 44 | 29 | 85·2 | 47·5 | 66·5 | 19·17 | 0·04 | 0·10 |
| Birmingham ... | 360892 | 43·0 | 261 | 169 | 82·0 | 49·6 | 63·4 | 17·44 | 0·04 | 0·10 |
| Leicester ... ... | 106202 | 33·2 | 91 | 62 | 80·3 | 50·0 | 64·7 | 18·17 | 0·04 | 0·10 |
| Nottingham ... | 90894 | 45·5 | 62 | 41 | 80·9 | 49·7 | 64·0 | 17·78 | 0·01 | 0·03 |
| Liverpool ... ... | 510640 | 98·0 | 346 | 285 | 82·3 | 55·0 | 64·1 | 17·83 | 0·81 | 2·06 |
| Manchester ... | 355339 | 82·8 | 251 | 189 | 85·5 | 51·9 | 66·7 | 19·28 | 0·72 | 1·83 |
| Salford ... ... | 133068 | 25·7 | 107 | 79 | 85·4 | 49·9 | 65·1 | 18·39 | 0·68 | 1·73 |
| Oldham ... ... | 86281 | 18·5 | 68 | 45 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 111 | 75 | 79·2 | 53·9 | 62·2 | 16·78 | 0·34 | 0·86 |
| Leeds ... ... | 278798 | 12·9 | 150 | 177 | 79·0 | 52·0 | 63·1 | 17·28 | 0·59 | 1·50 |
| Sheffield ... ... | 261029 | 13·3 | 197 | 120 | 83·5 | 50·5 | 64·3 | 17·94 | 0·08 | 0·20 |
| Hull ... ... ... | 130996 | 36·0 | 92 | 45 | 78·0 | 46·0 | 60·2 | 15·66 | 0·18 | 0·46 |
| Sunderland ... | 104378 | 31·6 | 46 | 41 | 80·5 | 51·0 | 63·8 | 17·67 | 0·07 | 0·18 |
| Newcastle-on-Tyne | 135437 | 25·2 | 90 | 67 | 77·0 | 53·0 | 61·5 | 16·39 | 0·13 | 0·33 |
| Edinburgh ... ... | 211691 | 47·8 | 135 | 87 | 81·4 | 44·3 | 62·5 | 16·94 | 0·43 | 1·09 |
| Glasgow ... ... | 508109 | 100·4 | 400 | 251 | 79·8 | 48·3 | 63·0 | 17·22 | 0·57 | 1·45 |
| Dublin ... ... | 314666 | 31·3 | 190 | 124 | 81·3 | 48·0 | 63·4 | 17·44 | 0·15 | 0·38 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5193 | 3570 | 86·7 | 44·3 | 63·8 | 17·67 | 0·26 | 0·66 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·97 in. The lowest was 29·79 in. at the beginning of the week, and the highest 30·10 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## A CLINICAL LECTURE ON FACIAL NEURALGIA WITH HYSTERIA.

DELIVERED AT WESTMINSTER HOSPITAL.

By FRANCIS E. ANSTIE, M.D., F.R.C.P.,
Physician to Westminster Hospital, and Lecturer on Medicine in Westminster Hospital School.

Gentlemen,—A girl, whose tedious case is at last approaching cure, affords me the opportunity of comparing and contrasting neuralgia of the fifth cranial nerve with neuralgia of the sciatic, on which I was lecturing the other day. There are also various other points of great interest in the case.

Emma T., aged 21, was admitted to Tillard ward on January 18, the statement of her friends being that she had had no less than five fits in twenty-four hours. We made as careful inquiry as was then possible, and it really appeared as if she had been attacked with genuine epilepsy, for according to the accounts given she was perfectly unconscious and foamed at the mouth in each attack. I desired the House-Physician to watch her very narrowly, and the nurses had orders to call him to her immediately if a convulsion should come on.

At the time of her admission the girl was, as she is now, very stout and florid. The left eyelid was completely closed, yet scarcely with the blank smoothness of simple paralytic ptosis, but rather as if spasm of the orbicularis had the chief part in the matter. She declared, however, that she could not open it in the least. It appeared that this closure of the eye had come on some eight months previously immediately after a fall, in which she cut the left side of the head severely; and on this account, as well as to investigate the remote possibility of constitutional syphilis, I asked Mr. Holthouse to look at the patient. He pronounced decidedly that there had been no serious injury from the fall; and as regards syphilis, he pointed out the spasmodic rather than truly paralytic character of the closure of the lid, and the great improbability that of all the branches of the third only that one should be paralysed which supplies the levator palpebræ superioris. He pronounced the whole train of phenomena to be probably "hysterical."

In one important respect Mr. Holthouse's diagnosis was soon verified. The fits, which recurred at uncertain intervals, and sometimes happened several times in a day, were at first treated by us as genuinely epileptic, but there was a strange fatality in the way in which they would persist in happening just when the House-Physician was out of reach. I may so far anticipate matters as to mention what was the end of this part of the case. After she had been in the hospital for three or four weeks, the House-Physician got the opportunity of seeing her in a convulsion, and watching her narrowly. He came to the conclusion that she was not really unconscious, and that the attack was, in fact, hysterical, and not epileptic in character. I determined to deal with this in a vigorous manner, and I carefully explained to the nurses, in the patient's hearing, that the moment she went into a fit a large quantity of cold water was to be thrown over her. Thereupon she at once ceased to have fits in the daytime, but continued to have them frequently at night, when she knew very well there would be more trouble and difficulty for us to insure her a prompt ducking. We were determined not to be beaten, however. Mr. Heale, the then House-Physician, exerted himself enthusiastically, and managed to give her two or three effective duckings, even at the most inconvenient hours, after which she gave up the fits altogether.

It is not often that I deal with hysterical cases in this way, and I do not wish to give you the idea that most, or even many, subjects of hysterical convulsion ought to be treated in such a manner. Our patient was a hysteric of a special type. She was very fat, and, in muscular development, up to a fair average; there had been no chronic illness such as might have impaired her constitutional tone; and it seemed, on the whole, as if she were merely a girl of originally weak will and limited self-control, who had allowed herself to be frightened by the fall which she had sustained into the idea that she must be very ill. Had she been really delicate and feeble, as very many hysterical patients are, I should not have ventured to inflict a severe shock upon the system; but as she seemed to possess sufficient strength to make it probable that there would be a healthy reaction, it appeared worth while to make a vigorous attempt to rouse her from a state of feeble volition which was evidently fast tending in the direction of moral enfeeblement accompanied with a good deal of imposture. Our experiment, as you have seen, was successful.

The remaining symptoms proved far more intractable; and I wish distinctly to acknowledge that our diagnosis was too partial, and led to an unnecessary delay in the completion of the cure. She had complained at frequent intervals since her admission of severe pain in the left side of the forehead and face, but I did not at first identify the neuralgic character of these pains. The reason of this was that she not only spoke of them in a tone which appeared exaggerated (as well as we could judge from her appearance), but varied greatly in her description of them from day to day, and, moreover, exhibited such an extreme hyperæsthesia to touch as seemed much more like that which belongs to the hysterical temperament than the more limited and definite tenderness which characterises the genuine neuralgias. Under these circumstances, I allowed the idea of hysteria to take too exclusive possession of my mind; and, indeed, there were still various symptoms about her that obviously belonged to that category. For instance, she frequently vomited, and this vomiting had no definite connexion with the attacks of pain in the head; nor, on the other hand, was there any appearance of the tongue which would countenance the idea of a genuine dyspepsia. She also professed a complete inability to retain solid food on the stomach, which, in the absence of any morbid appearance of the tongue, was strongly suggestive of a half-delusion, half-imposture, which we very frequently observe in hysterical females.

It may be as well here to record the various measures which we adopted during the first nine weeks of her stay in the hospital. For some days after her admission I thought it right to give a fair trial to anti-syphilitic remedies, because, although the hypothesis of syphilis was a very improbable one, it was not impossible, and had that malady really been the root of the mischief, the symptoms would have indicated dangerous lesions, and anti-syphilitic treatment would have produced decided and speedy relief. Neither iodide of potassium, however, nor small doses of hyd. bichlor. had any effect either upon the fits, the affection of the eyelid, or the pain in the head. From January 26, the hysterical character of the complaint being now strongly impressed on my mind, I gave her, in succession, bromide of potassium in full doses (on account of probable ovarian excitement), bismuth, hydrocyanic acid, creasote (for the vomiting); then quinine for two days only and in small doses, which, however, she declared made her immediately sick; then again bromide of potassium in large doses. On March 10, as she complained of great weakness, we allowed her a little wine, but the hysterical symptoms seemed rather aggravated by this; and on the 13th I gave her an exceedingly nauseous mixture of assafœtida, chloride of ammonia, and tincture of valerian, omitting the wine.

On March 18, by which time the fits and the vomiting had ceased, and the patient was beginning to take and retain some solid food, I addressed myself in a more particular manner to the pain in the head and the closure of the eyelid. Still impressed with the hysterical aspect of the whole case, I determined to try the effects of faradisation, which often speedily cures hysterical hyperæsthesia, paralysis, and spasm. The interrupted current was therefore applied, at firstly mildly and then pretty sharply, daily during nine days, to the forehead, the eyelid, and the cheek; but no good effects were produced. On the contrary, while the eyelid remained wholly and spasmodically closed, the pain, according to the patient's account, became much worse.

From March 27 we frankly gave up the idea that the facial pain and the closed eyelid were at all specially due to hysteria. That the girl was of that temperament was obvious, but the active manifestations of hysteria had subsided, her general self-control was greater, while at the same time she gave a much more definite and coherent description of the pain. She described it as centreing in, and radiating from, the following points—(1), supra-orbital, just above the notch of that name; (2), opposite the infra-orbital foramen; (3), on the malar bone; (4), in front of the ear, upon the aurico-temporal nerve. The pain was also described as much more regularly paroxysmal than at first, recurring several times daily with great intensity for some minutes at a time. Thus we had very clearly before us the picture of a neuralgia affecting large branches of the first and second divisions, and a smaller branch of the third division of the fifth cranial nerve, otherwise called the trigeminal or trifacial, of the left side; and

it was open to more than suspicion that the spasmodic closure of the left eye was a symptom parallel to the neuralgia, and analogous to the far more severe and generalised spasms of the facial muscles which occur in the worst forms of tic douloureux. At this point we noticed a phenomenon which either had not previously existed or else had been overlooked. On one or two occasions I saw the patient immediately after an unusually long and severe attack of pain; I then noticed a very obvious tumefaction, and bright redness of the cheek and temple. Now this, equally with the palpebral spasm, is a characteristic example of the secondary phenomena which frequently attend severe neuralgias: it was a condition of localised vaso-motor paralysis. I am afraid we must admit that our last remedy—the faradic or induced current—had aggravated the neuralgia and its dependent phenomena.

Having made up our minds to deal with the facial symptoms as truly neuralgic, we commenced (March 27) with the use of a powerful local sedative—extract of belladonna one part, glycerine two parts, rubbed into a thick smooth liniment. This afforded no relief whatever. On the 31st we ordered a blister behind the ear; and this decidedly, though but temporarily, relieved the pain: and I may mention that on many subsequent occasions we resorted to flying blisters in the neighbourhood of the various foci of pain (not exactly *upon* them), and always with considerable benefit; indeed, the girl would always ask for a blister when the pain had been worse than usual. We tried the bromides again, but they were useless; hypodermic morphia also, chloride of ammonium, and cannabis indica were tried, with perfectly negative results. We then determined to give a fair trial to quinine, and gave five-grain doses three times a day. This made an immediate impression; and from that time she never seriously relapsed. It has taken, however, full four weeks of the treatment to completely arrest the paroxysms. At present (July 2) she has been completely free from pain for some time, and the spasm of the eyelid is more than half cured. She speaks quite cheerfully about herself, and says she feels well. [She had some partial relapses, but on July 13 left the hospital quite well.]

The case which has just been narrated to you is of a rather uncommon kind. It is not often that you get a true and severe neuralgia so completely masked in its early stages by the phenomena of hysteria. Still, there is nothing to prevent hysterical persons from having true neuralgia if the necessary conditions be present; and, in fact, a good many hysterical women—though far fewer than is generally supposed—suffer from neuralgia of perfect type.

As regards the immediate or exciting cause of the neuralgia in our patient, I am inclined on the whole to trace it to the severe blow on the left side of the head which she had received some eight months previous to the occurrence of the series of "fits" for which she was admitted to the hospital. It is true that the neuralgia did not at once develope in complete form after this blow, but she spoke of having had very frequent headache, and much depression of mind, though strong enough in body. It is evident that there was considerable shock to the nervous centres, sufficient to set up the hysteric state; and it is probable that the same influence operated, more slowly, to produce the trigeminal neuralgia. I have several instances in my mind in which a shock of this kind was undoubtedly the precipitating cause of a neuralgia which might otherwise never have occurred, although weeks or months elapsed before the full development of the typical pain. But in such cases there is mostly a family predisposition to neurotic diseases, and I therefore carefully interrogated our patient on this subject. Her ascertainable health genealogy does not go very far back, but she positively stated that no blood-relation, that she had ever heard of, had had any of the graver nervous disorders, adding, however, that her own mother was the most "nervous" person she ever knew, and apparently had been so all her life. It is quite possible that there have, in reality, been more and graver nervous diseases in the mother's family than our patient is aware of. However, we have no proof of this, and must content ourselves with the knowledge that from her mother she may have inherited a certain instability of the nervous system.

Neuralgia of the face is a tolerably common disease in young females, but, for the most part, neither its form nor its history are what they were in this case. The form which is most frequently seen is that of migraine, or periodical sick-headache, commencing spontaneously some time between puberty and the age of twenty-five, but usually before the age of twenty. Indeed, it may occur from the very first development of sexual function, and in rare cases even precedes this. I am not going to repeat the minute description of this malady, because I have recently written so much about it, and made it the subject of a clinical lecture here, which you can read in the *Practitioner* for 1872 (vol. ix.). But I may remind you that I spoke of migraine, and of the allied *clavus*, which for the most part occurs in chlorotic girls, as diseases essentially belonging to the period of bodily development, tending to change their form in later life.

What was migraine in the growing girl (or boy) becomes ordinary trifacial neuralgia in the adult whose frame is consolidated—without sickness, with little or nothing of the lengthened and perfectly regular intervals of migraine,—and finally, in most cases, dies out in middle age. Our patient has no such history, for it does not appear that she has at any time been liable to periodical sick-headache, nor (up to the time of the blow) specially to headache of any kind. It therefore becomes important to consider how far the improvement which has now taken place will endure; and for this purpose we require to take a careful view of the probabilities as to the nature of the injury which she received some months ago.

I have already mentioned that Mr. Holthouse could find no mark of the blow on the left side of the head, and no unevenness of the bone; and it is therefore certain that there was no serious scalp wound, and no fracture of the skull. She probably sustained a severe bruise on the part, and the main shock would probably be directed (as in *contrecoup*) towards the base of the brain. This is a kind of shock that has become rather common of late years, owing to railway collisions; and it is instructive to note that the full effects are often only slowly produced. Provided, indeed, that there is no coarse lesion of structure, such as the rupture of a bloodvessel of considerable size, or a rent of nervous substance, this slow development of results is more probable than not.

There is at present little or no positive evidence as to the anatomical changes which take place in such instances; indeed, the most singular fact is that the patients, after passing through a phase of really serious illness, for the most part ultimately recover. That the mischief done has been real, however, and not merely imaginary, is proved by the fact that the symptoms occasionally proceed to the development of a clearly organic paralysis, and sometimes even to a fatal softening of the brain or spinal cord.

In the present instance, I am inclined to hope that the girl may shake herself free from her attack altogether, although it is discouraging to observe that the palpebral spasm is by no means cured even yet, and she has occasional attacks of pain at night. But as regards the future, it will be necessary to speak with much reserve. The neuralgic state, when once it has been established for so long a time in any particular nerve, is apt, even after apparent cure, to return to the same nerve repeatedly in after life. As our present patient seems to be a very sober and respectable young woman, she will escape many of the influences which might tend to re-establish her neuralgia. Still, if she marries and becomes pregnant she is likely enough to suffer severely during gestation. Whether the tendency to neuralgia will continue beyond the climacteric (should she live so long) must remain very doubtful; but if she is right in her belief that her family generally—with the one exception of her mother—have been quite free from all nervous diseases, it is quite possible that she may lose all tendency to the complaint at that epoch in her life. At present the symptom of worst augury is the persistence of the palpebral spasm. It looks as if the nucleus of the portio dura—which, as you know, is very closely united (in the medulla oblongata) with the nucleus of the fifth—had received a considerable concussion and a somewhat lasting injury.

Traumatic neuralgias are of very different prognosis, according as the injury has been inflicted on the branches or the nucleus of the nerve. (I am putting aside all those cases in which the injury to the nerve is produced by the growth of a tumour or the spread of some other morbid process which, beginning in non-nervous tissues, comes more and more to involve a nerve by means of pressure or of ulcerative processes.) A bruise or a cutting wound, which injures a peripheral nerve, may set up a neuralgia of very obstinate character, especially if the patient be neurotically predisposed; but it is nothing like so apt to produce a lasting tendency to easily provoked neuralgia, as is a material shock inflicted upon that portion of the central nervous system in which the nerve is implanted. Were there time, I could tell you a terrible history

of a gentleman who consulted me some years ago, and in whom the whole mischief originated in a violent blow on the head with a book which a spiteful usher gave him at school, because he—a nervous lad—made some stumble in his lesson. The migraine which was immediately set up by this physical shock was complicated later in life, and under the pressure of unfortunate external circumstances, by epilepsy and facial spasm; and I have no doubt at all that a serious injury was inflicted, *par contrecoup*, upon the medulla oblongata by the blow received in youth—an injury which set up continuous organic changes.

As regards the treatment, also, which appeared to be successful in our case, I have to remark that it is in some respects peculiar. In my lecture upon sciatica I informed you that in the general way, except for malarious cases, quinine was by no means a frequently successful remedy in neuralgia. There is one rather decided exception, in the case of neuralgias which affect only or chiefly the ophthalmic division of the fifth nerve. This is a purely empiric observation, unexplained by any knowledge that we at present possess; but it has been made independently by several of the highest authorities. Failing, then, to make the desired impression by the more usual remedies, such as hypodermic morphia, chloride of ammonium, and the external application of belladonna, we tried the effect of five-grain doses of quinine. I cannot absolutely tell you that the cure was not partly spontaneous, but there could be no doubt that a very rapid subsidence of the pain took place almost immediately after the quinine was begun. The uniformly good effect of *blistering* in this case is nothing peculiar, for, as I told you, this is one of the most generally useful remedies in neuralgias of every kind and situation. It is not every lady, however, who will submit to have her face repeatedly blistered.

Let me conclude by drawing another contrast between facial neuralgia and sciatica. The latter, as I told you, is pre-eminently a disease of middle and advanced life; it is excessively rare at the age of twenty-one, and when it occurs so early is always provoked by very special causes, which I mentioned to you in my lecture on that disease. Facial neuralgia, it is true, also sometimes commences quite in advanced life—and a terribly severe and intractable disease it then is apt to prove. But the great majority of cases of the commoner type of facial neuralgia begin between fifteen and thirty, and very often (as I have mentioned) they commence in the shape of migraine or of clavus hystericus. It is seldom that facial neuralgia, in a young girl, takes so decided and localised a form without a long preliminary period of migraine; and I have little doubt that the *traumatic* origin of the present case was the reason for this peculiarity. Let me say, finally, that if the case had continued intractable much longer, it was my intention to have applied the constant current from some eight or ten cells of Weiss's instrument.

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Composition and Quality of the Metropolitan Waters in July, 1874.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

| Names of Water Companies. | Total Solid Matter per Gallon. | Oxygen required by Organic Matter, &c. | Nitrogen. | | Hardness. | |
|---|---|---|---|---|---|---|
| | | | As Nitrates &c. | As Ammonia. | Before Boiling. | After Boiling. |
| *Thames Water Companies.* | Grains. | Grains. | Grains. | Grains. | Degs. | Degs. |
| Grand Junction | 16·50 | 0·073 | 0·098 | 0·002 | 13·0 | 3·4 |
| West Middlesex | 16·37 | 0·038 | 0·099 | 0·001 | 13·0 | 3·3 |
| Southwark & Vauxhall | 17·00 | 0·066 | 0·086 | 0·002 | 13·5 | 3·3 |
| Chelsea | 16·63 | 0·081 | 0·115 | 0·001 | 13·0 | 3·1 |
| Lambeth | 17·17 | 0·061 | 0·110 | 0·001 | 13·8 | 3·6 |
| *Other Companies.* | | | | | | |
| Kent | 28·17 | 0·001 | 2·061 | 0·000 | 21·1 | 5·7 |
| New River | 16·80 | 0·024 | 0·091 | 0·000 | 13·8 | 3·6 |
| East London | 16·77 | 0·046 | 0·123 | 0·001 | 13·8 | 3·8 |

*Note.*—The amount of oxygen required to oxidise the organic matters nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in those of the Grand Junction, the Southwark and Vauxhall, the Chelsea, and the Lambeth Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 125,689,091 gallons; and the number of houses supplied was 510,499. This is at the rate of 36·9 gallons per head of the population daily.

## ORIGINAL COMMUNICATIONS.

# AN ACCOUNT OF SOME CATARACT OPERATIONS.

By C. S. JEAFFRESON, F.R.C.S.E.,
Surgeon to the Eye Infirmary, Newcastle-upon Tyne.

The cases which I am about to report comprise the whole of the cataract cases upon which I have operated during the past year (1873) at the Eye Infirmary, Newcastle-upon-Tyne. They number in all thirty-five cases. This will form the third series which will have been published in various medical papers.

Of the thirty-five cases enumerated the following classification may be made, both as regards the nature of the cataracts and the operations adopted:—

| | | | |
|---|---|---|---|
| Senile | Hard nuclear cataracts .. 18 | Flap extraction | .. 12 |
| | | Von Graefe's | .. .. 4 |
| | | Warlomont's | .. .. 2 |
| | Soft nuclear cataracts .. 2 | Needle operations | .. 2 |
| Congenital cataracts .. .. .. 5 | | Needle operations. | |
| Traumatic cataracts .. .. .. 10 | | Suction operations. | |

As a comprehensive statement of the cases is given below, it will be unnecessary for me to make any lengthened remarks upon them.

The traumatic cases were mostly treated as out-patients, after a day or two of confinement to the hospital or to their own homes; and I find as a rule that the cases do very well under these circumstances, if the patients are temperate and careful persons. Here I may state that these are by no means all the cases of traumatic cataract which presented themselves at the Eye Infirmary; they are, so to speak, selected cases, for, looking at the somewhat doubtful good which is practically obtained, even after a most successful operation for traumatic cataract, I rarely press the matter, unless a swollen lens is producing pain or is threatening a destructive inflammation. When I speak of the doubtful good, I allude to the inconvenience which arises in the most perfect cases from the difference in the refraction of the two eyes—a difference which it is impossible to equalise with glasses, and which nature not unfrequently resents by giving a cast to the injured eye, which disturbs its harmonious action with its fellow, and renders it useless for binocular vision.

In a large proportion of traumatic cataracts (if no untoward circumstance arise, such as I have mentioned above) the best results are obtained by allowing the lens to undergo absorption, and then performing any secondary operation that may be necessary upon the opaque capsule. If a primary operation is determined upon, it should be performed before severe pain and acute inflammation are thoroughly established, for in these cases interference with the eye, although imperative, is badly borne, and there are usually warning signs before the more acute symptoms are established.

I do not wish again to reopen the question of the best operation for senile cataract. In eyes of a suitable form and otherwise healthy I still continue to perform flap extraction, with or without the administration of anæsthetics, according to the patient's desire or his power of self-control. Unquestionably a more simple operation, and one of easier and safer performance in the large mass of cases, is the operation known as Warlomont's when performed in the upper segment of the cornea, and Liebreich's when performed in the lower. I greatly fear, however, that if a large number of cases were examined, the optical results would be found to be much inferior to the results of flap extraction or Graefe's operation, owing to the astigmatism which must almost of necessity result, and the troublesome anterior synechiæ which frequently follow this form of operation. And here a question arises, so to speak, in the ethics of cataract operation which has never been, so far as I know, fully discussed. What are we to look for in the result of cataract operations—the greatest number of eyes saved, or the best optical results? because in accordance with the view we take of this question so will our selection of the operation be guided. Are we justified (the case being otherwise a suitable one) in submitting a patient to an operation which, though having a slightly higher average of failures, gives a much higher average of optical results? In answering this question we should, in my opinion, be guided by two circumstances—the patient's position and degree of education, or

in other words the necessity which exists in his case for a high visual power; and the fact or not of his having a second eye which, though cataractous, is sound in other respects.

The demand for great acuity of vision is not necessary in many occupations, such as labourers, porters, agriculturists, and the like, and for this class of cases the simplest operation is the one to be adopted, there being no other cause to contra-indicate it; for persons who require a high degree of acuity, and who are rendered unhappy and comparatively useless without it, such as the higher kinds of artisans, literary and professional persons, the operation should be performed which gives the very best optical results, regardless of the fact of its having a higher rate by 2 or 3 per cent. of failures, especially, as I before said, if the patient has a second eye which is sound, and upon which we can fall back in the case of failure.

These, then, are the points which guide one in influencing a patient for or against one or the other operation. If both eyes are cataractous but otherwise healthy, their form being suitable, and the patient's circumstances such as require the most perfect sight that can be obtained, I strongly recommend flap extraction to be performed on the one eye. If both eyes are cataractous, and the patient's circumstances are such as do not require the most perfect visual power, I recommend Warlomont's or Von Graefe's operation. If the eye, however, seems in other respects suitable for flap extraction, I explain the slightly increased risk, and leave it to the patient to decide, and in nine cases out of ten they prefer the operation which will give the best optical results regardless of the risk. If the patient has only one eye to be operated upon, I do not recommend flap extraction.

I know that many will meet my arguments by stating that it has not yet been proved that the results of flap extraction, optically speaking, are more favourable than the results obtainable by Von Graefe's operation, and many could no doubt produce ably compiled statistics to show that it was not so. There is, I think, too much want of uniformity in reporting ophthalmic cases to make statistics very valuable in this department of surgery. My own impression, after seeing a considerable number of cases operated upon by different operators according to different methods, is, that the optical results of a good flap extraction (to say nothing of the cosmetic effect) far exceed the results of any other form of operation. That this impression is shared by other ophthalmic surgeons, I can have no doubt, when I see the efforts that are being made to produce the same results by somewhat modifying the form of incision, as in Warlomont's, Liebreich's, and Taylor's operation.

The cases of congenital cataract call for but few remarks. In Case 22, the result of which was sufficiently perfect to enable the child to thread the finest needle, the absorption proceeded so rapidly as to leave no vestiges of the lens or capsule at the end of one month. In Case 24 the absorption was less rapid, and two operations were necessary, the second having for its object the removal of a piece of opaque capsule which partially occupied the area of the pupil. Case 25 was of unusual interest. The cataracts were of a pearly white, and had a glistening look, the opacity seeming to be chiefly towards the posterior portion of the lens, and from the appearance I suspected that there might be some calcareous degeneration of its substance. Absorption was slow in the right eye (which was operated upon first). No less than three operations were performed with the needle, and finally at a fourth some opaque capsule was withdrawn with the canula forceps. The result upon this eye was all that could be desired, and the mother states that the child's sight is perfect. It was now determined to operate upon the left eye, and I proceeded as before—at the first operation breaking up slightly the anterior portion of the lens occupying the centre of the pupil. One month after this a second operation was performed, as absorption was progressing very slowly. This time the deeper portions of the lens were broken up with the needle. This gave exit to a number of fine calcareous particles which dispersed themselves over the anterior chamber. An attempt was made to remove them, and some were successfully extracted, but many of them became impacted at the angle of the junction of the iris and limbus corneæ, and the aqueous being lost, it was found impossible to remove them all. The next day but little disturbance was present, and I was in hopes the fragments might dissolve and disappear, but on the third day inflammatory symptoms supervened, and on the sixth there was slight hypopion. A free exit was given to the matter, and gradually the inflammation has subsided. The pupil, however, remains blocked up with lymph. Later on I propose making an artificial pupil by Wecker's method of iridotomy.

On more than one occasion I have removed congenital cataracts which had undergone calcareous degeneration. In these the calcareous matter was in one mass, and was removed through a small linear incision. I never before met with a case in which the calcareous particles were disseminated through the substance of the lens, and were liberated by the breaking down of the intervening soft matter.

### Senile Cataracts.

*Case* 1.—Female, aged 59. Flap operation. Result: A movable circular pupil. $V = \frac{1}{1}$ with $+2\frac{1}{2}$.

*Case* 2.—Female, aged 54. Flap operation. Result: Circular pupil. $V = \frac{1}{2}$ with $+2\frac{1}{2}$.

*Case* 3.—Female, aged 45. Flap operation. Result: A movable circular pupil. $V = \frac{1}{4}$ with $+3$.

*Case* 4.—Male, aged 62. Flap operation. Result: Pupil crescent-shaped. $V = \frac{1}{12}$.

*Case* 5.—Female, aged 60. Flap operation. Result: Clear central pupil. $V = \frac{1}{2}$.

*Case* 6.—Female, aged 70. Flap operation. Result: $V = \frac{0}{0}$. (No chloroform was administered; yet violent sickness and suppuration in twenty-four hours. The operation was completed without mishap).

*Case* 7.—Male, aged 60. Flap operation. Result: $V = \frac{1}{3}$ with $+3$.

*Case* 8.—Female, aged 64. Flap operation. Result: $V = \frac{1}{2}$ with $+2\frac{1}{2}$. Flap soundly healed on the seventh day.

*Case* 9.—Male, aged 70. Flap operation. Result: $V = \frac{1}{3}$ with $+2$.

*Case* 10.—Female, aged 73. Flap operation. Result: $V = \frac{1}{3}$ with $+3$. Central pupil.

*Case* 11.—Female, aged 65. Flap operation. Result: A circular pupil. $V = \frac{1}{8}$ with $+3$.

*Case* 12.—Male, aged 70. Flap operation. Result: $V = \frac{1}{2}$ with $+2\frac{1}{2}$.

*Case* 13.—Male, aged 50. Modified linear extraction (Von Graefe's operation). Result: $V = \frac{1}{5}$ with $+2\frac{1}{2}$.

*Case* 14.—Female, aged 60. Warlomont's operation. Result: $V = \frac{1}{7}$. Pupil circular. She would probably obtain a much higher degree of sight, but she went to another part of the country before a satisfactory examination could be made.

*Case* 15.—Male, aged 60. Modified linear extraction. Result: $V = \frac{1}{6}$ with $+2\frac{1}{2}$.

*Case* 16.—Female, aged 73. Warlomont's operation. Result: $V = \frac{1}{3}$ with $+3$. Pupil somewhat oval transversely.

*Case* 17.—Male, aged 45. Von Graefe's modified linear extraction. Scoop used. Result: $V = \frac{1}{3}$ with $+2\frac{1}{2}$.

*Case* 18.—Male, aged 60. Von Graefe's modified linear extraction. Result: $V = \frac{1}{5}$ with $+2\frac{1}{2}$.

*Case* 19.—Male, aged 50. Needle operation. Result: V = $\frac{0}{0}$. Violent irido-choroiditis set in.

*Case* 20.—Female, aged 48. Needle operation. Result: V = (?). Is progressing satisfactorily, but slowly. Vision cannot be finally tested at present.

Congenital Cataracts.

*Case* 21.—Female, aged 8 months. Needle operation. Result: A clear central pupil. Vision perfect. Two operations were required.

*Case* 22.—Female, aged 8 years. Right eye. Needle operation. Result: A clear central pupil. Vision perfect.(a) One operation only.

*Case* 23.—Female, aged 8 years. Left eye. Needle operation. Result: A clear central pupil.(a) Vision perfect.

*Case* 24.—Male, aged 3 years. Needle operation. Result: A clear central pupil. Vision perfect. Required several operations and renewal of opaque capsule.

*Case* 25.—Male, aged 3 years. Needle operation. Iritis blocked up the pupil. (Left eye of above: Calcareous matter in lens. Good eye for artificial pupil).

Traumatic Cataracts.

*Case* 26.—Male, aged 52. Suction operation. Result: A circular pupil. V = $\frac{1}{6}$. Struck by a stone six months previously. No wound. Cataract the result of succussion. Some capsule remained; but no further operation considered advisable.

*Case* 27.—Male, aged 17. Suction operation. Result: Slight anterior synechia. V = $\frac{1}{10}$. Cornea was wounded by a piece of metal. Some irregular astigmatism after healing.

*Case* 28.—Male, aged 54. Suction and iridectomy. Result: V = $\frac{1}{5}$ with + $2\frac{1}{2}$.

*Case* 29.—Male, aged 47. Suction and iridectomy. Result: Good sight when last seen.

*Case* 30.—Female, aged 17. Suction and scoop. Result: V = $\frac{1}{3}$ with + $3\frac{1}{4}$.

*Case* 31.—Male, aged 29. Suction and iridectomy. Result: Good vision when last seen.

*Case* 32.—Male, aged 10. Suction operation. Result: V = $\frac{1}{10}$ with + 3.

*Case* 33.—Male, aged 30. Linear extraction. Result: V = $\frac{1}{12}$ with + 3. (Details of this case are given in the text.)

*Case* 34.—Male, aged 29. Suction operation. Result: Irido-choroiditis. V = $\frac{0}{0}$.

*Case* 35.—Male, aged 16. Suction operation. Result: Promises to get fair sight.

## ENTERIC FEVER.

By Surgeon-Major FRANCIS R. HOGG, M.D.,
Fellow of the Royal Medical and Chirurgical, and of other Societies.

Gunner Charles A., aged 20, a black-haired, high-coloured, fairly-developed Cockney waiter; out of three years' service has spent the last in India. At the age of twelve was laid up three months with scarlet fever; otherwise healthy. Only three times in hospital last year, for a total period of fifteen days' with ague.

On Monday, February 23, did not feel very well; took a cup of tea in bed. Arose at 6.30, went to stables, then to parade, where he felt fever coming on as he was galloping. Whilst dismounting at the word of command all but fainting; he fancied his bowels twisted. At 10.30 sent off to hospital; there treated, the symptoms pointing to ague of daily acquaintance. Diaphoretic mixture given, cold applied to head, a Dover's powder ordered at night, to be followed by quinine in the morning, when he appeared no better. Pain in the back about the sacrum, slight ochrey diarrhœa, tremulous dirty tongue, cold wrist, slow feeble pulse, gurgling in right iliac fossa, nausea, pain over the abdomen generally, also the fact of such complaint being about,—all led to the diagnosis of enteric fever.

February 25.—Is at once removed to a separate ward, and particular directions given about the disinfection of excreta. A medical subordinate in attendance; also a European nurse, as the patient loathes the native, and is ignorant of the language; also certain foods are to be sent for from the Artillery mess as required. Four leeches applied to abdomen, a dose of castor oil given; and, remembering the history of scarlet fever, I leeched his hot throbbing temples, shaved his head, and had cold lotions constantly applied; low milk diet.

26th.—Bad night; tongue creamy; skin dry; pulse 90; temperature, 100° morning, 102° at night, 101° last evening; four watery evacuations; urine turbid, 1020; headache and lumbar pain both increased. Diaphoretics; abdominal poultices; chloral gr. xx.

27th.—Worse; three evacuations; tongue drier; pulse 120; respiration laboured; temperature 100·6° to 103·2°; thirst increasing. Barley-water and lime-juice.

28th.—Worse; bad night; dilated pupils; olive flush of face; five evacuations; flatulent; tongue quivering; epistaxis; constant bilious vomiting; increased gurgling. Dilute nitro-hydrochloric acid in ℥xv. doses yesterday and to-day, changed for bromide of potassium in scruple doses, changed again for chloral; temperature 101° to 104°, and late at night 105°; slight meteorism.

March 1.—A cool morning—temperature of the ward 68°. No better; seventh day of treatment; delirious; drowsy; bed-clothes-picking; five dark slimy motions; tongue drier and more coated; skin harsh, pungent; pulse 94, feeble; loud râles heard over left lung; temperature 103·4° to 104·2°; urine more turbid, but to my surprise free from albumen; sordes; epistaxis; vomiting of undigested food, fortunately stopped by a scruple of bicarbonate of potash in hot water, when effervescents containing prussic acid did no good; opiate suppositories. Turpentine to chest; also poultices containing opium, aconite, and belladonna bandaged over the bowels; four ounces of port wine and four ounces of brandy added to egg-flip; specific gravity and quality of the milk to be carefully watched.

2nd.—No better; increasing sordes; vomiting if he turns on right side; both knees painful; spleen tender; every symptom unsatisfactory. After the body was sponged he broke out into profuse perspiration. Temperature 100·4° to 101°.

3rd.—Slept better; looks drowsy; tongue brown and dry; râles continue; pulse 68 morning, 70 at night; temperature 100°; agonising sciatica. Noticed a few rose-coloured pimples, subsiding on pressure, on the chest. Great debility; craving for food. Iodine applied to chest; bowels still packed; cold applied to head; soothing liniments over the buttock. Milk-diet, eggs, Madeira; careful nursing; liquid food; the repair of waste, anything to gain time, our tactics; no medicine.

4th.—Tenth day of treatment. Bowels quiet; pulse 62, feeble; heart's action extremely weak; no medicine; brandy three ounces; stimulating liniments over the spine. Attendants warned that the patient may suddenly die if raised in bed.

5th.—Temperature fell to 99° to 100° yesterday; reads to-day 97·2° to 100° in evening; the bowels act, the evacuations brown; urine always turbid. Quinine five grains; milk, eggs, cocoa, three ounces of brandy. Pulse 50 to 64 in evening.

6th.—Pulse 42 to 68; temperature 97° to 98°; tongue tipped with red, yellow centre, deeply fissured; râles subsiding; urine 1016, clearer; lies low, very feeble. Chlorate of potash, with tinct. ferri sesquichlor. in small doses; also a teaspoonful of cod-liver oil, brandy four ounces. Sinapisms applied to præcordial region.

7th.—Unusual weakness of the cardiac systole, left radial pulse inclined to intermit. Doubtless there is a clot which, acting as a plug, may cause sudden death, else paralysis with aphasia.

Condensing notes, it may be stated that the temperature afterwards became steady, sometimes 96° in the morning, occasionally 99° in the evening; face either flushed or sallow; slept well; evacuations gradually became solid; meteoric tendency subsided; urine continued turbid; sordes cleared off; tongue cleaned; the pulse lost its intermittent character, but in the morning registered from 42 to 48, the evening from 56 to 64, gradually improving until March 10, when the patient

(a) The child had not learnt to read, but V was quite equal to $\frac{1}{1}$

sits up, and afterwards the morning range as well as the evening became satisfactory—for instance, 80. Nitro-hydrochloric acid and chiretta, quinine in five-grain doses occasionally, chlorate of potash, were the medicines employed.

About March 10 he had chicken-broth, cocoa, eggs, two glasses of Madeira; a few days after, fish diet, and a pint of beer the last thing at night, when he slept splendidly.

18th.—After twenty-four days' treatment, progressing favourably, though the tongue continues dry, bowels gently open, slight pain over the abdomen of cutting character; is up several hours playing cards or reading; no medicine, but the bowels are well bandaged, and the patient is very careful in all things.

21st.—Enjoys a drive.

23rd.—Proceeds by train to Umballa, whence, on a stretcher, he will be conveyed to Kussowlee, a hill station where boys in a short time are transformed into splendid men. The effect is so astounding that medical officers fail to recognise in the lusty soldier the weedy lad sent there last year. If this patient has a good helmet and a jacket loose about the neck, keeps temperate, and avoids syphilis, his future may be long and prosperous. Failing in any of the above conditions, the heart will fail also. Cool weather, a good medical sub., a kind comrade, good food, and—last, but not least—the celebrated Madeira, pulled this case through. Some time or other I hope to write on the cause, prevention, and cure of enteric fever, the special disease of India annually attacking the young new-comers with increasing malignancy; to-day I would only concur in the opinion that the disease is due to climate, may originate spontaneously, and, though encouraged by bad water or fæcal exhalations, these are secondary auxiliaries of pestilence. One case starts others. Children are not specially affected; and menstruation, clothing, and in-door life protect women, who, however, after menorrhagia or hæmorrhagic labours are susceptible. The congested liver cannot neutralise the poison nor arrest putrefaction; the blood becomes poisoned too; the weak points, whether in heart, lung, brain, or kidney, go to the wall; and the delicate vascular glands of the lower portion of the ileum run on to gangrene.

The same poison may induce dysentery or originate hepatic abscess, and curiously enough rheumatic fever. Out of fourteen cases not long ago treated, twelve were gunners to two drivers, nine were fair to five dark, nine came from a barrack with single verandah to five from double verandahs; lads working in forges specially liable. In hot weather cases die with rapidity compared to the cool season, when the most desperate may recover. When one case occurs, isolate him and prepare for the worst. Leeches to the bowels, mercurial ointment, castor oil, quinine, ipecacuanha, poultices and blisters for the bowels, ice for the shaved head, good nurse, good milk, good wine, figure in the list of remedies. Quinine may do harm; nitro-hydrochloric acid is very valuable sometimes, so is acetate of lead. Some medical officers are in favour of cold affusion, to which, I believe, Dr. Murchison objects, and his opinion is the most desirable. Dr. Harley has elaborately pointed out the identity of enteric with scarlet fever; why not include erysipelas, diphtheria, and puerperal fever? Still there must be a great difference, otherwise all the children would be down with scarlet fever, which as yet is unknown at Meerut, though lately prevalent at Umballa. However, as said before, the intention is to write at length on enteric fever if no epidemic here upsets all arrangements.

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Madame Christine Nilsson.—This distinguished artist has handed over a cheque for £942 to the treasurer of the Training School and Home for Nurses in connexion with the Westminster Hospital. In September next she will sing at Norwich on behalf of the Jenny Lind Infirmary.

Insanity and Intemperance.—The Commissioners in Lunacy for Scotland report that in the year 1873 the causes of insanity were specified on 615 admissions of patients into lunatic asylums, and that in 149 of these cases, or nearly a fourth, the admission papers stated that the insanity resulted from intemperance. The Commissioners add:—"It is possible that prolonged compulsory abstinence from alcoholic liquors may restore to habitual drunkards the power of self-control, and enable them to resist the craving to which, when at liberty, they succumb; but our own experience does not give us much reason to expect this result."

# REPORTS OF HOSPITAL PRACTICE
## IN
# MEDICINE AND SURGERY.

## LONDON HOSPITAL.

### A SERIES OF
### CASES ILLUSTRATIVE OF CEREBRAL PATHOLOGY:
### CASES OF INTRACRANIAL TUMOUR.

(Under the care of Dr. HUGHLINGS-JACKSON.)

(*Continued from page* 235, *vol.* i. 1874.)

*Case* 13.—*Syphilitic Tumour of the Middle Lobe of the Cerebellum.*

In this case the diagnosis of intracranial syphilis was made on the patient's first admission into the hospital by the fact that there were the remains of bygone iritis. (There was no history of primary syphilis.) There was no possibility of making that diagnosis except by such direct evidence. In some cases we can make the diagnosis of intracranial syphilis by indirect evidence. In some cases the random arrangement and succession of the *nervous symptoms* justify that diagnosis. But this man had only the symptoms which an adventitious product *of any kind* will cause. Indeed, I was not absolutely certain that the intracranial disease was syphilitic. I was the less certain the nearer the patient's death, because his nervous symptoms were of exactly the kind producible by a glioma or other limited adventitious product, and not of the kind most often produced by syphilis. It is true that syphilis does sometimes, as it did here, imitate, so to speak, a glioma. There may be but one distinct syphilitic mass, and not a random affection of parts here and there, as there usually is in syphilis. As the patient had had earache there was the possibility (or rather, I should say, the improbability) of cerebral or cerebellar abscess to be considered. Had there been no iritis the diagnosis of syphilis *could not* have been made in this case.

The diagnosis of the position of the disease could not have been entered upon until the reeling began. But, as I say in the report, the expression "reeling" is an exaggeration; the difficulty of walking was trifling. I did not venture on a diagnosis of the *position* of the tumour. A *marked reeling*, however, is very characteristic of disease of the cerebellum. I believe that it is the result of paresis of the muscles of the spine.

The increase of fluid in the lateral ventricles of the cerebrum was probably the result of pressure on the veins of Galen. There was a mechanically caused dropsy of the ventricles, analogous to ascites, from tumour compressing the portal vein. There was, however, not an excessive quantity of fluid, as there is occasionally in the lateral ventricles of children who die from the effects of tumour of the middle lobe of the cerebellum.

A man thirty-four years of age was admitted on June 17, 1872, and came under my care on August 5, 1872. This was his second admission.

*History.*—He had never had any illness before the one of which he died, except that he had once had gonorrhœa (no sore throat, no rash), that he had had earache of the left ear (*vide infra*), and that he had had pains in his limbs. In November, 1871, he was taken suddenly with pain in the left ear, and he felt so stupid that he could not stand up by himself. (Possibly these symptoms were owing to disturbance of the semicircular canals.) He tried to go on with his work, but had to give up, and went to the infirmary. He got worse, suffered severe pain, nearly always at the back of the head, had constant vomiting and retching, and his sight began to fail. He then left the hospital and came by sea (from the North of England) to London, and was for the first time admitted as an in-patient of the London Hospital. He had then double optic neuritis. There were pigment stains on the capsules of the lenses, and from this the inference of past iritis was drawn, and the diagnosis of intracranial syphilis was made. There was no defect of sight. He went out much better, but soon got worse again, and was readmitted June 17, 1872. He had the same symptoms as before—pain in the head, vomiting,—and there was a later stage of the neuritis. He was not thin; he gained weight in the hospital. On October 29 he weighed 129 pounds, and on January 3 following, 140 lbs. He did not *look ill*. Had I not known that he had double optic neuritis, I should

have thought he was malingering, and even knowing—being certain that he had that nervous symptom—I *did* think that he exaggerated his condition in order to stay in the hospital. It is to be observed that to an ordinary observer there was no defect of sight; he could, however, read only No. 3½ of Snellen—(he did so four days before his death). It is to be particularly noted also that there was no deafness; each ear was carefully tested. Again, six weeks before his death, his senses of smell and taste were carefully tested, and were believed to be good. The signs of past iritis, of course, persisted. The pain in the head was severe; the vomiting frequently urgent. He kept his bed mostly until his death, because he could there easily adjust the ice-bag for the relief of his pain. He had only two new symptoms before he died. In October he had delusions—*e.g.*, he believed that he had been out to the "barrack yard," whereas he had not left the hospital. This state of things soon passed off, and throughout his illness, with this exception, his mind was clear. The other additional symptom was only noticed about a fortnight before his death. He walked badly. There was a slight *reel;* it was exceedingly slight. He walked with his legs a little apart, and swayed a trifle now and then. In fact, this description is almost an exaggeration, but it is important to mention the slight difficulty, as we found disease of the cerebellum.

The patient died unexpectedly on January 22. As remarked, he suffered all along from severe pain in his head. Besides the iodide and bromide, I had tried blisters, a seton, doses of chloral, and a few days before his death, as the pain was intense, I ordered a few leeches. This last application was simply to relieve the intense pain, and is particularly mentioned to show that his pain, always bad, was unusually bad shortly before his death. The morning of his death he had not only the pain, but he vomited incessantly. He would not let the nurse leave him. At ten o'clock he suddenly raised himself up; his head fell on the nurse's arm, and then he fell back dead.

*Autopsy.*—There was no disease anywhere except in the encephalon and in the liver. (The testes, unfortunately, were not examined.) In the liver there was near the outer edge of the right lobe a gummatous tumour the size of a hazel-nut. The cerebrum was quite healthy, except that *the convolutions were much flattened, and the lateral ventricles distended with fluid.* On the posterior inferior surface of the left lobe of the cerebellum, glueing the cerebellum and its pia mater to the dura mater, were one or two small masses, none larger than a split pea. The principal disease was a tumour about the size of a hazel-nut, evidently syphilitic, in the posterior and inferior part of the middle lobe of the cerebellum.

## ST. THOMAS'S HOSPITAL.

### DOUBLE CANCER OF MALE BREAST—REMOVAL OF BOTH BREASTS—RECOVERY.

(Under the care of Mr. WAGSTAFFE.)

The extreme rarity of the occurrence of cancer in the male breast makes the following case one of very great interest. A peculiar feature is that both breasts were affected, and we know of no similar case being on record:—

W. P., aged 61, well developed and well nourished, a blacksmith by trade, was admitted into St. Thomas's Hospital on March 20, under the care of Mr. Wagstaffe, with well-marked scirrhus of both breasts. Eighteen months before he had noticed a lump in the left breast; this had grown slowly, but without pain, until August last, when it began to be slightly painful; for the last month it had been troublesome, worrying the man with shooting pains, and preventing him from using his left arm. The lump in the right breast had been noticed three months, and was comparatively painless. When sent up for examination, there was a lump in the left breast, involving the skin to a certain extent—that is to say, the skin was red, thin, and adherent. Below and to the outer side of the nipple the growth projected as a smooth, hard, semi-elastic, oval mass, about two inches in its transverse diameter, somewhat nodulated towards the nipple, which was retracted. In the right breast nothing could be seen, but a small scirrhous nodule could be distinctly felt under the nipple; it was not, however, well defined. In neither case was the surface broken, nor was there any discharge from the nipple. There was some doubt about the condition of the axillary glands on the left side, but no distinct enlargement could be made out.

March 25.—Mr. Wagstaffe removed both breasts by semilunar incisions. The wounds were freely sponged out with chloride of zinc solution (forty grains to the ounce) and then dressed with lint soaked in carbolised oil. Silver wire sutures were used, and torsion to a few small bleeding points.

26th.—Temperature 102·4°; slight redness of wound of right breast.

27th.—Temperature 100·6°; sutures removed from right breast.

28th.—Temperature 99·6°.

29th.—Temperature 99·8°; left breast slightly red; sutures removed.

30th.—Temperature 99°. Wounds closed with strapping. After this the wounds closed rapidly. On April 29 he went away to the seaside without any induration remaining in the wounds, which had healed, or in either axilla. When last seen (May 22), there was no evidence of return of the disease.

*Remarks.*—It is surprising that cancer does not appear more frequently in the male breast, if cancer by preference attacks organs and tissues undeveloped and retrograde; but the number of cases recorded is peculiarly small. It is more surprising that in this case both breasts have been affected without any evidence of universal dissemination or constitutional disease, for no trace is to be found of cancer in other parts; not even lymphatic glands seem to be affected. On searching carefully into the family history, there seems to be no indication of any members of the family having been affected with cancer; and on inquiring into the possibility of local causation, there seems to be very little to help one there, for though he has used his chest a good deal for pressing on a centre-bit, the breasts have not been the parts most pressed upon, but the sternum. Friction of the breast by his shirt has never been enough to cause obvious irritation of the breast. The naked-eye appearances and microscopic examination of the growths show them to be typical scirrhus.

## LEEDS GENERAL INFIRMARY.

### DEATH FROM CHLOROFORM.

(Under the care of Mr. JESSOP.
[Reported by Mr. Tickles.]

George W., aged 48, a strong, healthy-looking man, by occupation a joiner, who was described as a drunkard and a passionate man, was admitted into the Leeds General Infirmary on July 15, 1874, suffering from destructive inflammation of the middle-joint of the third finger of the right hand, caused by his striking a comrade in a quarrel.

On Thursday, July 16, he was brought into the operating theatre for the purpose of having his finger amputated, and at his own request chloroform was administered. The chloroform was administered by the House-Physician in the usual way—on a piece of lint, and from a bottle with a drop cork. He took it rather badly, struggled more than is usual, and was fully under the influence of chloroform, not having taken more than two fluid drachms, when he gave two or three snorts, suddenly became livid in the face, his respiration stopped, and his pulse became faint at the wrist. Artificial respiration was at once commenced by the Sylvester method, and was continued for an hour, together with cold affusion to the face and chest, galvanism to the heart and diaphragm, and ammonia to the nostrils. The heart was heard to beat faintly at the end of about twenty minutes; after that time no sound could be detected, and no attempt was at any time made by the patient at voluntary respiration.

Post-mortem examination was made twenty-two hours after death. The brain was found healthy. The lungs were somewhat congested. The heart was flabby and slightly enlarged, weighing twelve ounces and a half; both ventricles contained a little fluid blood; valves healthy. The abdominal organs were generally congested, otherwise healthy. The stomach was perfectly empty

This is the first death which has occurred during the administration of chloroform since the opening of the new Infirmary in 1869.

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The deaths in the eight principal towns of Scotland for the week ending the 25th ult. were 643. For the corresponding week of 1873 they were 629.

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# Medical Times and Gazette.

SATURDAY, AUGUST 1, 1874.


## BURIAL AND NO BURIAL.

In a late article referring to Bishop Wordsworth's assault on the proposal to substitute "Cremation" for "Inhumation," we took occasion to say that the advocates of burial, amongst whom we rank ourselves, should, in all candour, admit and endeavour to remedy the evils of the system as at present in use. We are quite sensible of the enormous change for the better, in the substitution of the suburban cemetery for the town churchyard—the open, cheerful flower-garden for the noisome churchyard where weeds scarcely found time to grow; but the suburban cemeteries are prone to evils which will increase as time goes on, but which may be prevented if the public will accept a humble, common-place view of the true objects of burial.

There are two main theories, one of which has influenced humanity at large, and the other more especially the Christian community. One is the determination to evade the common fate of humanity, to resist the sentence of "dust to dust," to refuse to mingle one's remains with those of the vulgar. To this very natural feeling Christianity has added the desire that the mortal body shall continue undisturbed in consecrated ground until the Resurrection Day. Under the combined influence of these—very natural and laudable—feelings, they who make provision for the disposal of their own remains, or of their friends', forgetting the instability of all human affairs, take measures which defeat the very object in view. If it be an indignity to have one's bones lying unburied, then surely those persons are to be envied who are buried deep in nameless graves and allowed to moulder undisturbed. But the occupants of conspicuous tombs are sure to be dislodged, and their bones scattered about by the irreverence, the curiosity, or the malice of succeeding generations. As for the proud Egyptian monarchs, we have their mummies and tombs in our museums. It is the piety of Mussulmans which has prevented the tomb of Abraham at Macpelah from desecration. A sarcophagus, said to be of King David, is in the Louvre. The bones of the Anglo-Saxon kings were tossed out of their sepulchres by the Parliamentary soldiers in the Great Rebellion, and are now promiscuously preserved in chests in Winchester Cathedral. The tomb of William Rufus, in the same Cathedral, was ejected from a place it had held for seven centuries, and its contents dispersed within these few years. The *Gentleman's Magazine* of the last century tells how the tombs of the Plantagenet Kings in Edward the Confessor's Chapel were opened to gratify a morbid curiosity. That King Charles the First's coffin was opened, and a portion taken away of the vertebra which had been severed by the axe, is well known. The remains of King James the Second were dragged from their tomb at St. Germain's during the French Revolution; so well preserved were they that the fingers were quite flexible. "Murray's Guide Book for Egypt" relates the horrible medley of arms, legs, and skulls of mummies, resulting from the digging out the cemeteries at Sakkara in search of antiquities. In fact, all experience shows that attempts to defeat the law, "dust to dust," are punished by an aggravated though later form of degradation.

Burial, as one of the seven corporal acts of mercy, is intended to hide the shame of the grotesque, disgusting condition of the body during its decay; but if artificial means be taken to avert decay, it only secures to the departed the degradation of being exhibited in a glass case in the museums of some other quarter of the globe. The very changes on the earth's surface, the washing away of churchyards by the sea or rivers (as at Reculvers), the decay of buildings and removal of tombs, the construction of roads, and the like, not to say popular revolutions, religious and secular, in which coffins are turned into bullets and bells into cannon—all these things render nugatory the hope of avoiding the mingling of dust with dust.

With ideas like these, we see with dismay the artifices exhibited in the suburban cemeteries for insuring future desecration of the dead by means intended to avoid the fate of mortality. In some of these cemeteries may be seen structures marked out as the prey of future spoilers, delicate chapels of marble, with plate-glass windows, exhibiting the highly polished oaken coffin with its gilded ornaments. How long is this to remain unviolated? One century, two, or three? Be it so; but the time will come when the occupants will be forgotten, when a future generation will dispute the right of tying up land in perpetuity for a tomb, and when the remains will be carted off with little enough of reverence.

So far we have argued on the ground of common sense against artificial means of preserving bodies from decay, against metallic coffins, against tombs and mausoleums intended to prevent the dead from being mingled with their kindred dust. But there is one argument more. The unburied coffins containing half-decomposed bodies which fill the so-called "catacombs" of the cemeteries, are eminently unsafe to the visitors who resort to these cemeteries to pay their respects to the dead, or to seek a little fresh air in their well-kept walks and shrubberies. A friend of ours who visited one of these places lately asked one of the gravediggers if the "brick graves" were not offensive at times. "No, sir," was the reply, "it isn't them; it's the coffins as leaks in the catacombs." "Some of them," said another, "are a good deal blown." We need say no more, except to quote the Patriarch Abraham and his desire to have "the dead buried out of his sight," not left to moulder in a cellar exposed to the eyes and noses of posterity.

## GENERAL MEDICAL COUNCIL.

In our comments on the late session of the General Medical Council we left unnoticed one subject which excited a good deal of discussion. In the second report on the medical

examinations in the Queen's University, Ireland, the visitors make the following statement:—"We think it right to say that, in the course of our visit, we ascertained that it is a common practice for candidates rejected at the M.D. examination of the Queen's University to present themselves at the next ensuing examination of one of the Scottish licensing bodies, and to obtain therefrom a licence to practise almost immediately after previous examiners had declared them to be unfit. This practice, which is not limited to rejected candidates of the Queen's University and successful aspirants for Scottish licences, is, to say the least, exceedingly reprehensible, and injurious to the profession, and ought to be suppressed. We would suggest that the evil might, to a large extent, be remedied by a regulation of the Medical Council to the effect that no rejected candidate for a degree or other licence to practise should be permitted to present himself for examination before any licensing body within at least six months after his rejection." This was more than once commented on with not a little warmth, and Dr. Bennett, one of the visitors, was several times challenged to produce the authorities for such a statement, but he persistently declined the challenge, and it is easy to imagine that it would not have been fair to his informants to mention their names—not, at any rate, without their express permission. But the statement seems to imply that the examinations by the Scottish licensing bodies were easier to pass than the examinations at which candidates had just previously failed; and, naturally, this was indignantly repudiated by the representatives of the Scottish bodies. Dr. Fleming observed that it "was true that the Scotch bodies had a large number of candidates from both England and Ireland, and when a man presented himself he was subjected to a thorough and searching examination"; and he showed that out of fifty-nine Irish candidates who had presented themselves at Glasgow during the last six years and a half, twenty-one had passed, and thirty-eight had been rejected. "Four of those rejected had previously passed the first examination of the Queen's University, and sixteen held Irish diplomas; therefore it was perfectly evident that the Glasgow standard was higher than that of the Irish bodies." And Dr. Andrew Wood repudiated the implied stigma on the Scotch bodies, and "challenged the most minute investigation."

During one of the discussions, or conversations, on the subject, Dr. Parkes agreed with the opinion, expressed in the visitors' report, that no man rejected by one body should be allowed to go up to another licensing body until a certain time had passed. But the President pointed out that the matter had some time since been debated in the Council, and it was felt that it would be rather like gibbeting a man to send his name to all the other bodies; and Dr. Storrar added that "it was then the opinion of the Council that if a man presented himself before a certain body for examination, having complied with all the previous conditions of the examination, it was for that body to determine for itself whether the candidate was qualified, and that it ought not, in fact, to be guided by any conduct on the part of another body." The outcome of these discussions was that Dr. Bennett withdrew a motion he had placed on the notice paper, embodying the suggestion of the visitors, feeling that the matter had been sufficiently discussed. It was rather a mistake, we venture to think, to bring the subject to the notice of the Council without producible proof of the statement made, and something like proof that by the practice alluded to imperfectly qualified men gained admittance to the profession. It may be "a matter of common belief" that men rejected by one licensing board go at once to another, and sometimes with success; but ought "common belief" to move the Council to action? And supposing it proved that the practice denounced in the visitors' report does obtain, is it an evil that "ought to be suppressed"? We do not see that it is, unless it be admitted that some of the examinations for licences to practise are of such a low standard that men unfit to practise can pass them. And in that case the Council would, of course, exercise their power of, by aid of the Privy Council, closing such portals to the profession till the sinning bodies had amended their ways. It may surely, however, be taken for granted, at this date of the Council's existence, that all examinations for a diploma or licence are tolerably fair and up to mark; and in that case where is the injury to the profession if a candidate, failing to pass one examining board, goes immediately to another?

Grant that no licensing body will admit a candidate into the profession unless he has passed such an examination as is a good and fair test of his fitness to practise—and it is the work of the Council to see that this is the case,—and we fail to see that it can be injurious to the profession or the public if a candidate gains a licence from body 4, or 7, or 17 immediately or very shortly after having failed to get it from body 3 or 9. On the other hand, the possibility of "trying again" *may* be everything to the candidate, and is a great deal if it only saves him a delay of three or six months. There is a great deal of human nature in both examiners and candidates; the former may have crotchets or may have tempers; and the latter may be exceptionally nervous, or temporarily indisposed or unready. It is not quite an unknown thing for a really "good" and well-prepared candidate to fail now and then from these and somewhat similar causes, we believe; and the misfortune, or unintentional injustice, may be remedied by his presenting himself before another examining board. So long as there are several examining bodies, we do not see why a candidate who has failed to pass one of them should not have the power of submitting himself for examination by a second; and we do not see that that power can be mischievous so long as the Medical Council takes care, through "visitations" and the other means within its powers, to see that the requirements and examinations of no licensing body fall below a certain standard. If it is known that all the examinations are about equally stringent, fair, and good, no ill-prepared student will travel about from one examining body to another in hope of snatching a diploma.

## MURDER BY CLUB RULE.

"Mother-of-pearl" is a well-known substance turned largely to useful and ornamental purposes, and the principal seat of its manufacture is Birmingham. In the processes of cutting the shells and of making buttons, much dust is evolved as a matter of course, and the dust, being a mineral—and a highly irritating one, by reason of its vitreous hardness and mode of fracture—proves especially obnoxious to the lungs when inhaled, and produces that particular and too well-known form of phthisis induced by the mechanical irritant action of mineral particles on the pulmonary tissue, as exemplified so fatally among Sheffield grinders and among potters.

The law of self-preservation is much insisted upon by philosophers as an inherent and valuable appanage of human beings; but, unluckily, as experience among workpeople of various sorts shows us, the beneficial operation of this law is more or less neutralised by what may be called another law—viz., that of indifference. Philosophers speculating on human actions in their closets, keeping before them ideal men, as well represented by their own philosophic selves, fall into great errors respecting the motives and modes of action of living men, and particularly of that medley of beings who assume to themselves the special appellation of "the working classes." The love of life, or the law of self-preservation, should, on philosophic principles, dictate the avoidance of all causes of disease and of death; but this natural course is seen to be departed from on all sides, under the influence of the passions and the lusts of the flesh—or, in more modern phraseology,

from ignorance or misconception of biological laws and of psychological action. Thus experience amply shows to philosophers that men voluntarily sacrifice life and health without the reward of pleasure and self-gratification; and so demonstrates what we have called the law of indifference,—an indifference to future well-being in the prospect of present pleasure, or even of a lower motive—the avoidance of some trouble or painstaking.

But we can now carry the philosophers a step farther, and exhibit to them an instance in which men voluntarily decree among themselves to submit to disease and slow death, without anticipating compensation from present pleasure or from the avoidance of a little painstaking or temporary vexation. So dark and mysterious are the ways of men!

Leaving philosophy out of the question, the bare fact stands before us, that, by a union rule among the pearl-shell cutters, the use of a fan, or of other mechanical contrivance, to save them from inhaling the pernicious dust of their trade, is interdicted; and the introduction of such contrivances by a humane manufacturer into his factory is, by union law, sufficient cause to "call out" his workpeople, and, if possible, crush him, or compel him to be partaker with them in their slow murder. Such is one of the most recent exemplifications of the beneficent operations of trade-unionism! The fact is revealed in the last report of the Inspectors of Factories, but it is one that ought never again be possibly repeated. The factory laws by their sanitary clauses require machinery to be fenced, and noxious dusts to be got rid of by fans or other mechanical expedients. The laws address themselves to the masters, and make them responsible for carrying out plans to remedy sanitary evils, and in the case of the pearl-button makers those laws should be rigorously applied. The combination among the men, we presume, has practically hitherto overpowered the masters, but the Factory Inspectors should be able to overcome it; and, moreover, good grounds exist for some legal interference with union rules contributory, in plain words, to the murder of those who agree to them. Trade-unionism is a great power, supposed by those who concur with it to be a power for good; and so long as it concerns itself only with labour and wages, it may be tolerated under certain legal restrictions, but when it steps in and interferes distinctly, by its laws, with the health and life of artisans, a point has surely been reached where direct legal interference is called for. Indeed, it appears to us that the rules made in the supposed interests of workpeople in different trades should have the sanction of some public official as to their non-interference with accepted principles of legislation, and with sanitary requirements, whether expressed in the Factory Acts or in other Acts regulating labour. In the instance commented on, we have an illustration of a union by-law operating in direct contravention of the Factory Acts, and of the recognised laws of life and health, dictated by the selfish and atrocious principle of keeping up the wages of artisans by the sacrifice of their life.

## SOME POINTS IN THE MICROSCOPICAL ANATOMY OF THE KIDNEY.

Heidenhain contributes to vol. x. of Schultze's *Archiv für Mikr. Anatomie* a paper on the above subject, which contains some important observations.

He confirms the statement of other observers,(a) that the Malpighian body is provided in the mammalia with a double layer of epithelial cells, one of which lines the inner surface of its capsule, while the other covers the vascular glomerulus, and penetrates into the interstices between its vessels.

Heidenhain brings forward an entirely new view of the structure of the epithelial cells of the tubuli contorti. According to him they are not simple cells, but very complicated bodies. A large part of their protoplasm is broken up into a number of fine cylindrical "rods," which are placed vertically on the tunica propria, and run in a radiating course through the epithelial layer embedded in a very minute amount of structureless ground-substance. The "rods" surround the nuclei, which are placed at regular intervals, and are sheathed with a greater or less quantity of the protoplasm which remains undifferentiated into "rods." The greater part of what was formerly described as "fine granular matter" in the ground-substance of the cells is nothing but the optical expression of the sum of the rods seen in section. The epithelium of the broad ascending part of the tubes of Henle agrees in the main with what has been above described, but that of th remainder of the uriniferous tubes seems to be quite destitute of the rod-like character.

In birds it is only the epithelium of the part of the uriniferous tubes which correspond to the broad ascending portion of the tubes of Henle in man which shows the "rods," and they are of a more delicate structure than in the mammalia. In the frog and water salamander there are three distinct divisions of the tubules immediately beyond the Malpighian body which are without the "rods." The first is a narrow portion, which gets gradually wider, and is clothed with ciliated epithelium. The second has cylindrical epithelium, without cilia, but with granular contents, and a distinct nucleus. The third has ciliated epithelium like the first. The fourth division shows the rod-formation, and in fact the rods are more clearly visible here in the fresh state than in mammals. The remainder of the tube has clear cubical or cylindrical cells.

If we now compare the arrangement of the rod-like cells in the mammalia, birds, and amphibia, we find that they are most developed in the first of the three classes; in the other two they only occur in the broad ascending tubes of Henle, and at first sight there might seem to be some relation between extent of distribution and function of the parts. Thus the restriction to a smaller tract of tubule in the birds than in the mammalia might be thought to point to the "rods" as important agents in removing the watery parts of the urine in the latter; but we find the batrachia with *fluid* urine and with the "rods" distributed over the same limited extent as in birds. Moreover there are animals with kidneys in which no "rods" are found; for example, the common ringsnake, where their place is taken by pale flattish cells with large nuclei. In the tortoise the "rods" are also wanting. In the lizard, which, like the ringsnake, passes solid urine, the "rods" are present just as in the batrachia; and beyond them comes a division of the tubule which is wide and lined with gigantic cylindrical epithelium, such as are also found in the snake just before the termination of the uriniferous tubule in the larger collecting tubes.

Heidenhain has also discovered cells with rods (*Stäbchen-epithelium*) in the finer ducts of the parotid and submaxillary glands, as well as in the acinous glands of the mucous membrane of the nose. On the other hand, they are absent in the sublingual gland, in the proper mucous glands of the mucous membranes, in the lachrymal glands, and in the liver. It is at present impossible to give a satisfactory explanation of their functions, either from the results of physiological experiment or of comparative histology.

It is not difficult, according to Heidenhain, to demonstrate the "rod-like" epithelium. They can be seen in recent specimens of the kidney of the hedgehog and rat, or the kidney can be hardened before examination by various reagents. The best for preserving the structure of the rods is a 5 per cent. solution of neutral chromate of ammonium, in which the specimen lies twenty-four hours, and is then transferred to alcohol; or a fresh kidney may be injected with a cold saturated solution of calcium chloride until it is completely permeated

(a) For example, *Von Seng. Wiener Acad. Sitzungsberichte*, 1871, and *Centralblatt Med. Wiss.*, s. 29, 1872; also Isaacs and Moleschott.

with it, and then hardened in alcohol. Alcohol alone is not a good reagent for hardening the kidney. To separate the cellular elements of the part without destroying the "rods," Heidenhain recommends ordinary concentrated nitric acid, and subsequent preservation in diluted glycerine, or else a 33⅓ per cent. solution of caustic soda, or a 2½ to 5 per cent. solution of molybdate of ammonium may be used. The best of all "isolating" fluids, however, is the neutral 5 per cent. solution of chromate of ammonium. All these methods isolate from the epithelium of the tubuli contorti—(1) the rods either singly or in small groups, (2) masses of nuclei containing protoplasm, whose shape varies in different animals, and which lie embedded in the centre of the groups of rods. It is only in some of the mammalia that this residue of undifferentiated protoplasm has a distinct boundary; in others it blends insensibly with the structureless ground-substance between the "rods."

## THE WEEK.

### TOPICS OF THE DAY.

THE Premier's speech at the Mansion-house, on the occasion of the Lord Mayor's entertaining her Majesty's Ministers last week, so far as it touches the future policy of the Ministry in reference to measures affecting the public health, deserves notice. The Premier said—

"We have taken the opportunity of passing a great measure which completes the factory legislation of this country. It is our opinion that the condition of the people ought to be the first consideration of English statesmen. When we remember the comparatively limited population which has to bear the superstructure of our Empire—an Empire which I trust, under our advice and auspices, will not be diminished, but may, perhaps, be increased—it is absolutely necessary that the condition of the people should become a subject of the most anxious consideration of those who are entrusted with the government of this country. When we find a people whose population every year diminishes, and the stature of whose population gradually decreases—whatever may be the splendour of their arts and arms—we read in these facts the inevitable decline and fall of their power. And, therefore, it is of the utmost importance that the 30,000,000 and more who form the British nation should be a population most effective in all the qualities that make a gifted and powerful people. The spiritual, the intellectual, the moral, and the physical condition of that people are questions which not only deserve, but demand, the attention of the Government of this country. We have, therefore, had the opportunity of passing one measure in that vein during the present session of Parliament, but it is only an indication of the policy which it is our intention to pursue."

We think the Premier takes somewhat too gloomy a view of this subject. It is certain that only in one portion of the kingdom the population has diminished, and this not from the deterioration of the standard of the frame, but from emigration. We have no proof, so far as we know, that the general bulk of the people have decreased in stature, though it is what may be anticipated from overcrowded cities and the nature of the labour carried on in them.

On Wednesday last, at a General Court of the Governors of St. Bartholomew's Hospital, Sir Sidney Waterlow, M.P., was unanimously elected Treasurer in the room of Mr. Foster White, resigned from ill-health. The Prince of Wales presided, and paid a graceful compliment to the new treasurer—a compliment which will be echoed in every direction.

The recommendations of the Select Committee on the Apothecaries' Licences Bill are—"That the examinations and qualifications in each of the three kingdoms be identical. That the fees to be paid for examination, licence, and registration be equal. That registered licentiates of each kingdom shall have equal rights and privileges in the three kingdoms respectively. That after a date to be named, they are of opinion no person whose name is not on the register of the Pharmaceutical Society of Great Britain and Ireland, with the exception of the licentiates of the Apothecaries' Hall of Ireland, should be permitted to sell any of the articles scheduled, or to be scheduled, as poisons under the sale of Poisons Act (Ireland), 1870, or to compound prescriptions containing any such articles." It is recommended the Bill be not proceeded with—an Irish way of settling the matter.

The good service pension of £100 a year for medical officers of the navy, vacant by the death of Sir Alexander Nisbet, Inspector-General of Hospitals and Fleets, has been conferred on Dr. James Salmon, Inspector of Hospitals and Fleets, and Honorary Physician to the Queen.

Dr. Haviland, Medical Officer of Health to the Sanitary Authorities in the counties of Northampton, Leicester, Rutland, and Bucks, in his annual report presented to the meeting of the sanitary delegates held at Northampton recently, enters with much detail into the sanitary history of the districts over which he has supervision. He shows the beneficial effect of the sanitary improvements already carried out, the great need of the further extension of them, and how much yet remains to be done. In reference to Northampton he remarks that having now had some experience of the working of the Sanitary Act in Northampton, he must confess that he believes nothing of a satisfactory character will be effected until the urban authority shall take upon itself the duties which now devolve upon the Improvement Commissioners. In fact, the town would be greatly benefited in many ways if the urban authority were to take upon itself the entire responsibility of carrying out the various sanitary regulations necessary for the preservation of the health of the inhabitants of such an important manufacturing town. Unfortunately for Northampton, the town has extended beyond the south bank of the river, where drainage is almost impracticable; in fact, it may be safely said that Northampton has placed its dead where the living ought to be housed, and the living where the dead ought to be buried. Situated as Northampton proper is, on an elevated site composed of the characteristic sand, and furnished with a magnificent supply of water brought from the middle lias at a depth of 165 feet, it might be made one of the most healthy towns in England.

Sir Alexander Armstrong, K.C.B., Director-General of the Naval Medical Department, has just made his annual official inspection of the Royal Hospital at Haslar and the other naval establishments at Portsmouth.

The trustees of Anderson's University, Glasgow, have elected Dr. Alexander M. Buchanan, Professor of Anatomy, and Dr. A. Wood Smith, Glasgow, Professor of the Practice of Medicine.

A large specimen of the torpedo electric ray was safely lodged in one of the tanks of the Brighton Aquarium this week. It is said to be one of the largest of this rare fish that have ever been exhibited.

The death is announced, after a short illness, of Dr. Theodor Simon, Physician to the General Hospital, Hamburg. At the early age of thirty-three years, Dr. Simon had earned a considerable reputation among the profession in Germany, and was especially known for the work which he has done in the department of nervous diseases.

### HOW SMALL-POX IS SPREAD.

NOTWITHSTANDING the unremitting exertions of the local medical men and officers of health, small-pox has increased to an alarming extent in Newmarket and the surrounding district during the past week. The disease was brought into the

neighbourhood by a labourer, who returned home to Newmarket a few weeks ago and communicated it to his wife and family. The disease in these cases was of so mild a nature that the man and his wife continued their usual employment, and as no medical man was called in to attend them, its existence in the town was unknown, until it was discovered in the family of an innkeeper. Even here it was kept secret for more than a fortnight, and during this time the business of the inn was carried on. Shortly afterwards the disease broke out in a more malignant form in a cottage in a crowded alley leading from Wellington-street to the Market-square. A man named Purr died, and after the body had been put into the coffin by his mother and sister, it was placed in the yard under the very windows of the surrounding cottages, where it remained for some time, before it was buried. This, it seems, was unknown to the authorities at the time, but afterwards they had the deceased man's bed, etc., burnt, and used all possible means to check the progress of the disease; but it has nevertheless continued to spread throughout that part of the town. It is also prevalent in a square called the Duddery, or Rookery, in several houses on Mill-hill, and in New Town; in fact, it is difficult to say what part of the town is unaffected. The contagious wards of the Union-house are full. Daily meetings of the members of the Local Board of Health have been held, and a hospital was procured from London and directed to be erected in a meadow near the Great Eastern Railway, but to this an objection was raised by the railway company, and the place was abandoned. The Jockey Club, however, kindly allowed the use of the commodious stand upon the July Course, which is now fitted up with every convenient requisite, and to it all removable cases will be taken. Two experienced nurses have arrived from London, and, under these, assistant nurses are employed, and between thirty and forty beds have been lent by the Board of Guardians; so that a complete system has now been established for the benefit of the town and neighbourhood.

### HOW TO UTILISE OUR SEWAGE.

One of the difficulties of this age—how to get rid of our sewage—is proposed to be determined in rather a novel manner. A Manchester paper reports that a Mr. Andrew Bray, who is at present in America, has invented and patented an illuminating gas, which seems likely to do much not only towards supplying a purer and cheaper light than that of the ordinary coal-gas, but also of solving the great problems of how to economise coal, and also how to dispose of our sewage. The source from which the gas is obtained is sewage-water, one quart of which will yield forty-seven feet of the gas. Three retorts are fixed in a furnace, and when they are sufficiently heated the liquid is passed through two of them, through an iron cylinder called the hydraulic main (which is elevated above the furnace), through the third retort, and then through a coil of metal piping immersed in cold water. Afterwards the processes resemble those employed in making coal-gas. It is claimed that the illuminating power of the new gas is treble that of the gas at present used in our streets, manufactories, and houses. For instance, a No. 1 burner consumes one foot of coal-gas an hour, while a No. 3 consumes three feet; but when the new gas is used a No. 1 burner will give as much light as a No. 3 through which coal gas is consumed. The new light is said to be clearer than ordinary gas, more like daylight in appearance, and more compatible with good health, because it is free from tar and sulphur, and cannot give off any waste carbon. As regards cost, it appears that, while coal-gas cannot be produced under any condition for less than a shilling per 1000 feet, the same quantity of the new gas may be manufactured, even in a small way, for less than a shilling. One of the reasons of this reduced cost is, that only about twelve men would be required in the process of making the new gas, against at least a hundred who are needed under the present system. The illustration of this is, that in manufacturing ordinary gas a great number of men are necessary to keep up the supply of coal to the retorts, and to remove that which has been burnt into coke; but this work is altogether avoided in the process of making the sewage-gas.

### REMINISCENCES OF THE ASHANTEE WAR.

A War-office return has recently been issued, which gives the number of men engaged in the recent Ashantee war, together with the losses and casualties incurred during the campaign. The numbers shown are, it should be stated, exclusive of native levies and the two West India regiments.

The total strength of the force of all ranks employed was 2587. Of these 44 died from disease, 298—viz., 50 officers and 248 men—were invalided home, and 169 men left on board ship or in hospital. Four officers and 2 men were killed in action, and 1 officer and 10 non-commissioned officers and men succumbed to their wounds. Six officers and 49 rank and file sustained severe wounds, and 21 officers and 109 men were slightly hurt.

There is now remaining at Netley Hospital only one wounded officer from the late campaign—Lieutenant Sherston, of the 2nd Battalion Rifle Brigade. This officer is slowly progressing towards recovery. Captain and Brevet-Major North has been found sufficiently improved to be discharged, and has, we believe, left this country for a milder climate.

The most recent reminiscence of our late fight on the Gold Coast was lately removed from the body of a man of the 2nd Battalion 23rd Regiment, at Netley Hospital. In this case, which has been under treatment for some time, it was found necessary to resort to excision of the head of the left humerus; and after the operation a leaden slug was found in the head of the bone—an amount of penetrating power fortunately not possessed by many of the missiles launched against our men by King Koffee's soldiers.

### THE LOCAL GOVERNMENT BOARD (IRELAND).

The annual report of this now most influential executive body has just been issued. Several points of interest in connexion with the poor-law and medical administration of the country are contained in the report. From it we learn that, whereas the number of inmates of the workhouses increased in 1873 to 54,125 from 51,167 in 1872, it has again fallen in 1874 to 51,161. The small-pox epidemic of 1872, together with two wet seasons in succession, caused the increase in 1873; while the recent decrease is largely due to the exceptionally mild and fine winter of 1873-4. The expenditure for the administration of the poor-law in 1873 was £959,736, or 1s. 5½d. in the pound. In 1872 the poundage had been 1s. 4d. As regards the working of the Medical Charities Act, the report alludes to the frequent abuse of poor-law medical relief by persons whose affluence leaves them without excuse for seeking medical aid at the dispensaries. In Ulster, the Dispensary Committees have endeavoured to check this growing evil by cancelling the tickets obtained by well-to-do individuals. A decrease in the numbers of persons vaccinated, although small-pox is raging in Belfast, Derry, and many other places, is sought to be explained by a fear of infection at the vaccination stations. Referring to the working of the Local Government Act, the report lays stress on the great saving of expense effected by the substitution of inquiries into applications for provisional orders to change local Acts for Parliamentary inquiries in London. On the whole, the report justifies the public confidence at present enjoyed by the Local Government Board for Ireland, and leads us to believe that the new Public Health Bill will be as efficiently administered by the Board as those Acts with which the report deals.

### THE DENTAL DIPLOMA OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

It may be remembered that in 1859 the College of Surgeons was empowered, by Royal Charter, to institute and hold examinations in dental surgery, and grant certificates of fitness to practise. The College framed certain conditions on which practitioners of dental surgery should be admitted to examination, and one of these was that after September, 1863, no one should be allowed to present himself for examination without proof that he had passed through a certain defined curriculum of study. A considerable number of dentists seized the opportunity of obtaining the licence of dental surgery during what we may call the four years of grace, though the number was by no means large when compared with the number of dentists in practice. Since 1863, however, and as the value of the dental licence has become more and more appreciated, many have regretted that they neglected the chance of gaining it while they could do so without passing through the curriculum; at last a petition, largely and influentially signed, was presented to the President and Council of the College, praying that they would "permit all those whose dental education commenced prior to September, 1859, to present themselves for examination without requiring them to pass through the curriculum, but *not* without subjecting them to a fair yet searching examination." The petition stated that "there are many gentlemen of excellent practice in the provinces, colonies, and elsewhere who would spare no expense, no time, in the acquirement of knowledge by private reading and study, if by such means they could be admitted as candidates for the dental diploma," but who could not afford now to give up practice and enter the ranks of students in London. We congratulate the dental profession on the fact that the Council of the College have, after due consideration, granted the prayer of the petition, and have reopened their doors on certain conditions, one of which is "freedom from the 'vulgar vice' of advertising." For this boon the profession is largely indebted to the energy and perseverance of Mr. Charles James Fox, who, we may add, is, like many of the petitioners, a member of the College, as well as a Licentiate of Dental Surgery, and therefore was not personally interested in the matter.

### POISONOUS WALL-PAPERS AND GARMENTS.

There has lately been revived a question of much importance to general health, in the shape of a warning on the subject of wall-papers and articles of clothing coloured by the employment of arsenic in greater or less quantities. In a lecture delivered by Dr. George Johnson before the National Health Society, a most important instance, recently fully reported by the sufferer himself in our columns, was referred to. A medical man, middle-aged, active and healthy, caused a garden-room of his house to be hung with bright green paper. Almost immediately he began to be strangely out of sorts; violent influenza symptoms oppressed him continually, he became subject to sneezing fits, felt an inability to breathe by the nostrils, and suffered from a sense of impending suffocation. The senses of taste and smell both became impaired, yet except from the inconvenience of what resembled chronic catarrh he did not feel seriously ill. After a time asthma supervened, and change of air was tried. This almost immediately relieved the difficulty of breathing, but the asthmatic affection recurred at intervals, and chronic dyspepsia was added to the other disturbing symptoms. Treatment and fresh air, away from his home, nearly restored the sufferer; but when he returned to his practice, a violent fit of coughing came on the first evening that he spent in the newly-papered room, and at length the suspicion was aroused that the illness might possibly be traced to the papering of the apartment. An analysis of the wall-paper revealed the presence of a large quantity of arsenic. Its immediate removal from the walls caused the disappearance of all the distressing symptoms, and the physician ultimately recovered, though still a victim to asthma, which incapacitated him for practice.

This unfortunate instance shows that the warnings which were so loudly echoed as long back as the year 1857 have been forgotten. Arsenic has again been permitted to creep into the various compositions for producing pretty colours, and the effect will again prove disastrous. Professor Crookes, in a work just published on "Dyeing and Calico Printing," affords ample proof that arsenic and other poisonous bases for pigments are in general use; and although some constitutions are apparently unaffected by contact with these dangerous compounds, there can be no doubt that others suffer acutely from a variety of complications brought on through the subtle effects of these poisons.

Legislation should surely step in to protect us from the ravages of this description of secret poisoning; meanwhile the general public itself should be carefully on the alert to guard as much as possible against evils of this nature; and where sudden and mysterious illnesses occur, it would be well to cast about to the new papering of rooms, or the possession of new and pretty coloured raiment, for a possible solution of the distressing and suddenly developed malady.

### EFFECTS OF DRAINAGE ON HEALTH, LIFE, AND MORTALITY.

Mr. James Burdett Moxon, Medical Officer of Health of the Glanford Brigg Union, in his first annual report to the Rural Sanitary Authority for the past year, referring to the deep subsoil drainage which has been effected already and the draining operations at present going on, says—"By these and other means the district has been improved in the most remarkable manner. It is probable, indeed, that in no part of the kingdom have general and subsoil drainage and other agricultural improvements made a greater change in the aspect and fertility of the country, and incidentally in the health of the inhabitants." He adds:—

"Within my own memory, there was an enormous consumption of quinine in this part of Lincolnshire, as a remedy for the ever-prevalent ague. It is probable, too, that the habit of opium-eating which prevails so extensively in Lincolnshire is connected, in its origin, with a desire to alleviate the distressing sensations of constant ill-health which most experience who live in malarious districts. I believe, however, this pernicious habit is on the decrease. Among other causes of improvement, a recent Act of Parliament which prohibits the sale of opium and certain other poisons, except by duly qualified and registered druggists, has banished it from the small village shops, and thus removed many of the opportunities for its ready purchase. With especial reference to ague, I would observe, in passing, that we have here a notable instance of the effect of sanitary measures in the removal of the *causes* of disease. Good general drainage of this district, and other measures necessary for agricultural success, have incidentally abolished this disease. Let us hope that the operation of sanitary laws directed to the removal of the causes of other equally preventable diseases, will be equally successful."

### CATARACT IN INDIA.

At the February meeting of the Medical and Physical Society of Bombay, Dr. Maconachie described the results of the extraction of fifty hard cataracts in the Cowasjee Jehangier Ophthalmic Hospital during the latter half of 1873. Graefe's operation with De Wecker's modification was followed, for it is absolutely necessary in India to have as small a corneal wound as is compatible with the easy exit of the lens. More than 30 per cent. of the cases were formerly lost from sloughing of the cornea alone, in addition to the other casualties which are wont to happen in extraction by the ordinary flap operation. The success of Graefe's method appears to be as great as that of any which has been introduced into India. In Dr. Maconachie's present series, forty-eight of the cases were uncomplicated, and of these forty-five were perfectly

cured, while of the three other cases two were followed by simple iritis and contraction of the pupil, without great impairment of vision, and one, where the capsule was opaque, could count fingers through it without a lens. The two remaining cases were complicated with disease of the fundus oculi, one with choroiditis disseminata, the other with retino-choroiditis. The operations surgically had perfect results, as an excellent clear pupil was obtained in both. It will thus be seen that in no case did suppuration of the cornea occur; also that all the cases obtained more or less vision, where it was possible by an operation to restore vision; and that forty-five out of the forty-eight obtained excellent sight. The after treatment suits native patients well, as they can get up and move about within twenty-four hours of the operation, and little confinement to bed at any time is required.

### HEALTH OF SCOTLAND.

In the month of June last there were registered in the eight principal towns of Scotland the deaths of 2464 persons, of whom 1269 were males and 1195 females. Allowance being made for increase of population, this number is 46 below the average June mortality of the last ten years. A comparison of the deaths registered in the eight towns shows that during June the annual rate of mortality was 21 deaths per thousand persons in Edinburgh and in Aberdeen, 22 in Perth, 24 in Greenock, 25 in Paisley, 26 in Leith, and 29 in Glasgow and in Dundee. Of the 2464 deaths registered, 1045, or 42 per cent., were of children under five years of age. In Paisley, 28 per cent. of the persons who died were under five years of age; in Perth, 29; in Aberdeen, 33; in Edinburgh, 36; in Leith, 38; in Greenock, 42; in Glasgow, 46; and in Dundee, 49 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 613 persons, thus constituting 24·9 per cent. of the mortality of the eight towns. This rate was greatly exceeded in Dundee from the prevalence of scarlatina. Scarlatina continues the most fatal of the epidemics, and appears markedly on the increase, the deaths from this disease having increased from 148 in April and 166 in May, to 214 during the present month, which is equal to 8·7 per cent. of the whole mortality. The towns in which this epidemic is most prevalent are Leith, Perth, and Dundee, where 12·0, 14·6, and 23·8 per cent. of their respective mortalities resulted therefrom.

### HEALTH OFFICERS IN CALCUTTA.

It appears that the question, "What are the duties of a health officer?" has formed the subject of a lively debate by the justices of the peace for the town of Calcutta. The June number of the *Indian Medical Gazette*, in an article on the matter, states that the justices have been paying 1600 rupees a month as the salary of a health officer, and 300 rupees in addition to this for the analysis of water and gas. It struck some of them that a saving of the latter item might be effected by requiring the analysis of water and gas of the health officer as one of the ordinary duties of his appointment. Dr. Tonnerre, with a candour which does honour to his honesty, if not to his acquirements, frankly confessed that he was unable to execute the work, and further contended that the analysis of water and gas was the business of a specialist, an analytical chemist, and not of a health officer. On the other side it was urged that the health officers of other towns have done the work in question, and that Dr. Tonnerre himself condemns and confiscates articles of food and drink whose adulterations and inferior qualities can only be properly determined by chemical analysis. The question has been settled, as far as Calcutta is concerned, by the appointment of a separate analyst of water and gas; but the general issue remains open. The article concludes with the following remark:—"With all respect for the Health Officer of Calcutta, we must declare our conviction that the necessity which he has forced upon the municipality, to engage an analyst for the purpose of deciding such simple matters as the quality of water and gas, does not redound to his credit."

### PREPARING MEAT FOR SALE.

Dr. Yeld, Medical Officer of Health of the Borough of Sunderland, has brought before the Health Committee the objectionable practice of blowing and stuffing of veal and other meats. Meat so treated cannot be wholesome as it should be, and has often been found to produce injurious effects on those who have partaken of it. Moreover, it gives it a deceptive appearance of plumpness. With the view of putting an end to the practice, Dr. Yeld recommended the Committee to ask the Town Council to sanction an application being made to the Home Secretary for by-laws to be made under 5 and 6 William IV., c. 76, s. 90. This recommendation the Committee unanimously carried. The Council have subsequently adopted the report. The by-laws proposed to be made are—"1st. That no part of any animal intended for the food of man shall be prepared for sale by the process called 'blowing,' and persons selling or exposing for sale such prepared meat shall be liable to penalties of 20s. for each offence, and on a second conviction to 40s. each. 2nd. Like penalties will be incurred by persons dressing for sale any part of an animal intended for the food of man artificially by stuffing the loins or any part of the animal with fat or otherwise so as to give it a deceptive appearance."

### HEALTH AND MORTALITY OF HARROGATE.

Dr. Deville, Medical Officer of Health of Harrogate, states that the mortality for the quarter ending 31st March last was 18, being at the rate of 10·3 per 1000. This almost unparalleled low rate of mortality shows that Harrogate will contrast favourably with any other British watering-place. During the quarter ending 30th June last, the deaths recorded were 34, or 19·4 per 1000 living of the ordinary population. This augmented death-rate is in some measure accounted for by deaths amongst visitors; but, with these deaths added, the mean average of the half-year does not exceed 14·85 per 1000. To take a fair estimate of the death-rate during the season, it ought to be calculated on a population of nearly twice the ordinary number, and allowance also made for the fact of the majority of the visitors being more or less out of health, because, as will readily be seen, these circumstances necessarily increase the total mortality very considerably. Another source of an augmented death-rate is found in the fact that many persons advanced in life come to spend the remainder of their days at Harrogate, who are often in an enfeebled condition of health, or labouring under chronic disease, to which they at last succumb.

### THE END OF BILLROTH'S CASE OF REMOVAL OF THE LARYNX.

The patient on whom Billroth, of Vienna, performed extirpation of the larynx with such remarkable success (*Medical Times and Gazette*, 1874, vol. i., p. 192), and who was thereafter provided with an artificial vocal apparatus (*Idem*, p. 508), is dead. It may be remembered that the operation was performed on the 31st of December last, and death occurred on July 7. The cancerous disease reappeared locally soon after the patient's return to his home in Bohemia.

### WATER SUPPLY OF LONDON.

Mr. Frank Bolton, in his report for June on the water supplied by the metropolitan water companies, considers the following clause of the Board of Trade Regulations, 1872, relative to waste-pipes, of sufficient importance to justify its repetition; and, he adds, if carried out in its integrity, it will prevent contamination of the water, from the gases generated by sewage, which are extremely liable to flow back into the

cisterns, and become absorbed by the water, unless the overflow pipe is brought outside the house, and the end left exposed to the air, instead of being carried into the drain :—

"*Regulation* 14.—No overflow or waste-pipe other than a 'warning-pipe' shall be attached to any cistern supplied with water by the company, and every such overflow or waste-pipe existing at the time when these regulations come into operation shall be removed, or at the option of the consumer shall be converted into an efficient 'warning-pipe,' within two calendar months next after the company shall have given to the occupier of, or left at the premises in which such cistern is situate, a notice in writing, requiring such alteration to be made."

### THE DIURETIC ACTION OF DIGITALIS.

In the *Centralblatt* for July 4, Dr. Brunton and Mr. Henry Power bring forward reasons founded on some recent experiments of theirs for rejecting the prevalent theory that digitalis increases the flow of urine by raising the blood-pressure in the arterial system. They injected digitalin in considerable doses into the veins of a dog, and drew off its urine by means of a catheter. The injection was followed by great diminution or even total suppression of the flow of urine, while the blood-pressure rose simultaneously. After a time the latter again diminished, with, in some experiments, an immediate increase in the secretion of urine ; whereas in others this did not occur until the blood-pressure had fallen below its normal state. In some experiments the rate at which the urine was secreted with a subnormal arterial tension was very considerable. Now, if digitalis owed its diuretic action simply to its power of increasing the blood-pressure, the secretion of urine ought to be considerably increased immediately after the injection, and to diminish *pari passu* with the blood-pressure. The experimental result is, however, exactly the opposite. The authors are therefore inclined to explain the diuretic action of digitalis by assuming that it stimulates the vaso-motor nervous system generally, while it exercises a special action on the vaso-motor nerves of the kidney. From this results a moderate contraction of the vessels of the whole body, with consequent increase of the blood-pressure ; while in the kidney the contraction is excessive, and so puts an end to the flow of urine. As soon, however, as the stimulus to the vaso-motor nervous system is removed, the vessels of the kidney relax more quickly and more completely than the systemic vessels, so that the tension of the blood in the glomeruli of the kidney is still above the normal, although that in the general circulation is below it. This theory is further supported by the fact that albumen appears in the urine after the re-establishment of the secretion—just as Hermann has observed it to occur after mechanical obstruction of the circulation in the renal arteries. The authors consider that the action of digitalis may also be due in part to its direct effect on the secreting cells of the kidney, and they are at present investigating this point.

### APOMORPHIA AS AN EXPECTORANT.

Dr. Jurasz, assistant at the Medical Dispensary at Heidelberg, has found apomorphia in the shape of the hydrochlorate, and administered in doses of one to three milligrammes every two hours, a valuable expectorant in cases of tracheitis and in bronchitis in its various forms. By its use the expectoration is rendered easier and more abundant, to the great relief of the patients, while the physical signs show a corresponding change from dry whistling rhonchus to plentiful moist râles, which gradually disappear. Dr. Jurasz adds a few drops of hydrochloric acid to the mixture in which the apomorphia is dissolved, to prevent the formation of the greenish tint which otherwise occurs, and which deepens the longer the solution is kept. The only ill effect which patients have complained of from the drug is slight nausea after the first dose, but this has disappeared after a second dose.

### PARLIAMENTARY.—ADULTERATION OF FOOD—SLAUGHTER-HOUSES BILL—REGISTRATION OF BIRTHS AND DEATHS.

In the House of Commons, on Friday, July 24,

Mr. Sclater-Booth, replying to Sir H. Peek, said, that since receiving the deputation with a view of limiting the prosecutions under the Adulteration Act, he had consulted the Secretary of State, and they were of opinion that it would be unwise to restrict the operation of the law, but he hoped that the local authorities would be extremely careful in instituting prosecutions, especially on the subject of tea adulterations.

Mr. Cross, on Tuesday night, gave a similar reply to Mr. Alderman Cotton's inquiry respecting prosecutions for tea adulterations.

In the House of Lords, on Tuesday, the amendments to the Slaughter-houses Bill were agreed to.

In the House of Commons, the Registration of Births and Deaths Bill was read a third time and passed, and the Vaccination Act (1871) Amendment Bill passed through Committee, and was read a third time on Wednesday, July 29.

In the House of Lords, on Thursday, July 30, the Sanitary Laws Amendment Bill was to be read a second time, and the Public Health Bill for Ireland was to pass through Committee. The Slaughter-houses Bill was to be read a third time.

## INTERNATIONAL EXHIBITION.

### The Australian Wines.

The Australian wines make a goodly show in the Exhibition. Many samples of them are shown, some old in bottle ; but the stocks, save of a few kinds, are, we believe, still very limited in this country. The production of wines is, comparatively speaking, a new industry in Australia, and this will account for much that is defective in the characters of some of them ; but enough has been done to prove that the quantity which may be produced there is almost boundless. In the meantime the grapes are the growth of young vines, and it is just possible that many of the producers may be comparatively ignorant of the methods best suited for their grapes, and so in some instances the result is not so satisfactory as it might be. Many of the wines here shown are exceedingly good, and these also show what due care in selection and in the wine-making process may accomplish. The whole collection is under the care of Mr. Burgoyne, of Old Broad-street, who is also agent for the Australian Vineyard Association, and himself exhibits some excellent wines. One of the best shown by him, and, indeed, one of the best Australian samples, is a light white wine, called Highercombe, approximating to sherry in flavour, but natural and unfortified. It has a delicate flavour and bouquet, and is very well suited as a dinner wine for those who need something more than the alcohol contained in the lighter class of wines, but who like not the heavy ports and sherries as ordinarily sold. To this lighter class of wines belong two others, the products of Riesling grapes—the one called a Hock, the other a Sauterne. Both of these wines have a remarkably good bouquet, especially the Sauterne, which we esteem the better of the two, though cheaper. This has, however, less body than the Hock, which seems to us rather too young to have developed much character. Another Riesling, the growth of Mr. E. J. Peake, we also mark as very good ; its flavour is well developed, and it has a good body. A fourth Riesling, grown by Mr. Gilbert, is exceedingly good as far as flavour is concerned, but lacks body. Yet another good Riesling is that grown by Mr. Foote.

On the whole we fancy the red wines are not so good as the white. Red Highercombe is fairly good, but not so good as the white. Tintara is perhaps the best red wine shown by Mr. Burgoyne. It is a trifle sweetish, but is well suited for an after-dinner wine.

From Victoria only a few samples are sent, but they are very well worth notice. One white wine, styled Ngawend, is excellent. Still better as regards flavour is a white Hermitage grown by Mr. G. de Puray, near Melbourne ; its bouquet is not perhaps so delicate as that of Ngawend, but it is of greater alcoholic strength. A red Ivanhoe, grown by Mr. Charles Maplestone, is probably the best of the Victorian red wines,

but it, too, wants age in bottle. A Claret Carbinet, grown by Mr. Charles Braché, is a capital wine.

In short, these specimens are all well worthy of study; they promise to contribute much to our supplies of good natural wine; and when the processes of production are better understood, and when the wines have had more time to mature, their value will be greatly increased.

## ABSTRACT OF THE APOTHECARIES ACT AMENDMENT ACT, 1874.

The following abstract of the "Apothecaries Act Amendment Act, 1874," has been forwarded to us by the Society of Apothecaries:—

The first section enacts that the Act shall be cited as the "Apothecaries Act Amendment Act, 1874."

The second section repeals those provisions of the Apothecaries Act of 1815 which require any member of the Court of Examiners (or any of the five apothecaries to be appointed under that Act for examining assistants to apothecaries) to be a member of the Society of not less than ten years' standing.

The same section repeals those provisions of the Act of 1815 which require candidates for examination for a certificate to practise as an apothecary to have served an apprenticeship of five years.

The third section enables the Society, with the sanction of the Privy Council, to form part of any Conjoint Examining Board to be constituted under the provisions of the Medical Act of 1858.

The fourth section provides for the Society having power in certain cases to strike licentiates off their list.

The fifth section saves any existing rights of women to be admitted to the examination of the Society.

Independent of the power given to the Society to form part of any Conjoint Examining Board, the Act will therefore be found to effect the following important changes:—

(1) The Society can for the future select their examiners from the whole medical profession, or from any scientific body instead (as formerly) from a very limited class of the members of the Society.

(2) Apprenticeship is no longer made a necessary condition required of candidates presenting themselves for examination for a certificate to practise as an apothecary.

(3) The Society can strike licentiates off their list on the same grounds as they can be struck off from the Medical Register.

It may be observed, in conclusion, that no new rights are conferred upon women by the fifth section of the Act.

## THERAPEUTIC MEMORANDA.

### Bromide of Potassium in Tic.

Sir,—Having succeeded twice recently in giving immediate relief in neuralgic headache accompanied by shooting pains in the trifacial nerve, with a sensation "as though the head would split open," I beg to recommend to your readers the simple remedy employed—viz., bromide of potassium in a single dose of twenty grains taken at bedtime. As no inconvenience resulted from this dose, I concluded that it was just exactly sufficient to accomplish the end in view. The dose mentioned in Dr. Meadows' "Prescriber's Companion," 1864, is only from three to ten grains; but I presume the profession were, at the time of its publication, only imperfectly acquainted with the drug in question. My own feeling is always in favour of giving the smallest dose of any drug that is sufficient to give relief. In this case the patient, a girl of about twenty, continues perfectly well.

I am, &c.,

Edward Haughton, M.D.

Upper Norwood, S.E., June 18.

*** In certain cases it is not unusual to give even as much as sixty grains for a dose.—Ed.

A Female Doctor.—Mdlle. Vögtlin, who has been practising medicine at Brugg, has received from the Faculty of Medicine at Zurich the degree of M.D.

## SERIOUS CHARGE AGAINST A NUNEATON SURGEON.

At the Atherstone Police-court, on Tuesday, Mr. Edwin Peacock, surgeon, of Chilvers Coton, near Nuneaton, was charged with the manslaughter of Ann Woodward, wife of John Woodward, labourer, of Hartshill, on June 19 last. Fortunately for our profession it is not often that such a charge or such evidence is brought before the public. Indeed, in a case like this we hardly feel ourselves justified in abstracting the evidence, but give it as nearly as possible in full. As the case is yet unfinished we abstain from all comment, but only premise that there had been previous to this a coroner's inquest, which, by the weight of medical evidence, ended favourably for Mr. Peacock, but which gave rise to so much dissatisfaction as to cause the Treasury to take up the matter, so that the prosecution is now a Government one. In conclusion, we cannot help thinking that an adjournment to October 9, if convenient for the magistrates and legal gentlemen, is most unjust to Mr. Peacock, over whose head this dreadful accusation hangs, supported by a certain amount of evidence altogether unrebutted. Such a case ought to be settled with all speed.

After an opening statement by the prosecuting counsel,

John Woodward was called, and said he was a labourer, living at Hartshill. His wife died on the morning of June 20. At that time she was forty-three years of age. On Friday night, June 19, she was taken with pains of labour, and he therefore went to fetch Mr. Peacock, who had been engaged to attend her. On returning home about eleven o'clock he found Mr. Peacock there. Whilst Mr. Peacock was upstairs he heard him say to his wife, "Lie still, or else I will leave you." She replied, "Then leave me." She had in previous confinements suffered from cramp in the hip. Witness did not go upstairs till the child was born. The child was born about twelve o'clock, and soon after the birth Mr. Peacock called for some brandy, which was supplied. Witness went out to fetch more brandy, and on returning about one o'clock, Mrs. Wilson, one of the women attending deceased, told him that she was dying. He went upstairs then whilst Mr. Peacock was there, as his wife wished to see him. Mr. Peacock then stood by the bedside. His wife said to him when he went up, "That man is the death of me." Mr. Peacock asked her if she was in pain, and she said she was in pain. That would be about half an hour after he fetched the brandy. Before Mr. Peacock left he said that the woman would die in less than an hour. She died about twenty minutes before two o'clock. On the following morning he went to Mr. Peacock's surgery, arriving there about nine o'clock. He went by appointment with Mr. Peacock to get the certificate of death. Mr. Peacock then said he was very sorry for what had happened. He then gave him the certificate. Mr. Peacock said he did not think he had done anything wrong; he had done everything to the best of his judgment. Witness returned home about eleven o'clock, and met Mr. Peacock. He had something in his hand in a rhubarb leaf. Witness followed him to the door. Mrs. Wilson remarked that he was going to take it away, and witness replied that he should not. Peacock said he should take it away. He said that twice. Witness threatened to lock the door, and prevent him taking it away. He then left what he was carrying, washed his hands, and left the house. Witness fetched a policeman, and also Mr. Handford, surgeon, and gave the contents of the rhubarb leaf to him. Had been married twenty-two years, and had had eleven children.

Cross-examined: Mr. Peacock had attended his wife in her two last confinements. He did not know that they were difficult confinements. He lived about three miles from a medical man.

Eliza Wilson, wife of John Wilson, labourer, of Hartshill, said that on Friday, June 19, she went to attend Mrs. Woodward at her confinement. The husband went for Mr. Peacock, and she remained till he came, about half-past ten. Mr. Peacock ordered deceased to go upstairs with him, and witness followed. After some time had elapsed Peacock ordered witness to fetch his instruments. Witness fetched them. She said,

"Sir, I hope you are not going to use them." He replied, "I shall not unless I am forced to it." He laid the instruments on the table. He came down again for the instruments, and witness again told him she hoped he was not going to use them, as the deceased dreaded them. Mr. Peacock said the child could not be born without them. Saw him take the instruments to the woman, but could not see him use them. The child was born shortly afterwards. He was by the bedside for a long time, but witness could not see what he was doing. He was engaged in this way more than ten minutes, and during that time Mrs. Woodward appeared to be in great pain. Mr. Peacock was very still, and remarked that "it was worse than the baby being born." Witness took the baby downstairs, and Peacock shouted out, "Where are the scissors?" As they were not at once given to him, he said, "Good God! where are the scissors?" Witness went upstairs and found him still continuing the operation, and the scissors were lying on the ground. They were the scissors used for ordinary housework. After he had the scissors he said, "The woman will die." He added that the womb had become ruptured. He began to give her brandy just when he began to use scissors. Afterwards he said he should want more. He gave her brandy several times, felt her pulse, and asked her if she was in pain. The husband went for more brandy, and Peacock sent witness after him, telling her, "You follow him, and tell him she will die." Witness did follow him, and on her return to the house she found deceased lying as she had done previously. Witness left the house for a short time, and, hearing deceased shrieking, she returned to the house, and found deceased in great pain, knocking her head about and saying, "I am going as fast as I can; that man has killed me." Soon after that, about twenty minutes before two o'clock, she died. On the following morning, Mr. Peacock came to witness's house, and asked her if she was the woman who was at Woodward's on the previous night. Witness said "Yes," and he said he wanted a word or two with her. He said Mr. Woodward had been to him, and said that the death had been caused through his neglect. Witness said, "Sir, there was that come as should not have come." He said, "Yes, I know that, but it's not my fault." She told him she thought it was very strange for him to empty the vessel, as she had heard he did so. He said he did it to save the women the trouble. Witness told him a great many persons had been to examine it, and she expected it would be examined by another doctor. He said, "Is it there now?" She said it was, and he asked, "Could you fetch it to me?" She declined, but agreed to go with him to it. As they were going, he asked if they could go the back way, but she said they could not. Mrs. Clark joined them, and they all went to the privy and recovered the intestines, which he wrapped up in rhubarb leaves and took to the house. Witness whispered to Mr. Woodward that Peacock was going to take them away, and Woodward said he should not take them, and that if he was determined to take them he would fetch the police and put the doctor out.

Cross-examined: Was with deceased at her previous confinement. She then had very hard labour. Defendant attended her, and the instruments were used. It was then that he said the instruments must be used, or the child could not be born. Defendant did all that a doctor could do, so far as she could see. In attempting to deliver deceased, he was quiet and as slow and cautious as he could be. He told her to lie in a certain position, but she wished to have her own way. Defendant kept trying to save her, although he told her she could not live. After Peacock left, she seemed better, and said that she thought she should live.

Re-examined: What defendant did to save deceased was to give her brandy simply. It was between the birth of the child and the use of the scissors that she screamed. After she had brandy she dozed.

Hannah Clark, wife of George Clark, labourer, Hartshill, said she attended Mrs. Woodward's confinement. She remained with deceased till the child was born. After the birth of the child she saw defendant cut something in two, and after looking at it he put it into the chamber utensil, and cried out for some brandy. While Mr. Woodward and the previous witness had gone for brandy, defendant took the utensil downstairs to the privy. Witness afterwards saw the intestines in the privy. When defendant brought back the utensil it was empty.

Cross-examined: This was the first confinement in which she had attended deceased. It was true that whilst Mr. Peacock was attending Mrs. Woodward she did not see anything at all unreasonable. The doctor seemed to be attending to her, and she thought he did all he could.

Mr. Thomas Handford, surgeon, of Atherstone, said he had been in practice for thirty years. On the morning of Saturday, June 20, he was called to Woodward's house, where he was shown a portion of human intestines on a rhubarb leaf. He examined them. There were fully fifteen feet. There was a large portion of the small intestines missing—the greater part of the colon and the cæcum were missing, and the appendix to the cæcum. Fifteen feet would be nearly half of the intestines. They were in one entire piece. He observed the ends of the remaining intestines. They had evidently been cut. On June 21, by direction of the coroner, he made a post-mortem examination of the body of deceased in company with Mr. Nason. There were also present Mr. Hammond (Mr. Nason's partner); Mr. Lawson Tait, of Birmingham; Dr. Jolly, of Birmingham; and Dr. Brown, of Coventry. The three latter gentlemen attended on behalf of Mr. Peacock. A report of the result of the examination was presented to the coroner, and he now produced that in evidence. It was to the effect that the body was found to be well-developed. The abdomen and the uterus were much distended, but on examination the latter was found to be entirely uninjured. It contained the afterbirth and a portion of the umbilical cord. There was a rent in the vagina. A portion of the large and small intestines was missing, including the mesentery. It was not a fact that the woman died of rupture of the uterus. He considered that death resulted from the shock to the system, loss of the intestines, and loss of blood, and no doubt the laceration of the vagina. Rupture of the vagina was not necessarily fatal. It did not follow that if the intestines protruded the person would necessarily die. It was absolute and certain death if the continuity of the intestines was broken. The rupture of the vagina might have been caused by the introduction of the forceps or the hand. The vagina being ruptured a certain amount of the intestines would protrude, but he did not think that fifteen feet, or anything like it, would protrude spontaneously. One or two folds might. The fact of the large intestines having protruded led him to believe that force must have been used. If the intestines protruded, the proper way would have been to return them. It was the duty of the surgeon to prevent injury to them. He should not have cut them off. He could not think that it was right for them to be cut, as the result must be death. He should not think it possible for a medical man to mistake the intestines for the afterbirth, although he thought it was done in this instance. About eight inches of the cord was left with the placenta. The ordinary time for the separation of an afterbirth was about five or ten minutes, but if there had been urgent symptoms he should not have waited longer without removing it.

Cross-examined: In his own practice he did not know of a case where the afterbirth never came away at all. He did not know that he recollected reading of one. His evidence as to the time was simply with regard to ordinary cases. The rupture was at the upper posterior part of the vagina, where the intestines pressed most. It was a mistake which might be made when Mr. Peacock said it was a rupture of the uterus. Had heard of spontaneous laceration, which might occur apart from the surgical operation. He did not believe the rupture in question could have been caused by internal force. It was possible muscular force, by straining, might cause it in time, but he did not believe it was so in this instance. He did not know of symptoms of laceration. Supposing there were symptoms of laceration, it would be the surgeon's duty to deliver at once. If the intestines had protruded he should not have cut them. He denied that he had said at the inquest, "If I had been present I cannot say what I should have done." If it was on the depositions he did not say it. He signed the depositions, but they were not read over to him. He should have endeavoured to return the intestines. He did not know that there was any rule to guide a surgeon under the circumstances; but there was no rule to cut them. He should always endeavour to return them.

In answer to the Bench, witness said the cutting off of the intestines destroyed all chance of recovery. The protrusion of the intestines might cause death, but his opinion was that the removal of them accelerated death.

The Court having sat six hours, the case was adjourned, at six o'clock, until October 9, when it will be resumed, at Nuneaton. The adjournment for an extended period was

arranged in order to suit the convenience of the magistrates and the legal gentlemen.

Mr. Peacock, who was in custody, was liberated upon entering into his own recognisances.

Several medical witnesses were in attendance, including Mr. Clay, Mr. Tait, Dr. Jolly, and Mr. Wilders, from Birmingham, and Dr. Brown, of Coventry.

## FROM ABROAD.

### The Automatic Man.

Since the notice concerning this curious case which appeared in our last, we have received the elaborate account of it communicated by Dr. Mesnet, of the St. Antoine Hospital, to the *Union Médieale* for July 21 and 23, under the title, "Automatism of the Memory and Recollection in Pathological Somnambulism." This enables us to communicate to our readers a few additional particulars and some of the conclusions which an elaborate investigation of the case has led Dr. Mesnet to arrive at.

As we have already stated, the patient, twenty-seven years of age, had a portion of his left parietal carried away by a ball. Shortly afterwards he became insensible, and only recovered consciousness three weeks after, having in the meantime been transported from Sedan to Mayence. He was afterwards sent back to France, and at the end of a year had lost nearly all traces of the hemiplegia of the right side which had followed the accident. Three or four months after the injury, the paroxysms, which have rendered the case remarkable, began to appear, and have continued ever since, although they have varied in the frequency of their occurrence (from fifteen to thirty days) and in their duration (from fifteen to thirty hours). During these four years this man has continued to present two entirely different conditions. In his ordinary state he is sufficiently intelligent, and has gained his living as a clerk and as a singer at concerts; and since he has been in the hospital he has been handy in assisting the other patients. His health, also, is perfectly good.

His passage into a pathological condition is instantaneous and insensible. His senses become closed to all external impressions, and yet he seems to come and go and to act as if in full possession of his senses and intellect, so that persons unaware of his singular condition would never suspect it from anything which they observed on meeting or passing him. His carriage is easy and his countenance calm, the eyes being wide open, with dilated pupils. There is contraction of the brow and eyelids, with constant nystagmus, and a continuous movement of the jaw. If in a place he knows, he walks about entirely at his ease, while when this is strange to him, and when all kinds of obstacles are placed in his way, he endeavours, by aid of his hands, to gently guide himself through these. He offers no resistance to any movements impressed upon him, so that his direction may be changed or his pace changed, exactly as if he were an automaton. During the paroxysms all the instinctive functions and appetites are accomplished as in the healthy state, and he eats, drinks, smokes, dresses, and undresses at the usual times. These actions Dr. Mesnet is disposed to regard as automatic, the simple result of the habits of his waking hours continued during his sleep, for, on watching him while eating, he is observed to eat with gluttony, and without discernment, scarcely chewing his food, swallowing all that comes to hand without ever seeming satiated. So, also, he drinks whatever is given him, whether wine or nauseous substances, without manifesting any sign of the impressions produced.

The general sensibility of the surface is absolutely extinct, as this may be pricked, pierced, or submitted to the electric pile without any result. The senses of hearing, taste, and smell are entirely abolished, and various external organs may be irritated in any way without any common sensibility being manifested. Sight, also, is no longer influenced by external impressions; but sometimes the patient seems to have a confused perception of brilliant objects. *Touch is the only sense that persists, and places the patient in relation with the external world.* The whole procedure of the patient manifests the delicacy and subtlety with which this sense is employed.

The first of these paroxysms occurred in 1871, and they were during the year which the wound remained unhealed of more frequent occurrence, so that the intervals only lasted from five to six days, whereas since that period they have varied from fifteen to thirty days. After some premonitory heaviness of the head, the transition from health to disease takes place almost insensibly in a few minutes, and a conscious and fully responsible being becomes in an instant a blind instrument or automaton, obeying the unconscious activity of his brain, seemingly in the possession of a liberty which he no longer has. All his actions and motions are but the repetition of the habits of his waking hours. One peculiar feature not then found, however, is the development on the part of the patient of a desire for the subtraction and concealment of all objects which come under his hands. This propensity has always been manifested from the first paroxysm; and so irresistible is it, that when objects appertaining to others are not accessible, he conceals his own watch, knife, etc. On awaking from his paroxysm he has not the slightest recollection of what has occurred.

Dr. Mesnet mentions in great detail many examples of the mode in which the sense of touch called forth a whole series of connected actions. Thus, a walking-stick placed in his hand, and mistaken for a musket, called up the recollections of the late campaign and led to his performance of the various acts as if actually engaged in battle. A pen presented to him at once aroused the desire to write, and accordingly he wrote a letter to his general, impressing his claims upon him. It was found that if an impervious object were interposed between his eyes and the paper on which he wrote, the writing became irregular and illegible; and again, when water was placed in the inkstand in place of ink, he perceived the deception, although attributing it to some fault in the pen, which he frequently rubbed on his sleeve. The conclusion to be drawn from these experiments is, that vision here existed, and was necessary for the written expression of the ideas of the patient; but its field was very circumscribed, and was only aroused by the sense of touch, its exercise remaining limited to the objects with which it was brought in relation by this sense. While walking in the garden the patient would make his cigarette, light it, stamp out the lighted match, and smoke—all exactly as if in his ordinary state. But when his tobacco-pouch had been removed, and after he had sought for it in the usual place in the most natural manner, if it were placed before and close to his eyes he never perceived it. Put in his hand, he at once made his cigarette. If while lighting this the match were blown out, it was in vain that another ready lighted one was brought close to the cigar and close to his eyes, for he saw it not, even when it burned his eyelashes. This, again, showed that while the patient saw certain objects he could not see others, the sense of sight being, in fact, closed to all objects external to himself. He saw his own match, but not that which was offered to him.

The pathological condition of this patient cannot be confounded with the state of sleep and dreaming, for the dreamer is not always independent of the action of external influences, many of these being capable of giving or changing the direction of his dream. In this patient one sense alone retained its relations with the exterior, and, as far as this is concerned, impressions of this sense may with him, as with the dreamer, call forth corresponding cerebral action. The dream, too, vanishes spontaneously or on the slightest arousing of the senses; but in this patient the life of relation is suspended to such a point that it becomes impossible to arouse him, whatever efforts be made, and however violent the means employed.

With respect to the medico-legal bearings of the case, Dr. Mesnet observes:—"The disturbance which these functional perversions of the nervous system produce in the exercise of the life of relation, extends not only to the organs of the senses and the intellectual acts properly so called, but also sometimes arouses instinctive excitements, which deliver over their subject, defenceless and deprived of discernment and reason, to the most deplorable impulses. He acts with all the appearance of a liberty which he does not possess, and seems to have combined and prepared certain actions, when, in reality, he has been but a blind instrument, obeying the irresistible impulses of an unconscious will. In each of his paroxysms this patient, dominated by the impulse to steal, possesses himself of every object he can lay his hands on, and conceals them dexterously."

Small-pox is very prevalent in Newmarket and neighbourhood.

## REVIEWS.

*Autobiographical Recollections of the Medical Profession.* By. J. F. Clarke, M.R.C.S. London: Messrs. J. and A. Churchill. 1874. Pp. 537.

The author of this very interesting work has been long and favourably known to the profession, and with many of its most distinguished members has been in constant intercourse, arising in a great measure from his having been upwards of forty years on the staff of a contemporary, and from his long connexion with medical societies past and present. *Enjoying* an extensive general practice (for everything appears to be a labour of love with Mr. Clarke), he has found time to produce a delightful gossiping work—just the book to pack up in our portmanteau to read and enjoy in the country excursion so many of us are about to make.

To those of the author's standing it will bring up most pleasing reminiscences, whilst the younger members will be introduced, as it were, to some great and good men, like those described by Pope as "in general the most amiable companions and the best friends, as well as the most learned men I know," —such men, to wit, as Green, Brodie, Lawrence, Astley and Samuel Cooper, Liston, Vincent, Elliotson, Abernethy, Hall, Hodgson, Carlisle, Addison, Holland, etc.,—for with all of these and many more are we again brought in pleasing contact: men of whom the learned but somewhat surly lexicographer Johnson could not but have remarked, as he did of others, that we had all "found in physicians great liberality and dignity of sentiment, very prompt effusion of beneficence and willingness to exert a lucrative art where there is no hope of lucre."

How the members of our profession are too frequently imposed upon by persons well able to pay, Mr. Clarke gives a very amusing illustration as having occurred in the practice of the late Mr. Wardrop, whose opinion could always be obtained without a fee at any time by a needy patient, but who hated to be imposed upon; he disliked shams. Wardrop was in the habit of telling with much glee how he "served out" a "gratuitous" patient who had imposed upon his benevolence. During the time Wardrop was in the habit of giving advice in the morning to the poor, he was one day called out early to see a patient in St. James's-square. On returning to his house he observed an old gentleman, very shabbily dressed, alighting from a carriage with a coronet on the panels. He immediately recognised one of his "gratuitous" patients. He waited, unobserved, until the "old fellow" had turned the corner of Charles-street (where Wardrop resided), and then ascertained that his patient was the Earl of ——. In due course, and in his turn, the Earl was ushered into the presence of the surgeon, who rose from his seat and received the shabby nobleman with the greatest courtesy, and addressed him by his proper name and title. The detected impostor was thunderstruck, and anxious to beat a hasty retreat. But this was not to be allowed. Wardrop upbraided him with his meanness and duplicity, and eventually made him pay a guinea for every visit he had made. The sum thus received was considerable. He never saw the "nobleman" afterwards.

On the subject of medical incomes we quite agree with Mr. Clarke that they are usually much overrated—an opinion shared by the late Dr. Merriman, of Brook-street, who had as large, perhaps a larger practice than any obstetric physician of the time, and who, in his most prosperous year, never made more than £4000 per annum. Brodie, adds Mr. Clarke, never exceeded £13,000 per annum; and though Sir Astley Cooper is recorded to have made in one year the great sum of £24,000, it was acknowledged by him to be quite an exceptional amount. Abernethy's is mentioned at £10,000, and Liston's at £7000. Dr. Elliotson's income, it is stated, rose in one year from £500 to as many thousands.

Of the early history of the journal with which Mr. Clarke was so long and honourably connected, as of its founder and writers, we have a very interesting account. "The appearance of it was received nowhere with more surprise than at the Borough Hospitals of Guy's and St. Thomas's." The author might have added another institution in Lincoln's-inn-fields, at which for a long time it could only gain admittance by stealth; so much was this the case, that the late Mr. Clift, the first Conservator of the Museum, when binding the volumes, had them lettered on the back "The Stiletto," fearing the dreaded true title might be seen by the "great guns," and lead to a severe reprimand, as in the case of a gentleman still holding office in that institution, who did receive a severe reproof from Sir Anthony Carlisle for presuming to write to or for any journal, "especially the blackguard ——." In his "Recollections" Mr. Clarke omits to give what would have been a very interesting account of a scene in the theatre and the violent expulsion, by direction of Sir William Blizard, of the editor from the College by the "Robin Redbreasts," as he terms those stalwart Bow-street runners—nicknamed also "scarlet runners,"—Leadbitter, Gardner, Ruthvin, and Smith; who conducted their erest-fallen prisoner, with dishevelled locks and torn clothes, before the dreaded Sir Richard Birnie at Bow-street Police-office;—a treatment very different from that received not long ago by "the young gentlemen who now wield its thunder," when they met at a "hole-and-corner meeting in a back room in the Strand, in which they privately drew up a certain number of resolutions condemnatory of the College, which, if carried and acted upon, would," Mr. Clarke thinks, "have been ruinous to that institution." With singular modesty he omits all mention of the great share he had in discomfiting the host. The bold front he exhibited on that occasion, backed up by the good feeling of a considerable majority of those present, and the admirable tact and firmness of Mr. Cock, the President, without the aid of the "special constable," effectually disposed of the army of "resoluters."

Those of our readers old enough to remember them, will be struck with the correctness of the pen-and-ink portraits of the many members of the profession with whom the author came in contact: what more photographically correct than his description of Mr. Vincent as "a peculiarly shy man, just above the middle height; he walked quickly and somewhat clumsily, having the appearance and manner of a lawyer's clerk hastening to court, dressed rather shabbily in black." Mr. Clarke thinks he failed to impress his patient, at first certainly, with an idea of his real power; but we think it was Theodore Hook who said that "dear old Vinco" appeared to have eyes at the ends of his fingers, and was so much beloved by the Christ's Hospital boys. Again, speaking of Messrs. Guthrie and White, how true his portraits are—"Phrenologically the two men were striking contrasts; White had a large head, a somewhat heavy overhanging brow, clear, sagacious eyes, but denoting his indolent proclivities." (Too true.) "Guthrie's head was rather small, but indicative of energy and self-possession. His black piercing eyes were really remarkable. I do not recollect any member of our profession in whom these organs were finer or more characteristic." We remember hearing a well-known American physician say that Guthrie's eyes could look through a stone wall, so bright and piercing were they even to the last. Mr. Clarke is equally correct in his physical and mental delineations of S. and A. Cooper, Hodgson, Wardrop, Keate, Brodie, Dermott, etc. He makes no mention of Mr. Dermott's constant and perhaps most faithful of friends—viz., his large Irish wolf-hound. To some of his faults the author is very charitable; these, he states, were partly due to his erratic mode of teaching, and to the circumstances under which he was placed. Perhaps the author is not aware that to Dermott is due the annual annoyance of the registration required by the Council of the College of Surgeons of all students pursing their hospital studies; as he was very lax in requiring the attendances of his pupils, who, after payment of their fees, were allowed to return to the country to pursue their business, in some cases that of ordinary tradesmen; and then to come back to London at the end of the session to obtain their certificates and the necessary *grinds*.

Not only of men and events, but of the many past and present societies, anatomical schools, and journals, does Mr. Clarke give us most faithful details, which his readers will peruse with gratification and pleasure. Some of these notices we may perhaps be able to draw attention to on a future occasion, but meanwhile we heartily commend the work as a most interesting and entertaining production.

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*Contributions to Pathology and Surgery.* By Cæsar H. Hawkins, F.R.S., Etc.

Mr. Cæsar Hawkins has added another to the many obligations under which he has already placed the profession of which he is so distinguished an ornament, by reprinting in a collected form his many valuable essays and lectures, which have been hitherto scattered through a number of periodicals, and thus comparatively inaccessible. Many of the essays in these volumes have a historical value as records of important steps in the progress of pathology and surgery; but apart

from the interest they have thus acquired, there is scarcely one which has not some lesson therein, which makes it worthy of preservation in the permanent literature of the profession. We presume there is no educated surgeon who is not familiar with the more important of Mr. Hawkins's writings; but even these will well repay a re-perusal, if only for the pleasure of renewing acquaintance with the originals, to which subsequent writers have been indebted for so many now well-established facts. The clinical lectures may be commended as models of clear and comprehensive teaching. They exhibit a cautious and impartial judgment, combined with a definite statement of the author's opinion and advice, which, coming from one of so great experience, gives them an especial value for the student, not only for their teaching, but also as examples of scientific method. Moreover, there are passages in these books —as, for instance, in the Hunterian Oration, with which the first volume commences—which show Mr. Hawkins to be capable, when he chooses, of the most polished eloquence. We cannot refrain from one quotation :—

"Those who are inclined to an indiscriminate adoption of every novelty, and who find the bold and specious theoriser more seductive than the calm and cautious philosopher, and an unknown but foreign name more potent than one more familiar, but of immeasurably greater real weight, will do well to remember the forty years of laborious investigation spent by Hunter on his work on the blood and inflammation, canvassed and criticised and altered by a committee of his friends, and scarcely ended with his own life."

The subjects of the lectures and essays which follow are very various. One of the most important papers is that on Colotomy, with the accompanying analysis of forty-four cases of artificial anus. Since its publication (1852) the operation has been very frequently performed, and much fresh experience gained; but the paper remains one of the most valuable contributions to the literature of the subject. One important observation of Mr. Hawkins's, which has been since confirmed, is that "an artificial anus, if required for cancer in the rectum or sigmoid flexure, affords nearly, though not quite, as much chance of immediate success and of subsequent prolongation of life, as when performed for all other obstructions not malignant." And Mr. Hawkins adds, "The little influence which cancer thus shows in increasing the mortality may possibly arise from this circumstance, which I think I have observed—namely, that the more rapidly fatal cases of cancer of the intestinal canal are of the softer kind, in which obstruction is less likely to take place; and that the disease of the inner surface, frequently epithelial cancer, so often seen in the rectum, is less injurious to the general system than the softer carcinomatous coats of the intestinal canal."

The lectures on Tumours, which were published in the *Medical Gazette*, are also well known and appreciated. Of these, we think the best are those on tumours of the bones, and the introductory lecture treating of the mode of formation, characters, and classification of tumours. Of course in reading these, as throughout the rest of the book, the date of their delivery must be borne in mind, as well as the fact that the author has refrained from altering or modifying them by the light of subsequent experience. We think Mr. Hawkins was wise in not attempting any revision of his writings, but simply reprinting them, for, after all, although doubtless the opinions expressed on some subjects differ materially from his present views, yet in others the generally accepted doctrines are again approximating to those taught by the author when these lectures were first delivered. Some remarks on bloodletting in injuries of the head, published in 1832, show that Mr. Hawkins was not one of those who taught extreme views on the use of this remedy, and that he was quite alive to the evils resulting from its abuse.

A lecture on Hydrophobia contains an admirable description of this disease, founded upon a case which was under Mr. Hawkins's care in St. George's Hospital in 1844. It would be well were the real symptoms of this disease more widely known, for much needless alarm might thereby be prevented. Mr. Hawkins points out that a dread of water is by no means a constant symptom, and that, in fact, the relief given to the patient by washing out the mouth and fauces is so great, that he will often risk the most horrible convulsions for the sake of the temporary comfort thus obtained.

It is well to remember, also, that Mr. Youatt states that rabies in the dog is usually attended with excessive thirst, which the animal makes every effort to assuage by constant drinking.

The paper on the Diagnosis of Foreign Bodies in the Larynx is one of much practical interest. The difficulties of arriving at a correct opinion are, doubtless, often great, but of course have been rendered immeasurably less since the invention of the laryngoscope; and Mr. Hawkins points out the danger of delay in operating when the diagnosis has once been made.

An account is given of the first successful case of Ovariotomy which occurred in a London hospital, in a clinical lecture delivered in 1846. The mode of operating and the treatment are not very different from those now adopted; but the mortality quoted by Mr. Hawkins shows, when compared with that which now obtains, how great has been the progress made in the diagnosis of these cases—a point which is especially apparent from the fact that, out of 108 cases quoted from a table of Mr. South's, it was impossible to complete the operation in twenty-four.

The lectures on Cancer of Cicatrices, and on Cheloid Tumours, draw attention to diseases previously but little known, and are followed by several lectures on Cancer, in which its different degrees of malignancy are well pointed out. It would be difficult to add anything to the lecture given in 1844 on the various ulcers of the tongue, in which the differential diagnosis is made particularly clear.

A paper on Congenital Cystic Tumour of the Neck contains an account of a dissection by Mr. Athol Johnson of one of these cases, which proved fatal from dyspnœa, and is sufficient to warn the surgeon of the danger attending attempts to remove these tumours.

Other lectures there are on Chronic Inflammation of the Testis, on Cancer of the same organ, on Aneurism, and on Diseases of the Bones and Joints, which are especially worthy of attention, and which show that originally good work has a permanent value and interest, which is in these writings the less affected by lapse of time, because they contain so little of theory and so much of clinical observation and experience.

# FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, June 15.

Annual Meeting of the American Medical Association at Detroit.—Sectional Work.—Section on Practice of Medicine, Materia Medica, and Physiology: Bulkley on the Management of Eczema—Farnsworth on the Therapeutic Uses of Ammonia—Cultivation of the Cinchona Tree in the United States—Vance on the Mechanism of the Encephalic Circulation—Buckham on Uræmia—Bulkley on a New Antipruritic Remedy—Gerrish on Hydrophobia—Dr. Seguin on his System of "Mathematical Thermometry." Address by Dr. Davis, Chairman in the Section of Medicine, Materia Medica, and Physiology—Review of the Advances in each Department.

In my previous letters I gave you a synopsis of the matters of general interest which occupied the attention of the American Medical Association at its recent meeting. The work of the various sections was not less important, and, indeed, as an evidence of genuine professional labour actually accomplished, was, in its prospective results, of more signal moment. The Section on Surgery is always the most popular, for it enlists the sympathies of a large number of the delegates on account of the novelties of views, of apparatus, etc., and it usually elicits a more animated discussion than is practicable in any other section, although those of Practice of Medicine and Obstetrics present many attractive features, especially when such men as Dr. J. Marion Sims, of New York, Dr. Washington L. Atlee, of Philadelphia, and others of established reputation, illustrate the latter with the light of their experience. Some of the papers offered this year in the sections were provocative of much debate, and it is probable that next year we shall have some of the questions re-opened for discussion, after the lapse of twelve months of reflection.

*I.—Section on Practice of Medicine, Materia Medica, and Physiology.*

In this comprehensive grouping several interesting papers were presented, Dr. N. S. Davis, of Chicago, being the chairman. Dr. Bulkley, of New York, read an interesting paper

on the "Management of Eczema," in which he referred to the various remedies proposed for it. Eczema he defined as a catarrhal inflammation of the skin, in which there is first a rhythmical contraction of the capillaries, and finally stasis, accompanied with a proliferation of cells of the skin within the rete mucosum, and even in the derma; while in chronic eczema there is infiltration of cells (whether from proliferation or not is not known), which causes thickening of the skin. To cause eczema some special influence must direct the course of dermatitis—doubtless a constitutional dyscrasia is the cause; some blood poison; and it depends upon blood conditions as surely as phthisis, gout, or rheumatism. Eczema seems to be self-limited. This does not militate against local treatment, however. Among the remedies applied by him in his practice, with varied failures and successes, were arsenic, glycerine, cod-liver oil, tar ointment, mutton suet and lard, carbolic acid, and a solution of tar, water, and caustic potash. Much that is called eczema is not so. True eczema is not a local disease. Arsenic is not a specific. In reply to an inquiry as to the doses in which carbolic acid was given in cutaneous diseases, Dr. Bulkley replied that he had administered a one-grain pill before breakfast, gradually increased to four or five grains daily. A discussion on the value of arsenic applied externally in similar cases, followed, and the question was asked whether eczema was a distinct disease, or dependent upon some constitutional derangement. Dr. Bulkley mentioned that electricity had been used with good effect, and also tar ointment externally and arsenic internally, while others had obtained excellent results from the use of sulphur.

Dr. Farnsworth, of Iowa, then read a paper on the "Therapeutic Uses of Ammonia" in its various forms of preparation, but it was not suggestive of any novelty as to modes of employment in general practice. He gave some interesting cases, however, illustrating the rapidity of action of this diffusible stimulant. In a case related by him, where respiration was suspended during the administration of chloroform, he injected three drops of aqua ammoniæ, diluted with water, into the subcutaneous tissue of the arm. The patient rallied at once, and complete recovery took place. In a case of bronchitis, in a debilitated patient, an opiate had been incautiously given; the secretions were suspended, and asphyxia seemed imminent; five drops of aqua ammoniæ, diluted with a drachm of water, were injected under the skin. The effect was immediate: the circulation was aroused, a large quantity of mucus was discharged from the lungs, and the arterial colour of the circulation restored. The patient recovered under the continued administration of carbonate of ammonia and the alcoholic stimulants. In two other cases of bronchial obstruction he used endermic injection of ammonia with marked success. He was called to a case of opium poisoning, in which the patient had taken somewhat over an ounce of tinct. opii at 10 p.m., by mistake for port wine. Extremities were cold, respirations from four to six per minute, pulse full, lips livid, and he was unable to rouse him to consciousness. He injected into his arm three drops of aqua ammoniæ. It increased the respirations and improved the colour of the circulation. A second injection was given, other means of resuscitation were used, and the patient gradually recovered. Inhalation of muriate of ammonia has been found beneficial in asthma and bronchitis. An apparatus has been contrived for inhaling the gas, when just formed. Very decidedly beneficial and very speedy relief is afforded. It is to the disease what the endermic injection of morphine is to an acute pain. This method of application has been tried with success in aphonia from cold or from catarrhal affections. Nasal catarrh is benefited by this apparatus.

The Cultivation of the Cinchona Tree in the United States is a subject of much local interest, and a committee was appointed in 1868 to advocate it, but thus far national legislation has been invoked in vain.

Dr. R. R. A. Vance, of New York, presented an elaborate paper on the "Mechanism of the Encephalic Circulation," in which the conclusions arrived at were as follows:—1. Atmospheric pressure operates in such manner as to keep the fluid contents of the skull at all times the same. 2. The heart can, under certain circumstances, exert a compressing influence upon the encephalic structures. The relative quantities of arterial and venous blood and extravascular serum vary with—1st, cardiac contractions; 2nd, respiratory movements; 3rd, sleep and wakefulness; and 4th, mental excitement and repose.

Dr. F. R. Buckham presented a valuable paper on "Uræmia," in which he took issue with the teaching of any authority, however celebrated, when such authority states directly or by implication that uræmia is an effect, a product, or sequela of albuminuria. He was satisfied that uræmia can exist, and does exist, independently of albuminuria, without the destruction of a single tubulus uriniferus, without a trace of albumen in the urine, and without any evidence of disease of the kidney whatever; and that consequently when the two conditions are found together they simply co-exist, and that a much greater number suffer from uræmia who have neither Bright's disease nor uræmic eclampsia than are to be found who have either or both of these diseases. The fact that uræmia may exist independently of albuminuria has been established by between 700 and 800 analyses, and Dr. Buckham gave detailed statements of several cases. He urged physicians to make careful quantitative analysis in all cases coming under their care in order to get at the truth of these matters. The paper excited much interest.

Dr. Bulkley, of New York, read a paper on "A New Antipruritic Remedy," being powdered camphor and hydrate of chloral, one drachm each, in one ounce of ointment of rose-water; the camphor and hydrate united before being added to the ointment, forming a transparent, colourless fluid, of the consistency of glycerine. The compound was also soluble in almond oil, alcohol, and ether. Care should be taken in the application, as if the parts have been excoriated its use is very painful. Eighteen months ago Dr. Bulkley presented to the profession, for the relief of the itching of cutaneous affections, a *liquor picis alkalinus*, prepared as follows:—Potassa one drachm, tar two drachms, water five drachms; dissolve the potassa in water, and the tar in water, and unite. Dose half a teaspoonful internally, always diluted. One part of the above to twelve of water may be applied locally; if there is much redness, one part to five or ten of water. This solution, although of great value in many instances, has failed as an antipruritic in some cases, and hence the new remedy suggested, which we believe has also been recommended in localised neuralgia as an external application.

Dr. Gerrish, of New York, then presented a paper on "Hydrophobia." He gave a history of the disease, tracing it back to remote ages, finding mention of it in Homer, and showing how widely it has prevailed at different times in many countries. The fewest attacks occur in the months of September, October, and November, and males of the canine species are more affected than females. Dr. Gerrish stated that the modern history of hydrophobia refers principally to Europe. The oldest report of scientific interest that we can trace refers to wolves afflicted with rabies in Franconia in 1271. Contrary to their usual habits, these animals spared the herds and flocks, and attacked shepherds in the field, and followed human beings into the towns and villages. Upwards of thirty men fell victims to these attacks. Canine madness prevailed considerably in Spain in 1500. In 1590 rabies raged among the wolves in the province of Monthelliard. In 1604 it prevailed in Paris. There is no mention of it again until 1691, when the heat of summer proved insufferable; the crops withered for the want of rain, animals died in great numbers in Italy, and dogs went mad. Seven outbreaks of rabies occurred in France, two in Germany from 1719 to 1721, in Hungary 1722 and 1723. The malady was rife in London in 1750, in Philadelphia in 1779, and in the West India Islands in 1783. It was not until 1803 that foxes were discovered to be affected by rabies. Blaim tells us that in 1806 rabies in the dog became so prevalent in the vicinity of London that for weeks together a day seldom passed without his being consulted in one or two cases. The kingdom of Würtemburg was ravaged by it in 1808 and 1809. The Government ordered a report to be published on this subject in 1829, which contains particulars of these outbreaks. From 1803 to 1820 is a memorable period in the history of hydrophobia. In 1810 it spread rapidly through southern Russia, and the same year it appeared in America, in the State of Ohio, where it destroyed dogs, wolves, besides other domestic animals, and no small number of human beings. In 1815 it was raging in Denmark. Blaim tells us that it was on the increase in England in 1820, and for three or four years was alarmingly common. During the years 1819 and 1829 rabies was rife in Italy, and Brera speaks of a wolf which bit thirteen persons, of whom nine died hydrophobic. Wirst, especially, notices the period from 1819 to 1820 as remarkable for rabies amongst the foxes of Switzerland and Germany. In 1830 the subject of rabies attracted great attention in England, and evidence on the subject

was laid before a Select Committee of the House of Commons. Sir Benjamin Brodie, Professor Coleman, Messrs. William Youatt, Morgan (of Guy's Hospital), Earle (of St. Bartholomew's), Benjamin Travers, and others were examined. Some idea of the state of popular terror, if not of the number of bites by rabid dogs, may be gleaned from Mr. Youatt's statement that he had applied lunar caustic to about 400 people bitten by dogs, and from that of a surgeon of St. George's Hospital that he had operated on 4000 without an accident. Mr. Henry Earle, of St. Bartholomew's, furnished unmistakable evidence of the increased frequency of the disease in England, and stated that he had seen twenty-five cases of hydrophobia in man in twenty-five years, whereas his father had seen but one case in fifty years. There has been a decided abatement of this disease during the second quarter of the present century, as compared with the first. The cause of this is owing in great measure to the law abolishing the use of dogs as beasts of burthen. The dog tax has also lessened the number of useless curs. The fewest attacks occur in the months of September, November, and December. In 1840, '41, and '42 the malady was very destructive in Lyons and other parts of France. In the space of thirty years no less than 779 dogs have died of rabies in the Lyons veterinary schools, giving a yearly average of twenty-six cases. The largest number occurred in the months of June and April. In the year 1864 the city of Lyons was in great commotion, owing to the terrible frequency of rabies canina.

Dr. Seguin, of New York, gave an exhibition of the workings of his system of "Mathematical Thermometry." The instruments differ from the old ones in two points—first, zero is at the point of human health (old 38° 40″ F.), instead of at the point of melting snow of the weather thermometer; second, a special instrument is devised to measure the heat of limited surfaces, like the forehead of a student, the seat of formation of a tumour, etc. These instruments serve to elucidate the new method of observation advocated by Dr. E. Seguin. Instead of tracing the march of disease by curves difficult to make, more difficult to read correctly, he uses only figures, and sums up all the phenomena—heat, pulse, and inspiration—by figures, which, tabulated by days and weeks, permit a mother to be more positive in her appreciation of the condition of her sick child than many physicians can realise by simple guessing.

The annual address delivered by Dr. N. S. Davis, chairman of this section, before the whole Association, was an able document. It reviewed the advances in practical medicine, materia medica, and physiology during the past year. The most interesting progress made in the latter department was in relation to the functions of the brain and nervous system. He referred particularly to experiments made at home and abroad for the purpose of determining more definitely the functions of particular parts of the brain. The novel methods adopted by these experimenters, consisting in some instances in the injection of distinctive substances, coloured with aniline, into the substance of the brain, and in others in the application of electric and galvano-electric action to limited portions of the cerebral hemispheres, and the striking results that followed, were thought by many to have brought a new era in the development of cerebral physiology, and to have overthrown many of the opinions hitherto regarded as well founded. From a careful review of all these recent and highly interesting experiments, their combined results appear to confirm the previous views concerning the functions of different portions of the brain, instead of overthrowing them. And if they have added anything to our physiological and anatomical knowledge, it is in indicating more definitely the exact points or localities in the periphery, where the striated fibres forming the medium of communication between the central ganglia—as the corpora striata and optic thalami—and the gray matter of the convolutions touch the latter.

Dr. Davis thought that we were attributing too much to nerve influence and too little to properties inherent in all living structure. Every system which does not recognise these elementary qualities of living matter is defective both in physiology and as a basis of pathology.

No special progress has been made in materia medica. What is needed is not the addition of new articles, but further knowledge of what are already in the officinal list. The idea that diseases have undergone marked changes, and are less virulent than in the first part of the century, and that this has caused milder practice, is prevalent, but a study of the facts will show that the moderation of disease has in reality followed the moderation of medical treatment. The practitioner who plies his patient with wine, whisky, and brandy, is as certainly applying a powerful sedative as his ancestor in bleeding or drugging with veratrum. No department of medicine more needs reform and systematising in its nomenclature and in its facts and theories than materia medica. In the department of practical medicine the past year has revealed no striking discoveries either in regard to the nature of sickness or the method of treatment; yet it has been characterised by a genuine progress that is worthy of careful study.

After denouncing the tendency to exclusive views of pathology and the causation of disease—one set of observers, for example, ascribing all morbid conditions to germs; another restricting his methods of diagnosis to thermometrical explanations, and so on,—Dr. Davis stated that his object was simply to attract attention to what has appeared to him the strongest barriers in the way of genuine progress both in the science and art of medicine, namely, incomplete observation of facts, deductions from inadequate premises, and the constant use of mere theoretical assumptions or suppositions as though they were demonstrated facts. It is the indulgence of these practices that actually keeps one half of the professional observers busy in correcting the errors and disproving the assumptions of the other half, and fills our literature with endless contradictions.

## GENERAL CORRESPONDENCE.

### UNAUTHORISED PUBLICATION.

Letter from Sir James Paget, Bart.

[To the Editor of the Medical Times and Gazette.]

Sir,—The *Pictorial World* of last week contains an abstract and an illustration of a lecture given by me at St. Bartholomew's Hospital. I beg that you will allow me to state that the editor of that journal has acted in direct opposition to my wish.

Some weeks ago a person, who said he was an artist connected with the journal, called on me and asked leave to make drawings from some of the illustrations of my lecture. I instantly and positively refused, and wrote to the editor that nothing would be more offensive to me than the publication which he proposed. I heard nothing further from him, but he has done what I begged him not to do.

I venture to hope that I am not thought likely to be guilty of encouraging the appearance of my name in newspapers; but lest anyone should suppose that I have even permitted the publication to which I have referred, I desire to show that I did my best to prevent it. I am, &c.,

1, Harewood-place, July 28. James Paget.

### THE PATHOLOGICAL EXAMINATIONS AT THE COLLEGE OF SURGEONS.

Letter from Mr. Frederick J. Gant.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your impression of last week, a letter from Mr. Flower opens with the remark—"A small work has recently been published, entitled 'A Guide to the Examinations at the Royal College of Surgeons of England,' the intention of which appears to be to frustrate, as far as lies in its power, the main object for which the Council of the College has long been striving in instituting practical examinations."

As the author of that work, will you allow me to say that no such intention as that suggested was ever contemplated by me, and, indeed, is entirely foreign to my professional sympathies. My object, as plainly stated in the introduction to the work, is, in the first place, to set forth what the College, "as an examining board, has done and is doing, to sustain and extend the educational character of the profession, and to protect the just rights of the public in regard to the qualifications of men who are licensed to practise surgery." On the other hand, and consequently, "to all who are preparing, or about to prepare, for the professional examinations at the College, a proper knowledge of the nature and direction of such examinations cannot fail to be useful."

Candidates for the diploma of Member or Fellow, having had their attention directed to the whole course of examination, as to the series of anatomical and pathological preparations, the

surgical instruments and apparatus, and the examination papers, will thus be led to acquire that *kind* of knowledge, practical or otherwise, which the regulations of the College demand; and I submit, therefore, that a guide to that end cannot in any way be designed to frustrate the object which the Council has long had in view. I am, &c.,

Connaught-square, W., July 27. Frederick J. Gant.

## CHILDBIRTH AFTER OVARIOTOMY.

Letter from Dr. L. J. Martin.

[To the Editor of the Medical Times and Gazette.]

Sir,—As the state of health of patients who recover from ovariotomy is still of interest for some years after the operation, I send you notes made by the Resident Surgeon of the Lying-in Hospital here of a woman upon whom Mr. Spencer Wells successfully performed ovariotomy in 1871.

Sarah H., aged 32, native of England, married fifteen years; six children, the last on April 11 in the Lying-in Hospital. It weighed seven pounds and measured twenty inches, was well nourished, and seemed quite healthy. *The right ovary was removed by Mr. Spencer Wells in December*, 1871, being eighteen months after her fifth confinement. The patient when in the hospital seemed the picture of health. She had a very easy labour of seven hours' duration.

I am, &c., L. J. Martin, M.D.

126, Collins-street East, Melbourne, Australia, April 21.

# REPORTS OF SOCIETIES.

## OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 3.

E. J. Tilt, M.D., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Herbert Cooper, L.R.C.P. Edin.; Charles Francis Lewis, L.R.C.P. Edin., Henfield; Robert Alex. Lithgow, L.R.C.P. Edin., Henfield; Alex. Paterson, M.D., Bahia; and W. B. Slayter, M.D., Halifax, Nova Scotia.

Dr. John Williams and Dr. Clement Godson's report on the specimen of Acephalous Embryo exhibited by the latter at the last meeting was read. At the posterior border was a slight ridge similar to a margin of the skin around a recent cicatrix, and there was a small, rough, hard tubercle which projected beyond the surrounding surface, and on dissection this was found to be continuous with the vertebral column. From these appearances the acephalous condition may be regarded as the result of amputation.

Dr. Daly, of Dalston, exhibited a specimen where a Tumour the size of an orange occupied the Fundus of the Uterus. There was also a small ovarian cyst in the left side. The late Dr. Tyler Smith had removed a polypus from this patient some years back. Twelve months since she suffered from profuse flooding. Ice, gallic acid, and rest relieved this. The uterus was fixed in the pelvis. Between the attacks of hæmorrhage there was profuse and continued fetid discharge. Vomiting had been almost persistent during the last four months of life, and nothing relieved it. There was extreme emaciation. Death resulted on June 2. The lower portion of the uterus was in a sloughy condition, and it was a question whether it was malignant or disintegrating fibroid.

Dr. Playfair thought it seemed to be a fibroid growth with malignant degeneration.

Dr. Godson inquired as to the character of the discharge, the presence of pain, and the fixity of the uterus, points which would throw light upon the diagnosis.

Dr. Hayes asked what was the condition of the other abdominal organs.

Dr. Routh suggested a microscopic examination of a section of the tumour.

Dr. Brunton inquired if ergot had been tried.

Dr. Daly, in reply, stated that the uterus was fixed. The discharge was watery and offensive. The pain not so severe as usually met with in cancer. There was no cancerous infiltration. The bladder and rectum were not involved, though the latter was interfered with by the pressure of the tumour.

Dr. Tilt requested Dr. Hayes and Dr. Potter to report further upon it.

Dr. Wiltshire exhibited a specimen of a Fœtus where the Placenta was Attached to the Head.

Dr. John Williams exhibited a specimen of Calcified Fibroids of the Uterus, the growths being distinct and well marked.

Dr. Edis referred to a similar case, though somewhat more advanced, that he had exhibited to the Society in February, 1869, where some of them had commenced to slough, the patient dying from exhaustion.

Mr. Wm. Ross Jordan, of Birmingham, exhibited an Intra-Uterine Stem with an inflatable indiarubber ball pessary attached, to keep the former in position, for the relief of flexions and displacements of the uterus. The principal advantages consist in there being no tube attached, thus removing a source of much annoyance to the patient. It cannot be removed by the patient herself, and thus its constant use is insured. Whilst the stem keeps the uterus in its proper position and form, the elasticity of the ball or pad allows all the freedom of movement to the uterus which nature can possibly require. The pad can be distended to any degree, and need not cause over-distension of the vagina. The pad being perfectly soft, gives a comfortable support to the cervix, avoiding the pain sometimes caused by the hard and inflexible vulcanite pessaries. It cures the flexion without simply changing it into a version. The ball is inflated by inserting a movable metal tube into a valve, injecting the air, and slightly rotating the tube, which closes the valve, and is then removed, leaving the pad permanently distended to any required extent. It does not interfere with coitus.

Dr. Edis thought it was a very ingenious arrangement, but doubted whether it would be prudent in married patients to allow coitus, as the intra-uterine stem being pressed against the fundus might cause injury to the uterus.

Dr. Barnes reported that in Dr. Kesteven's case, exhibited at the last meeting of the Society, there was no fluid in the post-cranial bag; there was nothing, in fact, to add to the description already given.

Dr. Heywood Smith's report on Dr. Hayes' specimen was to the effect that, though a considerable portion of the malignant mass was contained between the folds of the broad ligament, yet the site of its origin—whether in that situation or from the pelvic walls—there was not sufficient evidence to prove.

Mr. Robert Gray, of Armagh, related a case of Separation of the greater part of the Cervix Uteri during Labour. The patient had been in labour twelve hours when he first saw her; the head was then about half-way through the pelvis, surrounded by about half an inch or more of the anterior portion of the cervix uteri, which was thick, soft, and congested. It had a pulpy feel to the touch, much like the feel of a solid clot of blood. Passing round to the posterior portion, it was separated from the body, having a ragged, uneven margin; there was a slight oozing of blood from the vagina. The separated portion was removed, the forceps applied, and a living child delivered. There had been incessant vomiting before delivery; opium and ergot were administered. She complained of smarting inside the vagina. Injection of water with Condy's fluid was resorted to daily. The pulse sank to 80, the temperature remaining steadily at 96° Fahr. the attached ring separated completely on the fourth day. Recovery ensued. The only cause assignable for the laceration was pressure on the cervix between the head and pelvis.

Dr. Tilt read a very exhaustive paper "On Lymphangitis in Pelvic Pathology," his conclusions being condensed in the following propositions:—1. Pelvic cellulitis, benign or septic, originates in the lymph spaces, and in the capillary lymphatics that have been wounded in some lesion of the utero-vaginal mucous membrane. 2. Wherever situated in the pelvis, cellulitis follows the same course, but varies in name and in symptomatology, according to its topographical disposition, and to the organs and the tissues that circumscribe it. 3. From the patch of capillary lymphangitis implicated in a mucous membrane lesion, inflammation may spread to one or more of the nearest lymphatics, and may be benign or septic. 4. One lymphatic may pass on inflammation to another, so that a continuous chain of purulent lymphatics may extend from the septogenetic lesion to the lumbar lymphatic glands; and such acutely inflamed lymphatics often inflame their surrounding cellular tissue, their glands, and proximate organs. 5. When lymphatic glands do not succeed in barring the progress of inflammation, they also inflame their surrounding cellular

tissue, and may thus cause an internal bubo wherever there be a pelvic lymphatic gland. 6. Occasionally peri-uterine inflammation has no other origin than this frequent origin of abscesses of the broad ligament. 7. Purulent lymphatics on their way to the lumbar glands may inflame the sub-serous cellular tissue in the iliac region, and thus cause iliac abscess. 8. The sub-serous lymphatics and the peritoneum are so intimately united by physical contact and physiological action, that it is almost impossible for sub-serous lymphangitis not to cause peritonitis. 9. The sub-peritoneal lymphatics being continuous with, and contiguous to, those of the ovary and the oviduct, they may be inflamed by sub-serous lymphangitis, particularly when it is septic. 10. The contamination of the blood by lymphatic pus leads to the inflammation of those parts that are in physiological connexion with the lymphatic system, such as the serous and synovial membranes and the spleen, whilst phlebitis more frequently causes metastatic abscesses, if it be not their sole cause. 11. Though often overlooked in post-mortem investigations, sporadic puerperal lymphangitis is not uncommon, but is more frequently met with in connexion with, and eclipsed by, phlebitis. 12. The worst cases of puerperal lymphangitis have their modified counterpart and their subdued presentment in non-puerperal pelvic pathology, and, more frequently than is admitted, lymphangitis is the cause of speedy death from uterine operations. 13. Whether women be poisoned by puerperal lymphangitis or puerperal phlebitis, the general symptoms are the same in nature and in intensity, and the local symptoms vary according to the amount and to the variety of its primary and of its secondary lesions. 14. The increase in size and in number of pelvic lymphatics during pregnancy, and their increased functional activity, strongly support the rule not to operate on pregnant women. 15. As the liability to puerperal lymphangitis is in direct proportion to the number and to the gravity of lesions inflicted on the utero-vaginal mucous membrane by tedious labours, it is advisable to shorten, by the use of the forceps, according to modern practice. 16. The bathing of a puerperal wound in an ichorous discharge is so dangerous, that disinfecting vaginal injection should be made so soon as the lochial discharge becomes in the least offensive. 17. The innocuity of injecting a solution of tincture of iodine into the womb immediately after delivery, and of a solution of perchloride of iron very soon afterwards, warrants the injunction to inject into the womb some strong disinfecting substance whenever the lochial discharge be fetid. 18. The frightful mortality that has attended some epidemics of puerperal lymphangitis justifies the horror of large maternities entertained by the profession.

Dr. Palfrey did not altogether agree with the author as regards the frequency of this disorder. It was, without doubt, more common in maternity hospitals than generally believed, and yet, though he was attached to one, he had never seen a case, and in the London Hospital they had never lost one. No proper comparison could be made between the London and Paris hospitals, the ventilation and hygienic arrangements in the latter contrasting unfavourably with the former. He would ask whether the author advised injecting iodine into the uterus three or four hours after labour, and whether there was no fear of the fluid passing through the Fallopian tubes into the peritoneum. He had seen one case where it was fatal. In another, Dr. Head injected the perchloride of iron into the non-pregnant uterus; death occurred shortly after, and iron was detected post-mortem in the peritoneal cavity. He thought it was not prudent at any time to inject fluids like tincture of iodine and the perchloride of iron into the uterus; the results were often most disastrous. He would ask whether the author considered pelvic cellulitis and lymphangitis to be one and the same condition. He had never seen glandular enlargement in the pelvis in pelvic cellulitis, and it was not, as a rule, a fatal disorder. Remembering that what the author taught would go forth to the world, he desired to express his dissent from the views enunciated respecting the harmlessness of intra-uterine injections. If it was so difficult for fluid to travel along the Fallopian tubes, how is it that semen often traverses them, and we get extra-uterine pregnancy as the consequence? He considered it was very easy for fluid to pass. *Apropos* of a remark of the author, that everyone had backed some form of intra-uterine stem, he begged to say that he himself had never done so. He had incised the cervix in some 300 cases, and there was no operation so successful. It was one of the grandest operations we had for the relief of suffering and the cure of sterility.

Mr. William Ross Jordan considered the Fallopian tubes different in the non-pregnant uterus and in the pregnant one; semen would pass in the one, but not in the other. He knew of a case where Condy's fluid, injected into the uterus, had found its way into the peritoneum and caused serious consequences.

Dr. Savage looked upon every inflammation as a lymphangitis. There was no part of the body in which cellular tissue was absent, and this was permeated by radicles. It was open to question whether matter was propagated beyond glands through the lymph-tubes. In the case of a punctured wound of the extremity, the lymphatics were often inflamed up to the glands in the axilla or groin, as the case might be, but they did not contain pus. The lining membrane of the uterus contained the same kind of radicles as other cellular tissue. Slight operations were often followed by death. In division of the cervix he had seen death in three cases occurring within nine days. Lymphangitis was very frequent. Though fluid injected into the uterus can gain access to the Fallopian tubes, yet in the case of the spermatozoa it was different—they did so by means of ciliæ. He had never used iron or iodine in puerperal cases, though he had in certain forms of fibroid. He thought there were some omissions in the paper, but still it was a valuable contribution on the subject, and he had learnt a great deal.

Dr. Tilt, in reply, stated that he had not represented the belief in the frequency of lymphangitis to be generally admitted in France and Germany, but he maintained that if half a dozen earnest workers could find a considerable number of cases of puerperal lymphangitis in several of the Paris hospitals during the last four years, similar cases must certainly occur in London hospitals; and he would beg hospital men to look to the lymphatics in cases of speedy death after operations on the pelvic organs. He had not denied the possibility of some fluid passing from the oviducts to the peritoneum, and he was glad to have elicited trustworthy evidence of two cases in which some of the perchloride of iron injected into the womb had been found in that part of the peritoneum that surrounds the fimbriæ; but he maintained that this was of exceedingly rare occurrence, and that, if otherwise, such cases would not be quite exceptional, and they would have frequently occurred in Paris, where, during late years, it has been the practice in some hospitals to wash out the womb with a strong solution of alcohol or carbolic acid whenever the lochia became fetid. He therefore believed that, rather than let fetid secretions remain pent up in the womb after delivery, it was better for the patient to run the infinitesimal chance of the disinfectant passing into the peritoneum. He was fully aware of the value of surgery in uterine therapeutics, and believed the present tendency was to place too great a trust in surgical measures for the treatment of diseases of women. In conclusion, he begged to thank the Society for their patient attention to and reception of his paper.

## OBITUARY.

### CHARLES WRIGHT SMERDON.

The grave has recently closed over the remains of one of the oldest and most honoured inhabitants of Clifton, and it will be long indeed ere his fine familiar face and form are forgotten. Mr. Smerdon descended from an ancient Cornish and Devonshire family, was borne in March, 1786, at Ashburton, in Devonshire, of which place his grandfather, the Rev. Thomas Smerdon, was rector as well as head master of the grammar school there, and there Mr. Smerdon was educated. This school was at the zenith of its popularity from 1765 to 1787—the birch flourishing in full predominancy; and Gifford, afterwards editor of the *Quarterly Review*, and the celebrated Doctor Ireland, afterwards Dean of Westminster, pupils there. Mr. Smerdon was professionally educated at Guy's Hospital, and became a Member of the Royal College of Surgeons in 1812; he afterwards settled in Clifton, and ultimately for many years did one of the largest provincial practices. Devotedly attached to his profession, most painstaking in whatever he undertook, simple and unpretending in manner, highly honourable in his intercourse with his fellow-men, in politics a staunch Conservative, kind and generous wherever generosity was required, his life was one of unsurpassed sincerity and uprightness. He was indeed the true type of a Christian gentlemen, and his memory will long be held in loving remembrance by all who had the privilege of his friendship.

He died on June 22, lamented by all—the poor, to whom he was a munificent benefactor; the rich, to whom he was a sincere and trusted friend.

## MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 23rd ult., viz. :—

Boase, William Francis Fookes, L.R.C.P. Lond., Plymouth.
Bott, Henry, Bourne.
Briggs, George Jeremiah, Hull.
Brown, Walter, Tetbury.
Carter, Albert, L.S.A., South Lambeth-road.
Davison, Rashell Thomas, Tritlington.
Forty, Daniel Herbert, Shillingford.
Griffiths, Cecil Niel, Cheltenham.
Hamerton, George Albert, L.S.A., Peckham.
Job, John, Redruth.
Lindsay, William Vickress, Pimlico.
Miller, Robert Bickersteth, Torrington-square.
Morton, Andrew Stanford, M.B. Edin., Edinburgh.
Shepherd, Francis John, M.D. McGill, Montreal.
Twort, William Henry, L.S.A., Upper Canton-place.
Watts, Fred, Plymouth.
Wilson, Joseph Henry, Stamford, Lincolnshire.

Giles Lockwood Lang Hawken, L.S.A., having passed his examination in Surgery at a previous meeting of the Court, was admitted a Member.

Five candidates passed their examination in Surgery, and when qualified in Medicine will be admitted Members of the College. Three candidates were referred to their surgical hospital studies for a period of six months.

The following gentlemen passed on the 24th ult., viz. :—

Armstrong, Henry George, L.S.A., Staines.
Clift, Martin Luther, L.S.A., Central-street, E.C.
Collins, Floyd, Ware.
Currie, Andrew Stark, M.B Edin., Edinburgh.
Drew, Clifford Luxmore, Exeter.
Giblin, Edward Owen, Hobart Town.
Hutchinson, Joseph Bouch, Liverpool.
Jarrett, Michael Lewis, Sierra Leone.
Little, James, M.B. Edin., Edinburgh.
Morton, R. J., Aylsham.
Reynolds, Edward Osmund, Appledore.
Trevor, Frank Wollaston, M.B. Aber., Great Coram-street.
Thomas, Robert Thomas, East Love, Cornwall.
Tyson, Edmund, Blackfriars-road.

Two candidates passed their examination in Surgery, and when qualified in Medicine will be admitted Members of the College. Seven candidates were referred to their surgical hospital studies for six months.

The following gentlemen passed on the 27th ult., viz. :—

Benton, Samuel, Wakering Hall, Southend.
Bernays, Sidney Adolphus, Brixton-hill.
Boulter, Harold Baxter, Hull.
Evans, Llewellyn Wilson, Strand.
Harsant, William Henry, L.S.A., Epsom.
Pring, Peter Burnett, Festning, North Wales.
Roberts, Humphrey, Festning, North Wales.
Sturmer, Arthur James, L.R.C.P. Edin., Calcutta.
Winckworth, Charles Edward, Great Bircham, Norfolk.

Six candidates passed their examination in Surgery, and when qualified in Medicine will be admitted Members of the College. Nine candidates were referred to their surgical hospital studies for six months.

The following gentlemen passed on the 28th ult., viz. :—

Abbott, Charles Edward, Liverpool.
Badcock, John Henry, Abingdon.
Bromly, John Maddern, L.S.A., New Swindon, Wilts.
Browne, George Buckston, Manchester.
Caddy, Henry, L.S.A., Ulverston.
Clarke, Henry, South Penge-park.
Clarke, Arthur, Brill.
Hentsch, John Page, Broad-street.
Hopcroft, Thomas Fay, Bayswater.
Jones, Arthur Henry, Peckham.
King, Nathaniel Thomas, Lagos.
Macready, Jonathan Forster C. H., Gilston-road.
Mason, Richard, L.S.A., Tenby.
Mercier, C. A., Hackney.
Perrin, A. C., Kensington.
Roth, Bernard Mathias Simon, Wimpole-street.
Smith, Henry Barton Liddell, M.B., M.C. Aber., John-street, Berkeley-square.

George Snell, L.R.C.P. Edin., of Jersey, who had passed in Surgery at a previous meeting of the Court, having subsequently obtained a medical qualification, was also admitted a Member of the College.

Three candidates passed their examination in Surgery, and when qualified in Medicine will be admitted Members of the College. Four candidates were referred to their surgical hospital studies for a period of not less than six months.

The following gentlemen passed on the 29th ult., viz. :—

Bathe, Henry Hearsey, Southampton.
Foreman, Joseph, L.S.A., Wigan.
Hutchinson, Samuel John, L.D.S., Brook-street, W.
Johnson, William Henry, M.D. Toronto, Guelph.
Kemp, John Robert, Notting-hill.
Manning, Charles James, Barbadoes.
Moody, James Mathew, Great Warley.
Powell, Joshua, Newcastle-on-Tyne.
Quinton, Richard Frith, M.D. Queen's University, Ireland, Dulwich.
Swanwick, Eustace Maclean, Torrington-square.
Turle, Arthur, L.S.A., Taunton.
Wilson, Charles Morgan, Aberdare.
Wilson, Charles William, L.M. Durham, Newcastle-on-Tyne.

Two candidates passed their examination in Surgery, and when qualified in Medicine will be admitted Members of the College; and nine candidates were referred to their surgical hospital studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 23 :—

Davies, William Charles, Buckingham Palace-road.
Hawken, Giles Lockwood Lang, Camelford, Cornwall.
Heale, Alfred Lawson, Luton, Beds.
Phillips, Easton Abbiss, Bury St. Aldgate.
Ranking, George Speirs Alexander, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their primary professional examination :—

Clark, William Thobalds Blanton, St. Bartholomew's Hospital.
Gascoigne, William Ellis, Queen's College, Birmingham.
Hindle, George, St. Bartholomew's Hospital.
Miller, Frederick Daniell, King's College.
Parker, William Herbert, Charing-cross Hospital.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BUCHANAN, ALEXANDER M., M.A., M.D.—Professor of Anatomy at Anderson's University, Glasgow.

DAVIES, WILLIAM CHARLES, L.S.A.—House-Surgeon to the Westminster Hospital, *vice* Mr. John Davies, M.R.C.S. Eng., L.S.A., whose period of office has expired.

DIXON, J. D.—Assistant-Surgeon to the General Infirmary, Nottingham.

LIDDERDALE, JAMES, jun., M.R.C.S., L.A.C.—Medical Officer for the Great Bedwin District of Hungerford Union.

PYWELL, WILLIAM HENRY, M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer, etc., for No. 1 District of Lambeth Parish.

SMITH, G. F. KIRBY, F.R.C.S.—House-Surgeon to the General Infirmary, Nottingham.

SMITH, R. SHINGLETON, M.D. Lond., B.Sc.—Lecturer on Physiology in the Bristol Medical School.

SPENCE, JAMES B., M.D.—Assistant Medical Officer to the Asylum for Idiots, Earlswood.

TURNELL, A. PYTHIAS, M.R.C.S. Eng., L.S.A.—House-Surgeon to the East Suffolk Hospital, Ipswich.

### BIRTHS.

BRYCE.—On July 28, at 31, Charlotte-square, Edinburgh, the wife of William Bryce, M.D., of a son.

BUTLIN.—On July 25, at 47, Queen Anne-street, W., the wife of Henry Trentham Butlin, F.R.C.S., of a daughter.

HARRIS.—On July 22, at 13, Mariue-parade, Worthing, the wife of William J. Harris, M.R.C.S. Eng., L.S.A., of a son.

LEACHMAN.—On July 24, at Petersfield, the wife of A. Warren Leachman, M.D., of a son.

VENNING.—On July 22, at 87, Sloane-street, the wife of Edgcombe Venning, F.R.C.S., 1st Life Guards, of a son.

### MARRIAGES.

CLOUTING—CLARK.—On July 23, at St. Mary's, Newmarket, John Revett Clouting, M.R.C.S. Eng., L.S.A., of Thetford, to Grace, second daughter of John Francis Clark, of Fairstead House, Newmarket.

DALTON—HARTER.—On July 21, at St. John's, Pendlebury, near Manchester, the Rev. G. Forster Dalton, curate, second son of the late John George Dalton, M.D., to Williamina Georgina, fourth daughter of the late William Harter, Esq., of Hope, Eccles.

HALL—BRODRICK.—On July 28, at Ashford, Middlesex, Lieut.-Col. J. Durham Hall, Bombay Staff Corps (2nd Central Indian Horse), to Ellen, widow of H. C. Brodrick, M.D., of the Madras Army, and second daughter of the late Jasper Hulley, Esq., of the One House, near Macclesfield.

PLATT—WINN.—On July 22, at St. Mary's, Kilburn, W. H. Platt, L.R.C.P. Edin., L.R.C.S.I., of 1, Priory-villas, Upton-road, Kilburn, to Kate Ellen, youngest daughter of the late W. Winn, Esq., of Lincoln.

REID—WATSON.—On July 21, at Cults, Aberdeen, Alexander Reid, M.A., M.D., of Canonbury-park, London, N., to Annie, second daughter of the late Robert Watson, Esq.

THOMSON—DOVER.—On July 22, at the parish church, Kensington, Robert Eaton George Thomson, Esq., of West Brompton, to Emma Miriam, only daughter of Frederick Dover, M.R.C.S., F.R.C.S., of 29, Earl's-court-gardens, Kensington.

## DEATHS.

CARLILL, JOHN BURFORD, M.D. Lond., eldest son of Briggs Carlill, Esq., of Hull, at 42, Weymouth-street, Portland-place, on July 22, in the 61st year of his age.

COOPER, ELLEN, wife of Astley Cooper, Staff-Surgeon R.N., and elder daughter of William Palmer, Esq., of Taunton, Somerset, at Stonehouse, Plymouth, after a short illness, on July 23.

HILL, SARAH ANN, wife of William B. Hill, M.R.C.S. Eng., at 89, Camberwell-road, on July 23.

MORGAN, MARTHA, wife of Charles Morgan, M.R.C.S. Eng., L.S.A., of 9, Bedford-place, Russell-square, on July 22, after a protracted and painful illness, aged 74.

SANDWITH, HUMPHRY, M.D., F.R.C.P., formerly Senior Physician of the Hull Infirmary, at Todwick Rectory, near Sheffield, the residence of his son, on July 25, aged 82.

SCHLESINGER, BARTHOLD, M.R.C.S., House-Surgeon at St. Mary's Hospital, on July 29, aged 21.

SMITH, ELIZA LETITIA, widow of Edward Smith, M.A., Surgeon Madras Army, at Sherborne-lodge, Ilfracombe, on July 18, in her 58th year.

WATKINS, JOHN, F.R.C.S., formerly of Falcon-square, London, at Thatcham, Berks, on July 27, aged 68.

WATTS, JOHN, M.D. Edin., M.R.C.S. Eng., at The Mount, Shrewsbury, on July 24, aged 54.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BUCKINGHAM INFIRMARY.—Resident Surgeon and Apothecary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, George Fell, Esq., Solicitor, Aylesbury, on or before August 4.

DURHAM UNIVERSITY COLLEGES OF MEDICINE AND PHYSICAL SCIENCE, NEWCASTLE-ON-TYNE.—Professorship in Biology. Applications, with testimonials, to T. Wood Bunning, Esq., Secretary, before August 15.

HANTS COUNTY ASYLUM.—Junior Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to D. Manley, Knowle, Fareham, Hants, on or before August 18.

HULL GENERAL INFIRMARY.—Resident Assistant-Surgeon. Applications, with testimonials, to the Chairman, Henry Gibson, Esq., at the Infirmary, from whom further particulars may be obtained. The post will be vacant on September 1.

INVERNESS DISTRICT.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Aitken, Medical Superintendent, on or before August 19.

LIVERPOOL NORTHERN HOSPITAL.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Committee, before August 3.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, E.C.—Honorary Assistant-Physician. Applications, with testimonials, to the Committee of Management, on or before August 4.

NEWPORT INFIRMARY, MONMOUTHSHIRE.—Resident Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to the Secretary, on or before August 5.

OWENS COLLEGE, MANCHESTER.—Professorship of Anatomy. Applications, with testimonials, to the Council, under cover to the Registrar, on or before August 1.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before August 5.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Medical Staff of the Infirmary, care of the Secretary, on or before August 11.

STAFFORDSHIRE GENERAL INFIRMARY, STAFFORD.—House-Surgeon and Secretary. Applications, with testimonials, to the Secretary, on or before August 1.

WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications, with testimonials, to the Secretary, on or before August 5.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Downham Union.*—The Sixth District is vacant; area 13,586; population 3168; salary £20 5s. 8d. per annum.

*Ludlow Union.*—Mr. J. R. Quick has resigned the Leintwardine District; area 15,802; population 2373; salary £60 per annum.

*Newcastle-under-Lyme Union.*—Mr. Ormsby has resigned the Whitmore District; area 7572; population 1194; salary £15 per annum.

*Walsingham Union.*—Mr. H. Everitt has resigned the Wells District; area 13,318; population 4950; salary £68 10s. per annum.

*Wantage Union.*—Mr. R. Murdock has resigned the Ilsley District; area 18,950; population 3534; salary £55 per annum.

*Woodbridge Union.*—Mr. E. F. Gerrett Butler has resigned the Walton District; area 10,806; population 3662; salary £62 10s. per annum.

### APPOINTMENTS.

*Alcester Union.*—Thomas H. Smith, L.R.C.P., M.R.C.S., L.S.A., to the Alcester District and the Workhouse.

*Brighton Parish.*—John Morris, M.R.C.S. Eng., L.S.A., to the Eastern District. Eugene J. Hart, M.R.C.S. Eng., L.S.A., to the Central District.

*Chard Union.*—Benjamin L. Powne, M.R.C.S. Eng., L.S.A., to the First District and the Workhouse.

*Newhaven Union.*—Thomas M. Cann, M.R.C.S. Eng., L.S.A., to the First Division of the Third District.

*Northamptonshire.*—Mr. Joseph Young as Analyst for the County.

*Salford Union.*—Alfred W. Stocks, M.R.C.S. Eng., L.S.A., to the Workhouse.

*Sheffield Union.*—Alfred Reckless, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., to the North-West District.

*Stockton Union.*—Mr. William Bettell, jun., as Analyst for the Borough of Middlesborough.

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INSPECTOR-GENERAL JOHN DAVIDSON, C.B., M.D., has been appointed Honorary Physician to her Majesty the Queen, *vice* Sir Alexander Nisbet, deceased.

DR. F. PORTER SMITH, of Shepton Mallet, has been elected an honorary member of the Pharmaceutical Society of Great Britain.

The Monmouth Board of Guardians have increased the salary of Mr. Woollett, medical officer for the Monmouth district and the workhouse, from £55 to £75 per annum.

PROFITS OF QUACKERY.—The will of the notorious Jordan, of Bedford-square, the proprietor of the "Cordial Balm of Rakasira," has just been sworn under £90,000. One of his executors, his son, the equally notorious Dr. Robert Jacob Jordan, was struck off the list of Members of the Royal College of Surgeons a few years ago, and afterwards prosecuted by the College for describing himself as a Member in the obscene catalogue of his museum, and fined by Mr. Knox in the highest penalty of £20 and costs.

HEALTH OF THE PUNJAUB.—The Sanitary Commissioner of the Punjaub reports, for the week ending May 30 last, a further decrease in the mortality of the province. In the week ending May 23, the total deaths were 6165; in the week under review they fell to 5995. There was only one death registered under the head of cholera; it occurred in the municipality of Simla, in the Simla district. The disease does not evince a tendency to spread. The total deaths from small-pox have decreased from 606 to 521. The great bulk of the mortality from the disease is still confined to the districts south of the Sutlej; the districts north of that river continue to enjoy comparative immunity from the disease. Out of the total number of 521 deaths from small-pox, only ninety-eight occurred in the districts north of the Sutlej. Of the large towns, Karnál suffers most from small-pox; twelve deaths were registered there from the disease in the week, and in Delhi seven deaths. Intramural Delhi continues very unhealthy; the total deaths have risen from 118 to 124, giving a death-rate of fifty-eight per mille; the suburbs of Delhi continue healthy. In Amritsar the total deaths are one less than last week—viz., 110, giving a death-rate of forty-two per mille. Many of the smaller towns show a considerable increase of mortality.

THERE are other pulsations in the epigastric region not depending upon cardiac impulse, such as the ordinary pulsation of the abdominal aorta, which occasionally becomes visible through the great emaciation of those previously of full habit, or which may become visible by their more energetic transmission to the abdominal surface by some overlying tumour. Now and then this pulsation is actually aneurismal in character; much more frequently it is simply neurotic, and yet limited to the abdominal aorta. Under some of these circumstances we can readily understand that the pulsation extends downwards along the course of the aorta; under others, as when propagated upwards by a solid tumour, it is obvious that it may not only be limited in its longitudinal propagation, but may even extend transversely. Inspection directs the attention to these pulsations, indicating to an experienced eye their probable nature, which can only be accurately determined by other means of exploration. In rare instances, a pulsatory movement is also communicated to the epigastrium through the movement of the heart's apex during the ventricular systole, pulling upwards an adherent pericardium, diaphragm, and liver. This movement is, of course, exactly the reverse of that in ordinary epigastric pulsation. As this extensive adhesion is, as a rule, only the result of a severe and extended inflammation, affecting uniformly the whole surface of the heart, we can readily understand how, in such circumstances, a universal undulatory movement may be perceived, in which, when the heart's action is at all rapid (over ninety beats per minute), it may be difficult to say what parts of the motion are systolic and what are diastolic. In these circumstances, the variations in time between the movements of any two parts are readily rendered visible by attaching to each, by means of a pellet of beeswax, a bristle carrying a small paper flag; and when the pulse is over ninety, this is the only way in which such differences can be ascertained with

any certainty; and it is a means of attaining certainty of diagnosis, often of much importance, especially when we have pulsations visible above the fourth rib, which may possibly be either aneurisms of the aorta or pulsations of the auricle. A comparison of the movements of a flag on the doubtful point with one over the apex, will settle the matter at once, as the beat of the auricles always precedes that of the ventricle, while, however near the heart an aortic aneurism may be, its pulsations can never precede those of the ventricles, but must succeed them by an interval which is more or less appreciable. —"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874).

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Brass Plate.*—It is quite a matter of taste. In the Irish capital the prefix "Surgeon," on a brass plate frequently meets the eye. The illustrious Hunter, who was noted for his simplicity of character and singleness of mind, had a plain brass plate inscribed "*John Hunter*."

*A Student, Guy's Hospital.*—The examinations for the diploma of membership of the College of Surgeons for the present session have been brought to a close. Touching that for the "L.M.," write to the Secretary.

*M.D., Birmingham.*—Yes. Mr. Alfred Baker, the recently elected member of Council, and the late Messrs. Hodgson and Partridge, were all Birmingham men; the two last named were elected Presidents of the College in 1864 and 1866 respectively.

*Dr. Jenner, Folkestone.*—A few years ago the Presidents of the Colleges of Physicians and Surgeons respectively, as members of the Vaccine Board, received 100 guineas annually for their attendance.

*F.R.C.S., Norwich.*—There is no such title as "Fellow-Elect" recognised by the College. The person named is *not* a Fellow of the London College of Surgeons.

*H. W.*—The case you mention is not novel. You will find similar recorded in Morgagni. In the letters of the first Earl of Malmesbury, published by Bentley, 1870, you will find at page 199, that—"General Armiger, aged sixty-five, was married at eight o'clock last Saturday evening (March 20, 1770), to a lady between thirty and forty years of age, went to bed, and was dead by one o'clock in the morning."

*Mr. Lonsdale.*—The book to which you allude was noticed in vol. xxviii. of this journal.

*Mr. M., F.R.C.S., Guy's.*—You will find a short notice of the trial of Bransby Cooper *v.* Wakley, in the "Laws relating to the Medical Profession," by Willcock, where you will also find references in full to different reports on the same trial; but for a spirited and most interesting account we refer you to Clarke's "Autobiographical Recollections," of which a notice appears elsewhere.

*A Metropolitan Lecturer.*—According to collegiate etiquette, only the members of the Council of the College of Surgeons who have passed the chair wear the President's gown on public occasions.

*Veritas.*—"The past but lives inwards; a thousand ages
Were blank, if books had not evoked their ghosts,
And kept the pale embodied shades to warn us
From fleshless lips."—*E. L. Bulwer.*

*Philip V.*—John Abernethy died at his country residence at Enfield on April 20, 1831. His disease was asthma, complicated probably with diseased heart (although he attributed much to the stomach), and consequent dropsy. His body was not examined, in accordance, as it is understood, with his own desire.

*Curious Will.*—In a recent tour in South Devon we came across the following extract from the will of Mr. Thomas Axe, formerly of Orchard, in the county of Somerset; it is inscribed on a tablet in one of the porches of the fine old church of Ottery St. Mary, and will be read with some interest, especially by the lady-doctors, of whom good "Maister Thomas Axe" appeared to have great respect. The will, which is dated July 20, 1691, directs, amongst other good bequests, that of the profits of premises at Blandford, three-twelfths be given to some man or woman of exemplary life, and some skill in physic and surgery, who should industriously endeavour to help all the poor of Ottery gratis in cases of sickness and accident till better advice could be had. Testator's kindred were to be preferred for the office; the clerk's wife next; the vicar's wife before any other, if she should be very fit, or as fit as Mrs. Alford, the late vicar's wife. "Maister Axe" also directs all the profits of his "houses in Southwarke" to be divided into twelve parts, to be applied as set forth; then come marriage portions, etc., and one-twelfth to be given to the person before described to buy "drugges and plaisters." Perhaps Mr. Baker, the very obliging chemist and druggist of the place, could inform our readers how the provisions of the will are carried out in the present day.

*H. F. S.*—The origin of spectacles is uncertain. They were known so early as 1317, as, in a painting of the Circumcision by Luigi Sigoli, Simeon is represented wearing a pair, which, from his advanced age, it was supposed he might have needed on the occasion.

*Mr. Manning.*—The trephine was invented by John Woodall, Surgeon to St. Bartholomew's Hospital, who had the charge of superintending the chirurgical part of his Majesty's service in 1626.

*A Teacher.*—We cannot obtain the information for you, but from an old return before us it appears that from 1828 to 1832, inclusive, 2143 gentlemen received their diplomas from the College of Surgeons, and 141 were rejected.

*B. T. F.*—Dr. John M. Woodworth is the Supervising Surgeon of the Marine Hospital Service of the United States.

*W. N. J. S.*—"One eye not over good,
Two sides that to their cost have stood
A ten years' hectic cough,
Aches, stitches, all the various ills
That swell the devilish doctors' bills
And sweep poor mortals off."—*Wm. Giffard.*

*Aqua.*—The London and General Water-Purifying Company have brought out a cheap apparatus for detecting the presence of organic and other impurities in water. We understand that the apparatus has been found to answer well for testing water.

*Dr. Nelson, Portsmouth.*—The late Dr. Bryson succeeded Sir John Liddell as Director-General of the Naval Medical Department. The latter gentleman succeeded Sir William Burnett.

### The "Use of Split Pigeons" in Surgery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your correspondent of June 27 may feel an interest in the following extract from an author in the *renaissance* of medicine. Speaking of lupus he says:—"The vulgar people will have it to be from hence so called—to wit, because, like unto a hunger-starved Wolf, it consumeth the Flesh of Hens, yea, and other Flesh also. That some such thiug is done is related and asserted by divers, and it is confirmed by the History that Mauritius Cordæus relateth in his first book, Commentary 7, upon Hippocrates touching women. 'There was,' saith he, 'a certain Noble and choice Woman, living nigh unto the castle of Nenve, that had all the right side of her Face possessed and overspread with a Cancer, and that likewise exulcerated of a long time, insomuch that her face was most grievously tortured with pains and griefs of all sorts. She, having in vain aud to no purpose at all sought for help unto the Physitians as well French and Italians as Spanish and Germans (together with other forreign Physitians), was at length perfectly cured by this following expedite and speedy Remedy that she had learned of an ordinary and vulgar Barber-Chirurgeon. She cuts Chickens into very smal and broad pieces, the which she dayly applied unto the part affected, ofteutimes changing and renewing them; and at length by this one only Remedy she recovered her former perfect health and soundness.'"

I am, &c., G. Gaskoin.

### "Scraps from my Diary."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is, I believe, a very general supposition that members of the medical profession of past ages were but indifferently educated. To refute this, it is, I think, our duty to record on every occasion any particular instances of learning. I therefore send you these lines on Dr. Philemon Holland, a physician and schoolmaster at Coventry, called the Translator-General of his age. Winstanley says the books alone of his turning into English are sufficient to make a country gentleman a complete library. He died in 1636, aged 85.

*On Dr. Philemon Holland's Translation of Suetonius.*

"Philemon with translations does so fill us;
He will not let Suetonius be Tranquillus."

The following, I believe, is of not unfrequent occurrence in practice:—

*The Doctor and Patient.*

"'Slept you well?' 'Very well.' 'My draught did good?'
'It did no harm,—for yonder it has stood!'"

"As Physic and Verse both to Phœbus belong,
So the College oft dabble in Potion and Song;
Hence Burton, resolv'd his emetics shall hit,
When his recipe fails, gives a puke with his wit."

These lines (written A.D. 1744) were occasioned by a distich, attributed to Dr. Burton, in ridicule of the physician who prescribed for Pope in his last illness—Dr. Thompson:—

"Dunces, rejoice! forgive all censures past!
The greatest dunce has killed your foe at last."

July, 1874. I am, &c., George Charles Coles.

### King and Queen's College of Physicians in Ireland.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Would you, with your usual courtesy, throw a little light on the changes proposed to be made in this body?

A class intermediate between the Fellows and the Licentiates, called Members, is to be formed, and the Members are to correspond to the Members of the Colleges of Physicians of London and Edinburgh. I confess that I cannot see how this can be.

The Fellowship of the London body is a great honour. The Members, and of course the Fellows, do not dispense, nor hold contract appointments, nor practise in partnership. The Fellows and Members of the Edinburgh College are, I believe, at liberty to do any of these things. Again, a Fellow of the Irish body is allowed, I am informed, to do anything but keep a shop. I knew one who had a parish appointment. What earthly advantage can there be in forming a body of Members? Were the new body debarred from dispensing or from holding club and parochial appointments, there might be some object gained in creating it; but, while the Fellows can do what they like, the Members can hardly be crippled in their movements.

Not being in general practice, it signifies little to me what changes are made in the constitution of the Irish body, though, unless there is some special honour to be obtained from becoming a Member, I shall, for my part, be content to remain a L.K.Q.C.P.

*Dr. McM., Devonport.*—You have *not* been misinformed on the subject; Emma, Queen of the Saudwich Islands, is daughter of Mr. Thomas Charles Ryde Rooke, a member of the Royal College of Surgeons of England. His diploma bears date January 16, 1827; in the Calendar of the College he appears still as residing on the Sandwich Islands. His daughter married the late King Kamchameha IV., June 19, 1856. A few years since her Majesty was the guest of our Queen.

*Rahere, Fowey, Cornwell.*—The late Sir William Lawrence was created a baronet. He left only one son, Sir J. J. Trevor Lawrence, of the Queen's Indian Army. He received his professional education at St. Bartholomew's Hospital, and was admitted a member of the College in 1853.

*Dens Sap.*—Mr. G. A. Ibbetson, F.R.C.S., late President of the Odontological Society, published a paper in vol. v. of the *Transactions* of that Society on "The Fossil Teeth of Fishes in the Palæozoic and Lower Members of the Mesozoic Rocks." He is a member of the Dental Board of the College of Surgeons. Inquire of Messrs. J. and A. Churchill.

*Waverley.*—The only living descendent of Sir Walter Scott is his great-granddaughter, Mary Monica Hope Scott, who was recently married to the Hon. Mr. Maxwell. She is granddaughter of Lockhart, who married Sir Walter's daughter.

*Corrigenda.*—In the list of successful candidates in the primary examination at the Royal College of Surgeons for the 16th ult., *for* "Tallis Russell Thomas," *read* "Thomas Russell Thomas." Also, in the list of June 15, *for* "Henry Palmer Welchmau, Charing-cross Hospital," *read* "Henry Palmer Welchman, Queen's College, Birmingham."

COMMUNICATIONS have been received from—

Dr. J. G. Richardson, Philadelphia; Mr. T. R. Thomas, London; Mr. Bailey Denton, London; Sir James Paget, Bart., London; Mr. E. J. Wilson, London; Mr. F. G. Gant, London; Messrs. H. R. Williams and Co., London; Dr. Pickles, Leeds; The President of the Pharmaceutical Society; Dr. Porter Smith, Shepton Mallet; Dr. John Drysdale, Liverpool; Dr. T. E. Anstie, London; Mr. G. Gaskoin, London; Dr. Sparks, London; Mr. Jessop, Leeds; Mr. J. Chatto, London; Dr. Edward Long Fox, Clifton; Mr. Hawkins, London.

BOOKS AND PAMPHLETS RECEIVED—

Carter on Mycetoma or the Fungus Disease of India—Squire on the Period of Infection in Epidemic Disease—Moxon's Annual Report to the Rural Sanitary Authority of the Glanford Brigg Union—Annual Report of the Broadmoor Criminal Lunatic Asylum—Moore on the Eurasian Future—Studien und Experimente die Vorbauung der Ansteckungs-Krankheiten betreffend von Dr. J. v. Froschauer—An Experimental Inquiry into the Nutrition of Animal Tissues, by William Marcet, M.D.—Laycock on Neurotic Albuminuria and Hæmaturia—Moore's Glance at Preventive Medicine in 1769 and in 1874.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—O Correio Medico de Lisboa—Gazette Médicale—Gazette Hebdomadaire—Gazette des Hôpitaux—La France Médicale—Le Progrès Médical—La Tribune Médicale—Echo de la Presse Médicale—Bulletin de l'Académie de Médecine—The Fancier's Gazette.

## APPOINTMENTS FOR THE WEEK.

*August* 1. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

3. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

4. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

5. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

6. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

7. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, July 25.*

### BIRTHS.

Births of Boys, 1121; Girls, 1062; Total, 2183.
Average of 10 corresponding years 1864-73, 2052·9.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 892 | 748 | 1640 |
| Average of the ten years 1864-73 | 780·4 | 721·5 | 1501·9 |
| Average corrected to increased population | ... | ... | 1652 |
| Deaths of people aged 80 and upwards | ... | ... | 38 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 6 | 1 | ... | 1 | 2 | 3 | 2 | 76 |
| North... ... | 751729 | 1 | 7 | 9 | 2 | 9 | ... | 3 | ... | 99 |
| Central ... | 334369 | ... | 7 | 5 | ... | 2 | 1 | 1 | ... | 44 |
| East ... ... | 639111 | ... | 5 | 28 | 1 | 3 | 2 | 1 | ... | 78 |
| South... ... | 967692 | 1 | 6 | 9 | 1 | 5 | 1 | 9 | 1 | 92 |
| Total ... ... | 3254260 | 2 | 31 | 52 | 4 | 20 | 6 | 17 | 3 | 389 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·713 in. |
| Mean temperature | 64·4° |
| Highest point of thermometer | 91·8° |
| Lowest point of thermometer | 47·1° |
| Mean dew-point temperature | 53·6° |
| General direction of wind | Westerly |
| Whole amount of rain in the week | 0·20 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 25, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending July 25. | Deaths Registered during the week ending July 25. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2183 | 1640 | 91·8 | 47·1 | 64·4 | 18·00 | 0·20 | 0·51 |
| Portsmouth ... | 120436 | 26·8 | 58 | 46 | ... | 47·2 | ... | ... | 0·15 | 0·38 |
| Norwich ... ... | 82257 | 11·0 | 44 | 22 | 86·5 | 49·0 | 63·1 | 17·28 | 1·36 | 3·45 |
| Bristol ... ... | 192889 | 43·3 | 119 | 80 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 59 | 45 | 89·0 | 49·8 | 64·0 | 17·78 | 0·66 | 1·68 |
| Birmingham ... | 360892 | 43·0 | 259 | 195 | 85·0 | 49·2 | 63·2 | 17·33 | 0·30 | 0·76 |
| Leicester ... ... | 106202 | 33·2 | 88 | 75 | ... | ... | ... | ... | ... | ... |
| Nottingham ... | 90894 | 45·5 | 67 | 47 | 86·0 | 44·4 | 62·1 | 16·72 | 0·36 | 0·91 |
| Liverpool ... ... | 510640 | 98·0 | 394 | 346 | 82·2 | 50·0 | 59·3 | 15·16 | 1·48 | 3·76 |
| Manchester ... | 355339 | 82·8 | 267 | 251 | 89·5 | 49·0 | 61·4 | 16·33 | 0·78 | 1·98 |
| Salford ... ... | 133068 | 25·7 | 99 | 93 | 87·4 | 46·0 | 60·0 | 15·56 | 0·93 | 2·36 |
| Oldham ... ... | 86281 | 18·5 | 61 | 33 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 130 | 85 | ... | 50·3 | 60·3 | 15·72 | 0·45 | 1·14 |
| Leeds ... ... | 278798 | 12·9 | 214 | 196 | 84·0 | 50·0 | 61·8 | 16·56 | 0·81 | 2·06 |
| Sheffield ... ... | 261029 | 13·3 | 233 | 183 | 85·1 | 46·0 | 62·6 | 17·00 | 0·11 | 0·28 |
| Hull ... ... ... | 130996 | 36·0 | 109 | 65 | 83·0 | 44·0 | 60·6 | 15·89 | 0·72 | 1·83 |
| Sunderland ... | 104378 | 31·6 | 78 | 51 | 75·0 | 52·5 | 62·4 | 16·89 | 0·77 | 1·96 |
| Newcastle-on-Tyne | 135437 | 25·2 | 101 | 87 | ... | 50·0 | 59·6 | 15·33 | 0·71 | 1·80 |
| Edinburgh ... ... | 211691 | 47·8 | 124 | 96 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 429 | 344 | ... | ... | ... | ... | ... | ... |
| Dublin ... ... | 314666 | 31·3 | 193 | 125 | 76·9 | 44·4 | 60·6 | 15·89 | 1·41 | 3·58 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 53 9 | 4105 | 91·8 | 44·0 | 61·7 | 16·50 | 0·70 | 1·78 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·71 in. The highest was 30·01 in. at the beginning of the week, and the lowest 29·60 in. on Tuesday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

SIX LECTURES ON THE

## SURGICAL TREATMENT OF ANEURISM IN ITS VARIOUS FORMS.

DELIVERED IN THE THEATRE OF THE ROYAL COLLEGE OF SURGEONS.

By TIMOTHY HOLMES, F.R.C.S.,
Professor of Surgery and Pathology to the College.

### Abstract of Lecture IV.,

*Delivered on Monday, June 14th.*

The aneurisms which formed the subject-matter of the fourth lecture of this series were those of the popliteal artery. The more important points in the surgical treatment of aneurisms of this region were noticed, and the views which appear justified by the present state of surgical practice were expressed. These views, we must remember, are founded on an experience still very incomplete, and the more adequate trial given to each mode of practice in the future may largely modify them. One thing Mr. Holmes thinks will come out unmistakably from any dispassionate and extensive examination of modern practice in popliteal aneurism, and that is the encouraging fact that the practice of surgery has been successful to a very large extent in conquering the difficulties which present themselves in the treatment of this disease, and that, whether by Hunter's method or by the more recent plans which have been introduced in its place, the proportion of cures is very large, and appears to be increasing; and doubtless this proportion might be still further increased if the disease were not so often overlooked at its commencement.

The Professor commenced his remarks on the surgical treatment of popliteal aneurism by repeating the observations which he formerly made on other kinds of aneurism as to the great importance of the composition of the sac.

1. It is delusive to expect that equally mild measures will succeed in a rapidly growing aneurism when the sac is thin and probably imperfect—as in one in which the sac contains a considerable proportion of the firm, elastic tissue derived either from the expanded arterial wall or from well-formed and consolidated areolar membrane. At an early period of the formation of an aneurism resulting from injury, we see very clearly the slight resistance which the surrounding tissues will oppose to its increase—allowing that the rupture of the coats is complete,—as contrasted with the difficulty experienced by the artery in the manufacture of the aneurismal sac when only a portion of the coats has given way. This difference is clearly pointed out by John Hunter in his remarks on the preparations of traumatic popliteal aneurism (No. 1571 in the Hunterian Museum). Hunter says—"Here was a case where there was every external appearance of an aneurism, such as a circumscribed swelling with a pulsation. This was what would be called or understood by a spurious aneurism, but it was properly a rupture of the coats of the artery, and which I do imagine is only to be distinguished from the aneurism or dilatation by the time it takes in coming to its ultimate size—viz., from its first appearance to its threatening destruction to the parts beyond, as a limb, or destruction in the surrounding parts in which it is placed—threatens, viz., mortification and bursting; an aneurism being as many months in coming to this ultimate as this disease was days; for in aneurism, although the artery gives way at last, and then its coats are principally composed of the condensed cellular membrane (as in this case), yet it is strong, owing to the time it has had to thicken and form a coat while the artery was dilating."

The difference pointed out by Hunter, and inferred by him from this pathological specimen, is often very clearly marked in practice. It is true that in cases of extensive or total laceration of the wall of an artery no sac is usually formed. The blood is extravasated into the cellular membranes, but there is no pulsation—and in these cases there will most likely be no aneurism at all,—the blood extends indefinitely, the limb will mortify, and amputation must be performed. Such cases may be likened to those of extravasation of urine from free rupture of the urethra, infiltrating the areolar tissue to an indefinite distance.

But there are other cases, more like those of perineal abscess following on a slight ulceration of a portion of the urethra behind a stricture where there is a small laceration of all the coats of the vessel and a limited quantity of blood is extravasated. In these cases a sac is formed sometimes with amazing rapidity, and grows as rapidly as it forms: most interesting example is one published by Mr. G. E. Walker, of Liverpool, in the *Liverpool Medical and Surgical Reports*, vol. v. There are many somewhat similar cases which show the failure of pressure, or the great difficulty in bringing it to a successful issue in cases of traumatic aneurism, or of aneurism following partial rupture of an artery, where the sac is very thin or imperfect. It appears to Mr. Holmes that both theoretical and practical considerations point to the conclusion that for the speedy and secure consolidation of an aneurism the concurrence of the contracting action of the sac is almost as important as the coagulation of the blood within it. And if this be so, it accounts for the great difficulty in procuring a stable cure by any method such as galvano-puncture, which is intended to act upon the blood alone—and still more so by the introduction of foreign bodies into the tumour, with which they may consolidate the blood; these must certainly irritate and soften to some extent the tissues of the sac.

2. Besides the differences which exist between one aneurism and another in respect to the composition of the sac, there is a very important difference in popliteal aneurism in respect of its position—*i.e.*, whether the orifice of the aneurism is on the deep face of the artery, and the tumour grows towards the knee-joint, lifting up the vessel; or, on the other hand, is situated at the back of the artery, growing towards the vein, the nerve, and the skin; or laterally; or is of the fusiform or tubular variety, in which case it often extends up Hunter's canal and becomes femoro-popliteal.

It is quite evident that such differences in form and in anatomical relations must powerfully influence both the course of the symptoms and the effect of treatment. For instance, the aneurisms which grow towards the knee-joint must produce more difficulty and stiffness in the motions of the knee; they must be more liable to be accompanied by synovial effusion, and sometimes by more serious disintegration of the joint; they must threaten more speedy rupture into the cavity of the joint; and probably are less under the influence of genuflexion, which also must be attended with more risk of rupturing the sac. Aneurisms which grow forward from the anterior or deep aspect of the artery are exposed to two grave complications—(1) they may grow into, erode, and irritate the bone (*vide* Tufnell's work), or (2) they may press upon the posterior ligament of the joint. In the former case they may burst after attaining a very small size; for in such cases it is clear that the pressure exercised by the tumour on the bone is reflected back upon its sac, causing it to soften and give way. In the second case, synovitis is apt to be an early complication, and the aneurism may suddenly burst into the cavity of the knee, as in Mr. Moore's case reported in the *British Medical Journal*, 1859.

3. Again, the form of the aneurism has much influence on its curability. Those tumours which communicate with the artery by a definite orifice, from which the sac stands out as a bud, are far more curable by gradual or partial compression; and in flexion it is quite possible that their orifice may be obstructed by displaced clot, leading to a rapid cure, though flexion may probably succeed by displacing the clot in any form of aneurism. The quantity of clot also in the sac when the patient is first seen, furnishes an important indication of the probable success of the milder methods of treatment.

4. Another practical consideration of the highest moment is the progress of the case while under observation, or in other words, the rate at which the symptoms are advancing. This rate depends in part, no doubt, on the particulars above alluded to—*i.e.*, on the composition of the sac, on the position of the tumour, and on the nature of its orifice; but also on many other circumstances of which no general statement is possible: such as the precise exciting cause of the aneurism the minute anatomy of the affected artery, the patient's own habits or conduct, and all those individual peculiarities which are comprised under the vague term of his "constitution"—peculiarities which it is impossible to foresee, or even in most cases to explain, but which exercise so real and so vital an influence in the progress of aneurisms, not only when they occur in different persons, but also when they occur in the same person at different times. Anyhow it must be admitted that cases of popliteal aneurism display great variety in their progress: in some cases a few days' rest and quiet is all that has been necessary; in others, the surgeon must act at once and decisively, or serious if not fatal mischief will ensue.

5. The next important practical difference between different cases consists in the presence or absence of other diseases, of which cardiac mischief, perceptible atheroma, or ossification of the affected or other arteries, and renal diseases, are those which first occur to the surgeon's mind.

Now, all these facts can usually be judged of in popliteal aneurism with some approach to certainty. When the artery crosses the back of the aneurism, it can be traced by a line of pulsation distinct from the general heaving of the aneurism, and particularly recognisable when blood is re-admitted after temporary compression of the femoral. When the tumour grows more or less directly backwards, its position may be inferred from the absence of the above symptoms, from the considerable œdema, and from the early existence of pain in the course of the nerve. The tumour may, however, lap round the artery, as in a case in St. Thomas's Hospital.

It is more difficult to judge of the condition of the orifice of the tumour. A very common state of parts in aneurism is that in which the tumour, originating from one definite portion of the vessel, which has given way from disease or injury, overlaps the artery for some distance, so that a certain portion of healthy artery above and below the orifice is enveloped in the sac of the aneurism. But it is equally common, taking all aneurisms together, to have an arrangement more resembling that of fusiform dilatation—there being two openings of the artery into and out of a more or less tubular sac. This arrangement, however, seems to Professor Holmes (judging from memory rather than from given data) to be less common than the others in popliteal aneurism. It is more common in the larger arteries than in smaller ones, and is less likely to occur in the ham, since aneurisms here seem so frequently to depend on partial rupture of the artery at a certain spot, while the tubular aneurism originates in degeneration of a considerable part of the vessel. The physical diagnosis must rest on the character of the bruit, on the shape of the tumour, and on the nature of its expansion. The phenomena observed when the tumour is as far as possible emptied, after compression of the artery above, and the blood then re-admitted, enable the surgeon to judge more or less certainly of the strength of the sac in various parts, of the amount of coagulum contained in it, and of the position of its orifice.

The first step, then, in the treatment of popliteal aneurism is to ascertain as accurately as may be these particulars with regard to the case in hand, and to base upon them the important choice of the method to be first adopted. The choice between the ligature and some form of pressure (including genuflexion amongst the latter) will rest chiefly upon the presence or absence of a thick, well-formed sac, lined with some amount of coagulum; on the judgment of the surgeon as to the relations of the sac to its orifice; on the acute or chronic nature of the symptoms; and on the presence or absence of disease of the heart, arteries, or kidneys. The most promising cases for compression are those with a thick sac and a certain amount of fibrine deposited, without urgent symptoms or rapid advance, and where the characters of the bruit and of the pulsation point to the conclusion that the aneurism is not fusiform. And in cases where the presence of other general complications renders the surgeon anxious to avoid the risks attending a serious operation, compression has very often succeeded; but many cases of successful ligature of the femoral artery have occurred in patients suffering from cardiac or renal affections, or with aneurisms in other parts.

If compression does not succeed at first, how long should it be persevered with? This question can only be answered in very general terms. Considering the distress and disappointment, and sometimes acute suffering, to the patient of prolonged compression; considering, too, that experience up to the present time points to the conclusion that a patient is not more, but less likely to recover from ligature of the femoral if a prolonged application of pressure has previously been made; and if it can be shown that the Hunterian operation is much less dangerous than we have been taught to regard it, judging only from the experience of a former generation, recorded by Norris and other statistical writers,—it would be better to abandon the compression treatment after a careful, but very moderate, trial if it does not seem to be doing good, and then to resort to the ligature before the patient's chance of recovery from that operation has been permanently impaired. As to how long a time is implied by "a very moderate trial," that must be decided by the individual cases, but Mr. Holmes's own opinion is that more harm than good generally results from protracting the attempt beyond a week.

The results of each form of treatment as applied to popliteal aneurism are by no means easy to ascertain or to compare with each other. The comparison which is made between compression and the ligature is based upon statistics which, as applied to the latter, are composed mainly of cases operated on long ago, when the success of surgical operations was much less than it is at present. Reliable statistics of the compression treatment are very hard to procure; published cases afford no fair test of the average success of so common a proceeding, since they are recorded mostly on account of something unusual in their course. Hospital cases, if the records are complete, afford a better criterion of success obtained, but are open to the objection that better results might be obtained if more minute attention were given to the cases than hospital arrangements provide. The records of hospital practice probably do not show all that might be done, therefore, by the method. Then, again, some of the most promising methods of compression are as yet new, while the rapid method under chloroform is almost untried in popliteal aneurism.

Again, we must remember, on the one hand, that compression is applied to milder cases than those which are subject to the ligature; and, on the other, that the treatment by compression is not yet perfected, but is still being developed and improved. Still, the experience of surgeons in the past will be found to give no uncertain indication of the direction in which improvements in the treatment of this disease are to be sought. The Hunterian operation was eagerly adopted in cases in which, up to the time of its introduction, no one had ever thought accessible to surgical operations at all. It was not merely successful in curing popliteal aneurism—which was at that time a most fatal disease, rarely cured by any means short of amputation,—but it also gave a new impetus to the study of the arteries and their diseases, and thus, by showing that some amount of circulation was not incompatible with the cure of aneurism, it laid the foundation for the introduction of that treatment by compression, which has since, but very wrongly, been sometimes looked upon as a rival or enemy of the ligature. Certainly John Hunter did not so regard it, for after having tied the femoral twice, he attempted the cure by compression in his third patient, and only tied the artery on the failure of that attempt.

Hunter himself only operated on five occasions; and although the operation was in its infancy, and as he at first took no care to exclude the vein, and tied the artery in a position where it is not very easily accessible, still only one case died. There can be no doubt that this fortunate result did much to insure the reception of the method into practice. Judging of the success of the operation from statistics published by Norris and by Porta, the mortality is about one-fourth; from statistics drawn from the London hospitals by Mr. Hutchinson, the mortality appears to be one-third; while the experience of individual operators who had enjoyed exceptional experience in the treatment of aneurism was said to have been far more favourable than this.

Professor Holmes has attempted to discover what the mortality of this operation has been in our hospitals (both metropolitan and others) of late years, and he finds it much less than is represented by the tables of Norris and Porta; and this he attributes to a concurrence of causes, mainly perhaps to the earlier treatment of cases by surgical operations since the introduction of anæsthetics, but also to improved methods of operating, and improved knowledge of anatomy and surgery. This mortality is neither one-third nor one-fourth, but one-seventh, including several cases in which death occurred from causes quite unconnected with the operation. Nor are the London any worse than the country hospitals.

These remarks refer to cases of ligature of the femoral artery at once, uncomplicated by any previous pressure or other treatment.

In the table, exhibited by the Professor, of the results of treatment of aneurisms in our British hospitals, there are 212 cases of popliteal aneurism, and they furnish examples of every variety of treatment. In 77 cases the femoral was tied without any previous trial of compression, and of these 11 died.

In one of the fatal cases, however, the death was occasioned by small-pox. To these unfavourable cases those should be added in which the operation failed to cure the disease: these were only three, viz., one in which the old operation was performed subsequently with success, and two in which ampu-

tation was successfully performed. Thus, of the whole 77 operations, the failures were only 14, or at most 15, and out of these three were cured subsequently—so that the largest ratio of failures which can be ascribed to the Hunterian operation would be only 19·48 per cent.; and it should be recollected that this includes one-fifth of cases in which, though the operation itself failed, the patient survived, and was cured otherwise. These are the miscellaneous results of practice, on a collection of all the cases, published and unpublished, which occurred in the hospitals referred to, and the table represents the average results of practice as far as the numbers go; and these numbers are large enough to show the truth of the argument. In Norris's table, the operation proved fatal in 24·46 per cent. In Professor Holmes's table, gangrene occurs at most four times only out of 87 cases, and proved fatal in two or three; while in Norris's table (containing twice as many cases) it occurs 31 times, and proved fatal in at least 23 cases.

In the hospital table, again, there is an absence of any fatal case of suppuration of the sac; but in Norris's there are six deaths from this cause, besides ten cases in which recovery took place. Pretty nearly the same observations apply to secondary hæmorrhage. It was the cause of death, directly or indirectly, in three of the fatal cases, and its occurrence is noted in one which recovered. In Norris's table it occurred in twelve fatal cases, and in the same number of cases which recovered. Hence it seems that ligature of the femoral has become much more successful than it used to be down to the time of Norris's table, published in 1849; and as applied to the treatment of popliteal aneurism, it is really much more successful than the researches of previous writers have led us to believe, and perhaps has become more successful than it used to be.

In commencing the discussion as to the relative merits of compression, and the other bloodless methods of treating popliteal aneurism, it must be stated that we have in the Hunterian operation a method which almost always succeeds if the patient recovers from the operation, and which may be expected confidently to be followed by recovery in the very large majority of cases, especially if the dissection be skilfully and carefully conducted, so as to avoid all violence to the vein, and all unnecessary exposure or contusion of the artery.

The results of the treatment by compression, in all its forms, as shown by the hospital table, are as follows:—Compression was tried with success in sixty-six cases, and in fifty-eight without success. The most interesting questions in this record of experience are those which refer to the frequency of the failure of compression—to the effect which compression may have, if it fails, on the future progress of the case, and to the form of pressure which it is best to employ.

Professor Holmes addressed himself to these matters in their order:—

First, as to the frequency of failure. It seems discouraging, at first sight, that pressure should have failed fifty-eight out of 124 times. But these cases go back a long way in the history of compression, and many of them were under the care of surgeons who were by no means favourable to the use of pressure, and had no experience of the way of carrying it out. Then in hospital practice many little details, which in private receive the attention of the surgeon himself, are confided to the students and dressers, or to nurses. Besides, the great majority of these cases were treated by instrumental compression, and it is beyond all question that digital pressure is in every way superior.

Yet even if we allow that failure must continue to occur in half the cases so treated, we ought not to be discouraged from the use of pressure, however successful the ligature may be, unless there is some great reason for believing that it will spoil the prospects of the successful treatment of the case afterwards. For the application of pressure in favourable cases certainly exposes the patient to no risks, while the ligature of the femoral artery does. The only case in which death occurred while the patient was under treatment was one in which pleurisy accidentally supervened. But there can be no doubt that in this, as in other methods of treatment, disasters will occur. Thus, there are eight cases in which amputation became necessary from gangrene, rupture, or suppuration of the sac; of these five died, and three recovered.

Nor must the fact be lost sight of that in some cases instrumental compression, and also digital pressure, when ill or carelessly applied, may produce gangrene by obstructing the vein, while either of these methods, if it does not cure, may easily aggravate the disease; and finally, genuflexion has dangers of its own which lead to rupture of the sac, and sometimes to gangrene of the integuments which cover it. So that in a small proportion of cases, pressure has certainly spoilt the case so completely as to render amputation necessary. There are, too, cases in which pressure produces a direct effect on the artery, and some in which the tissues around the artery are much thickened and consolidated, so that the tissues above and around the vessel are brawny, the artery and vein closely connected together, and the walls of the artery thickened and hardened at the seat of pressure. All experience and authority lead to the conclusion that direct pressure on the structure of the vessels on which the force acts produces no visible or tangible anatomical lesions; but this position can hardly now be sustained, for everyone is agreed that the action of long-continued compression is often plainly perceptible on the cellular tissue which supports and unites the vessels.

The results of compression are probably susceptible of much improvement, but nevertheless are yet satisfactory as far as they go.

In the next lecture the effect of previous pressure on the success of the ligature will be discussed.

## ORIGINAL COMMUNICATIONS.

### CEREBRO-SPINAL SCLEROSIS.

By EDWARD LONG FOX, M.D., F.R.C.P.

So much is being done on the morbid anatomy and symptomatology of sclerosis of the nervous centres, that it may be well to give a brief *résumé* of Bourneville's and Guerard's observations on this subject—observations founded, it is true, on too limited a number of cases, but making a valuable addition to our knowledge. They speak of the spinal form and the cerebro-spinal.

#### The Spinal Form.

*Symptoms.—Début* sudden or gradual—most commonly the latter,—ushered in by feelings of weight, formication, increasing weakness in one or both lower limbs. The symptoms vary according to the stage of the disease. In the first period we find paresis of the lower limbs and afterwards of the upper. This may show remissions and exacerbations. Progress painful. Help needed in walking. The patient staggers like a drunkard. After a variable time rhythmical tremors occur in the upper and lower limbs. These tremors only accompany acts of voluntary movement. No tremor during repose. Sensation is retained. There is no disturbance in the functions of nutrition, respiration, or circulation.

In the second period the paresis is succeeded by a paralysis, which becomes more and more complete. Aggravation of all preceding symptoms. Soon rigidity and contraction of all the paralysed limbs, and attacks of tonic convulsion of the rigid limbs, especially the lower. The lower limbs are also the seat of spasmodic rigidity, with intermissions of relaxation. The contraction affects first the lower limbs, then the upper, and lastly the trunk.

In the third period all motor power vanishes. Contraction is permanent. The patient becomes bedridden. Sensation generally good. Reflex power is diminished or lost. Nutrition is interfered with—and thus emaciation and bedsores. Intelligence is preserved throughout.

#### The Cerebro-Spinal Form.

*Symptoms.—Début* may be sudden or gradual—(*a*) by sudden or progressive feebleness of one or both lower limbs; (*b*) by their feebleness, accompanied by cerebral or ocular phenomena; (*c*) by cerebral or ocular phenomena, followed by feebleness of the lower limbs. 1st period: Motor phenomena as in the spinal form; feebleness of sight, diplopia, vertigo, headache, embarrassment of speech, transitory apoplectiform attacks without loss of consciousness; after a variable time, tremor of the lower limbs, then of the upper, then of the head, then of the eye—"oscillation," nystagmus (which may be monocular, but is generally binocular)—then of the tongue. 2nd period: Aggravation of the previous symptoms, then rigidity or contraction, and convulsions, especially of the upper limbs, usually tonic, but sometimes clonic; sometimes atrophy of the retinal papilla; speech more embarrassed; sensation good; intelligence becomes gradually impaired, and a state even of hebetude is occasionally met with; respiration, circulation, and digestion normal, except that there may be constipation; urine healthy.

3rd period: Increase of spasm, rigidity, contraction, and paralysis; speech unintelligible; intense thirst; swallowing difficult; nutrition interfered with; emaciation; death from pulmonary complications.

These authors then give the following comparisons between sclerosis and other morbid conditions, with reference to diagnosis:—

*Sclerosis Spinal.*—Uncertainty of walk, due to feebleness and paresis of the lower limbs, the initial symptom. Motor troubles due to paresis or paralysis. Locomotion feeble. Vertigo. No loss of equilibrium on shutting the eyes. Sensation normal. Contraction present. Pain in lower limbs rare. Slight disturbance of sight; diplopia; headache; speech embarrassed, "*zezayant*," never voluble.

*Sclerosis Cerebro-Spinal.—Début* gradual. Paresis, followed by tremor. The tremor is only seen on intentional movements. It first attacks the lower limbs, and then ascends. Nystagmus. Locomotion uncertain, "*titabout*," perhaps in consequence of the tremor. Hebetude. Distinct lesion found.

*Paralysis Agitans.—Début* often sudden. Tremors incessant, beginning in the upper limbs, and then descending. No nystagmus. Locomotion slow at first, and gradually becomes a run, as if the patient was always running after his centre of gravity. Intelligence preserved. A very peculiar shape of hand. No post-mortem appearances known.

*Senile Trembling.*—A disease of old age, whilst sclerosis is of middle age. Tremors almost permanent, beginning in the head, and then attacking the lips, chin, tongue, and limbs.

*Alcoholic Tremor.*—The tremor occurs at intervals, more in the morning than in the evening, diminishing after a dose of alcohol; begins in the hands, then attacks the arms, legs, tongue, and lips. Speech hesitating, not "*zezayant*." Vertigo; insomnia; hallucinations; amblyopia; weakened intelligence.

*Mercurial Tremor.*—Only attacks workers in mercury. Vibratory movements. All the limbs attacked at once. No nystagmus. Tremor constant. Cure the rule.

*General Paralysis.*—Arrest of speech in the middle of a word, but the patient is voluble; he has no knowledge of anything being wrong with him, and it irritates him to tell him of it. Tremor continuous; but general paralysis and sclerosis may co-exist.

*Locomotor Ataxy.*—Inco-ordination a late symptom, being preceded by pain in the back, and sometimes by paralysis of some of the nerves of the orbit. No paralysis of limbs, only inco-ordination. Locomotion disordered; equilibrium lost if the patient shuts his eyes. Muscles strong individually. Contraction only present in those cases in which the posterior columns have been attacked by sclerosis, and is a late symptom. There is usually pain in the lower limbs, and later in the progress of the disease more or less anæsthesia; a peculiar sensation in the soles of the feet, as if the ground was cotton-wool. Vertigo uncommon. Feebleness of sight, amblyopia, or amaurosis—at first temporary, then permanent—or paralysis of the muscles of the eye, causing ptosis, or external or internal strabismus, or dilatation of the pupil. A disease of adult age.

*Chorea.*—Jactitations not only of voluntary movements, but often also of involuntary. Paresis may follow jactitation. The movements begin first in the arms, then face, trunk, lower limbs. Locomotion occurs in irregular jumps. Temper irritable. A disease of childhood.

These authors then give a carefully considered account of the morbid anatomy of sclerosis, both as it appears to the naked eye and under the microscope. The upshot of their observations is to find proliferation of nuclei and concomitant hyperplasia of the reticulated fibres of the neuroglia as the initial and fundamental facts; degenerative atrophy of the nerve-elements being secondary and consecutive.

There are several questions that may be asked of these authors.

Is it fair to draw a marked distinction between cerebro-spinal sclerosis and paralysis agitans, on the ground that in the latter disease no morbid appearances are found?

Is nystagmus an invariable phenomenon attending cerebro-spinal sclerosis, and on what does it depend?

Is the tremor only seen in cerebro-spinal sclerosis on intentional movements?

Is it scientific to draw a very real distinction between paralysis agitans and senile trembling?

Can we in all cases distinguish between locomotor ataxy and cerebro-spinal sclerosis; or, rather, is not the former disease often associated with the morbid anatomy of the latter?

In one word, can we speak of cerebro-spinal sclerosis in any way as a morbid entity, possessing its own symptomatic phenomena, and owning lesions that are not met with in some other diseases?

To take these points in order. Is paralysis agitans entirely devoid of a morbid anatomy? It is quite true that in certain cases the autopsy has shown no important alteration of the nervous centres, even where there has been microscopical examination; though even in these cases the difficulty of examining every part of the meso-cephale is great. In other and more numerous cases there has been observed general or diffuse induration of the medulla oblongata, the pons, the corpora quadrigemina, sometimes also of the cervical region of the cord, especially of the lateral columns. Other alterations have also been met with, such as lacunæ in the meso-cephale, softening of the crura cerebri, simple rarefaction of the nerve-tubes of the cord. In a case in which the symptoms of paralysis agitans had been confined to a right upper limb, the left optic thalamus was the seat of a sarcoma the size of a large nut. The inconstancy of these lesions takes away from them all specific character, but they existed coincidently with the phenomena of paralysis agitans, and, considering their situation, they must have had a share in the causation of the symptoms. Jaccoud says that "paralysis agitans is certainly a disease of the meso-cephale, but it is a neurosis—that is to say, a disease without any constant and uniform anatomical characteristic. Practically, however," he goes on to say, "it is of importance to remember that sclerosis of the meso-cephale is the alteration most frequently connected with this neurosis."

Drs. Murchison and Cayley (*Path. Soc. Trans.*, xxii., 24) record a case of paralysis agitans, in which the spinal cord was examined after preparation. The cortical or connective-tissue layer of the cord appeared thickened, and presented an increased number of nuclei. Irregular tracts and patches of connective tissue, thickly nucleated, passed from the cortical layer into the substance of the cord, the reticulum of which was much thickened. These patches were most frequently met with near the exit of the posterior roots of the nerves, which themselves did not appear altered. The place of the central canal was an oval tract, crowded with cells of various shapes and sizes, the majority having the character of leucocytes, none presenting the character of the normal epithelium of the canal. This oval tract occupied not only the site of the canal itself, but also that of the surrounding central substantia gelatinosa. The capillaries of the grey matter, and to a less extent of the white, were distended with blood; and here and there were small points of extravasation. Through the whole cord, chiefly in the grey matter, were small deposits composed of leucocytes or exudation cells. The first three changes were due to a chronic, the last two to an acute process.

Joffroy's account of the morbid changes in three cases (*Gaz. des Hôp.*, 1871, p. 602) is very similar. In all there was proliferation of the epithelium completely filling up the central canal; great proliferation of nuclei in the neighbourhood of the ependyma; pigmentation of the nerve-cells, especially those of Clarke's columna vesiculosa, and a large quantity of amyloid corpuscles. In the third case there was a sclerotic patch of connective tissue in the neighbourhood of the pons, with dilated vessels. The conclusion to which the writer comes is that the seat of lesion in paralysis agitans is to be looked for in the cord.

In Oppolzer's case, besides other cerebral lesions, the pons and the medulla oblongata were very manifestly indurated. The spinal cord was firm, and the medullary substance of the lateral columns, principally in the lumbar region, presented opaque grey striæ. All these lesions were found, on minute investigation, to be due to an abnormal production of connective tissue.

In a case quoted by Dr. Handfield Jones, besides an apoplectic cyst in the right optic thalamus, the pons and medulla oblongata were remarkably stiff, and the lateral columns of the cord, especially in the lumbar region, were traversed by greyish opaque streaks. A similar condition obtained in Skoda's case, with the additional appearance of a flattening and stiffness of both optic nerves.

Other instances of similar lesions might be brought together; but these are sufficient to prove that cerebro-spinal sclerosis cannot be separated in many cases by any strict line of demarcation from paralysis agitans.

These cases, too, answer our second question with reference

to nystagmus. This symptom was not noted in any of them, and the post-mortem appearances render it unlikely that it would have been found during life. For on what does nystagmus depend? It is a tremor of the muscles of the eyeball, and must therefore depend on lesion of the nervous centre that rules the movements of these muscles, or on reflex conditions affecting this centre. Now, Professor Ferrier has to a certain extent proved that nystagmus is an epileptiform affection of the cerebellar oculo-motorial centres, and that the cerebellum is the co-ordinating centre for the muscles of the eyeball. The sole connexion, therefore, between this symptom and cerebro-spinal sclerosis is the possibility of some portion of the cerebellum being indurated by this connective tissue growth.

Nystagmus, again, is totally independent of voluntary or intentional acts, and is itself an instance of that kind of tremor that our authors speak of as not existing in cerebro-spinal sclerosis.

Proceeding a step further, can paralysis agitans be classified as a distinct morbid affection, unconnected with senile trembling? The answer to this should be, that senile trembling is a form of paralysis agitans, but that not all paralysis agitans is senile trembling. They own, however, a common cause—interference of some kind or other with nutrition.

The truth is, this form of lesion has been found in paralysis agitans, in tetanus, possibly in chorea, in general paralysis of the insane, and in locomotor ataxy. The symptoms vary according to the special position of the morbid growth in the brain and spinal cord. It may be seen sometimes in progressive muscular atrophy, occasionally in infantile paralysis, and in various conditions of paraplegia. In locomotor ataxy the coincidence of the lesion in the cord and within the cranium is evidenced by the phenomena attending vision. The amblyopia and even amaurosis in some cases of locomotor ataxy are not directly connected with the lesions of the cord: they depend on the fact that sclerosis, similar to what obtains in the posterior columns of the cord, attacks also the optic nerves or the corpora quadrigemina. We find in these cases a form of atrophy of the disc, to which is due the partial or total blindness.

A case now under my care illustrates some of these points:—L. L., aged twenty-four, female, has been ailing for nearly eight years. Has suffered from pains in the limbs; now locomotion is carried on with a very evident want of co-ordination. On being placed to stand with her feet pressed together and her eyes shut, she loses her equilibrium. Feels the ground spongy as she walks. Has been for some time almost blind of the left eye, and the sight is somewhat impaired in the other. There is almost complete atrophy of the left disc, and one large vein courses over the retina, the rest of the vessels, arteries, and veins being abnormally small. In the right eye the vessels are pretty normal, and the disc only a little cloudy. There is incessant nystagmus. So that in this case we probably have sclerosis of the posterior columns of the cord, and sclerosis of some portions of the cerebellum, whilst we certainly have sclerosis of the left optic nerve. It proves, what many other cases might be brought to prove—that this morbid condition does not give rise, *per se*, to symptoms always of the same kind, but that the phenomena attending it depend entirely on the position of the foci of induration in the cerebro-spinal centres.

# REPORTS OF HOSPITAL PRACTICE
IN
# MEDICINE AND SURGERY.

## GUY'S HOSPITAL.

### THE ADMINISTRATION OF THE CROTON CHLORAL HYDRATE IN INTOLERANCE OF LIGHT.

(Under the care of Mr. BADER.)

[Communicated by Mr. P. OWEN-JONES.]

*Case* 1.—Anne B., aged 18, was admitted with corneo-iritis of both eyes and great photophobia. She commenced the croton chloral hydrate on December 24, 1873, taking five grains three times a day. Daturin of the strength of one grain to one ounce of water to be applied six times in one hour every evening. On January 16, 1874, all the intolerance had subsided; and on the 27th she was discharged, having had no return of the photophobia.

*Case* 2.—Mary C., aged 11, was admitted with pannus with granulations. Commenced croton chloral hydrate grs. v. three times a day on January 16, 1874. Her left pupil was very contracted, and intolerance was so great she could hardly bear to open her eyes. On the 23rd, there being no improvement, the dose was increased to ten grains. On the 31st the dose was increased to twelve grains four times a day, after which she was slightly better. Slight improvement continued until February 14, when the dose was increased to fifteen grains three times a day. On the 16th she omitted the medicine purposely, and the next day was not so well. Medicine omitted altogether on the 24th, and greenstone applied to lids.

*Case* 3.—Mary S., aged 19, admitted with corneo-iritis with great photophobia. Commenced croton chloral hydrate on December 24, 1873—dose, grs. v. ter die sum. On January 1, 1874, intolerance had greatly subsided. On the 18th she could look at the light without flinching. On the 23rd all intolerance had subsided, and she was discharged on February 2, without any return of the photophobia.

*Case* 4.—Florence B., aged 8, admitted with corneo-iritis, epiphora, and photophobia. Commenced croton chloral hydrate gr. v. ter die sum. on January 13, 1874. On the 17th was able to look at the light. Improvement continued until February 6, when she was not so well on account of the fog, which was very dense. Dose increased to ten grains ter die. On the 16th almost all the intolerance had subsided, so the medicine was discontinued. On the 18th she was not so well, so the medicine, five grains ter die, was again given, and on March 2 all the intolerance had subsided.

*Case* 5.—Celia S., aged 24, admitted with closed pupils, ciliary redness, and photophobia, tension —1, the left eye being the worst. Commenced croton chloral hydrate January 13, 1874, gr. x. ter die. On the 17th there was slight improvement. On the 23rd she could look at the light with both eyes, but the left still continued worse than the right. On the 27th all the intolerance had subsided in right eye. On February 9 almost all intolerance had subsided, and she went out of the hospital.

*Case* 6.—Mary D., aged 15, admitted with pannus with granulations and photophobia. Commenced croton chloral hydrate January 21, 1874, gr. x. ter die. On the 23rd photophobia had subsided considerably. On February 9 intolerance had greatly improved; dose increased to fifteen grains ter die. On the 14th there was very little intolerance. On March 2 medicine omitted, and lids touched with greenstone.

*Case* 7.—Ellen B., aged 7, admitted with corneitis and excessive photophobia. Commenced croton chloral hydrate gr. viij. ter die, February 5, 1874. On the 9th there was a very marked improvement in the intolerance of light, which continued until the 13th, when the photophobia returned with increased severity. On March 2 there was no improvement at all. Medicine continued.

*Case* 8.—Clara S., aged 15, admitted with corneo-iritis and great photophobia, so that she could not bear the slightest light. Commenced croton chloral hydrate gr. x. four times a day on February 10, 1874. On the next day there was a decided improvement in the intolerance. On the 13th she complained of great pain in the head, so the medicine was discontinued. On the 16th she again took five grains ter die, after which the photophobia gradually lessened, and on March 2 there was very slight intolerance.

*Case* 9.—Mary B., aged 49, admitted December 30, 1873, with closed pupil, intolerance, and neuralgia over forehead. Commenced croton chloral hydrate gr. xv. ter die on February 6, 1874. On the 10th there was no improvement in intolerance, but pain in forehead was less. Increased the dose to twenty grains ter die. Intolerance did not subside, but pain in head grew less.

*Case* 10.—Julia B., aged 47, admitted February 28, 1874, with intolerance of light, but no ocular changes. Commenced croton chloral hydrate gr. xv. ter die on March 1. She gradually improved, but photophobia did not entirely subside. Went out March 20.

*Remarks.*—It appears that only young people, and only those suffering from genuine syphilitic corneo-iritis, were benefited by the croton chloral hydrate. As regards the dose, I found that between five and ten grains was the most beneficial amount, although in one case I gave twenty grains four times a day without producing much good or any bad symptoms. All the patients complained of the nasty taste of the medicine, but in only one did it appear to produce any symptoms which caused me to stop giving it.

## LONDON HOSPITAL.

### NEW OPERATION FOR EXOSTOSIS BY MR. MAUNDER.

We are informed by Mr. J. H. Mitcheson, House-Surgeon, that on Wednesday, July 8, Mr. Maunder treated a case of exostosis of the femur by subcutaneous fracture. The patient, about sixteen years of age, had a bony growth on the outer side of her left thigh, close to the knee-joint. The integument over the tumour having been covered by a piece of leather, the growth was laid hold of with a large pair of pliers, and broken off with comparative and unexpected facility. Some little swelling and tenderness have resulted.

On July 1 Mr. Maunder performed subcutaneous section of the neck of the femur in a child eight years old. The wound has healed without any suppuration or discharge whatever.

### MR. MAUNDER'S CLINIC.

Four patients who have undergone operation have just presented themselves at this hospital. As the chief objects of our art are to save life and make it as endurable as possible when operations are submitted to, the result of these latter may be recorded with advantage:—

*Case* 1.—B., a female, 15 years of age, underwent abscision of the head, neck, and great trochanter of the femur, three years ago. The wounds are soundly healed, and the foot of the affected member is four inches from the ground. This shortening is due partly to loss of bone by operation, and partly to an arrest of growth of all the bones of the extremity. The limb is a useful one, some amount of flexion, extension, and rotation being present.

*Case* 2.—S., male, sustained a severe injury to the foot about twelve years ago. Amputation *à la Pirogoff* at the ankle-joint was performed, and a most useful stump resulted.

*Case* 3.—K., male, aged 18, suffered injury to the foot three years ago. Amputation *à la Pirogoff* was performed. A more useful or shapely stump cannot be imagined, the pad of the heel being thick, firm, and elastic.

*Case* 4.—E. E., female, 12 years old, was submitted to excision of the right knee-joint two years ago. Firm union exists, and the limb is a serviceable one. On measurement the right thigh is found to be two inches and a quarter shorter than its fellow, while the right fibula is three-quarters of an inch shorter than its fellow. The patient has come into the hospital for a high-heeled boot.

## WEST LONDON HOSPITAL.

### HEMIPLEGIA DUE TO ARTERIAL EMBOLISM.

(Under the care of Dr. THOROWGOOD.)
[From notes by Mr. Sobey, late House-Surgeon.]

Mary C., aged twenty-two years, was admitted into the West London Hospital early in May, 1873. She was reported to have had several attacks of acute rheumatism.

On admission, patient is very pale and weak, and keeps her bed. Pulse usually about 100; temperature ranged from 101° to 102°. A loud mitral systolic murmur is heard over the heart's apex. The bases of the lungs are deficient in resonance; some coarse râle is heard in the breathing. The urine contained a small amount of albumen. The patient was treated with quinine, digitalis, and iron as the chief medicines, but mended very slightly during three weeks.

June 1.—She had hiccough, and on rising up in her bed suddenly she lost all power over her left side. She is not easily roused now to consciousness, but protrudes her tongue when told so to do, and it points to the left side. The mouth is drawn over to right side. She cannot inflate her cheeks; can eat and swallow readily. Left leg is drawn up when foot is tickled. The cardiac murmur is notably less loud. Temperature of left axilla 102·5°, of right axilla 102·1°.

Dr. Thorowgood and Mr. Sobey concluded that a piece of fibrin had become detached from the valves of the heart, and had plugged some vessel on the right side of the brain. There was little change in the symptoms till June 10, when the patient died.

The post-mortem examination was made and recorded by Mr. Sobey as follows:—Brain: Veins of posterior lobes engorged, as were also the sinuses; very little fluid in the ventricles; right corpus striatum soft, discoloured, and small; part around and optic thalamus rather congested; left corpus striatum and optic thalamus normal; internal carotid artery on right side occluded by a clot of fibrin just as it enters the skull; this clot extends as far as circle of Willis. Heart: Pericardium contained serous fluid, about eight ounces; right ventricle full of clot; left ventricle hypertrophied; mitral orifice not constricted, but the valve is covered with large warty vegetations; aortic valves healthy; some atheroma of ascending aorta. Lungs: Upper lobe of left lung somewhat shrunken and collapsed; in right a small mass of earthy concretion found with condensed substance; bronchi full of muco-purulent secretion. Spleen contained several fibrinous infarctions. In each kidney a firm whitish fibrinous infarction was found. Liver healthy; a few scattered nodules were observed over the peritoneal surface generally.

The antecedent history of rheumatism in this case, and the very evident disease of the mitral valve, rendered the cause of the sudden hemiplegia and complete loss of motion on the left side tolerably certain as to its nature and situation. The damage done to the kidneys by the fibrinous deposition that had taken place in those organs was assumed as the cause of the albuminuria which was present throughout the progress of the case.


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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

# Medical Times and Gazette.

SATURDAY, AUGUST 8, 1874.


## WANTED, A WET-NURSE.

We recollect in bygone days having heard a serio-comic song beginning—

> "Wanted a governess, able to fill
> The post of tuition with competent skill."

And the song goes on to reckon up so many kinds of knowledge, useful and ornamental, such good health and niceness of appearance, and such good temper and patience, amongst the qualities desired, that the young man who sings the song declares at the end, that when he finds so perfect a creature he shall make her his wife.

This song is vividly brought to our recollection as we read Dr. Nathan Allen's discourse on "Medical Problems of the Day," delivered before the Massachusetts Medical Society, in June, 1874.(a) Some time ago, in an article on "National Degeneracy" (*Medical Times and Gazette*, March 25, 1871), we

(a) Published by Williams and Co., Boston. 1874.

called attention to Dr. Allen's well-timed warning against the causes which war against the health and fertility of his own countrywomen—warnings equally useful on this side of the Atlantic. In the discourse lately delivered he enlarges on the same topic, and, amongst other points, dwells so strongly on the characteristics of a good wet-nurse, that the evident corollary is, that men who marry would do well to seek for these characteristics in their wives. "No fact in vital statistics," he justly tells us, "is more firmly established than, that in order to promote health and save life the infant should be nursed at the mother's breast." Chemists and physicians have tried in vain: nothing can be found which is a substitute for "pure breast-milk." For this, nature has made ample provision in the normal organisation of woman. In a perfect woman, "the lymphatic and sanguine temperaments" are well developed, "together with vigorous and healthy digestive organs." "A good nurse must have well-developed mammary glands, strong digestive organs, and even uniform disposition. She must have good health, freedom from all disease, no particular weakness nor excessive nervousness." Qualities, these, not to be despised!—and we must say that although a wet-nurse may not have all the qualities of a wife, yet a wife should have all those of a wet-nurse.

Unfortunately, Dr. Allen is obliged to confess that many of his countrywomen cannot be good nurses, because they have "neither the organs, nor nourishment requisite for even a beginning." He looks upon this as but a symptom and a part of that general want of the power of producing and rearing a lively offspring, which he says marks the American woman side by side with her more favoured Teutonic and Celtic sisters; and which threatens to put into a minority the native Americans, the descendants of the early, hardy, and prolific settlers.

As the outcome of his observations, Dr. Allen propounds a law of human increase to the following effect:—In order that a people shall increase, it is necessary that their organisms shall be well and harmoniously balanced. Excess of development of any part of the system is hostile to fertility. It is not sufficient that the population be not sickly, but one set of organs must not preponderate too much. "Families in which are found genius, great talents, and supreme devotion to intellectual pursuits are not prolific." The families of "great scholars, authors, poets, of nearly all who have been eminent or distinguished in any department of science" generally become extinct.

In the case of the New England women, according to Dr. Allen, a double force acts against fertility. "If," he says, "that portion of the brain whose functions include attachment to the other sex, love of offspring and domestic life—those strong instincts which centre in the family and the home—is not properly developed or trained, but other portions of the brain embracing the selfish faculties are continuously exercised," the whole womanly organism is changed. "It tends to undermine the foundation of the marriage and maternal relation, which rests on the purest and most powerful instincts of nature, and transfers it to one of interest and convenience. The relation is, in fact, already coming to be viewed more and more in the light of a partnership as a matter of business and necessity; or, in other words, to be based upon the supremely selfish elements of human nature. That such large numbers of our young married women should be disinclined to assume the duties of maternity indicates something wrong. However desirable or important may be the cultivation of the mental faculties, these alone never bind and cement society permanently in the home and in the family. In such cases children are a burden, home is irksome, domestic work not agreeable."

Thus Dr. Allen alleges that in the training of some of his countrywomen the faculties conducive to fertility are repressed, whilst the intellectual faculties are cultivated to excess; and these, as Professor Samuel Haughton long ago demonstrated, use up far more nourishment than muscular work does. The women are brilliant and *spirituel*, but lacking in bone and muscle. They do not deserve the Homeric epithet "deep-bosomed." We may observe that Dr. Allen equally denounces stupidity and mere animalism as contravening the law of harmonious development.

It is very significant that such warnings on the education of women in relation to the increase of population should come to us from America. It is a warning which we may well accept; and young men, when they think of marriage, may bear in mind Dr. Allen's law of the need of even development of the whole organism; and that, although no man should ally himself with an animal or a fool, yet there comes a time in every happy marriage when the brain may rest awhile, and when "wanted, a wet-nurse" will be the word unless the wife has her share of the most beautiful and bountiful part of the female organism.

## THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The forty-second annual meeting of the British Medical Association will be held next week at Norwich, from Tuesday the 11th to Friday the 14th inclusive. At present there is every prospect of a highly successful gathering. The number of visitors and the variety of attractions must of course fall short of those of last year in the metropolis; yet the list of papers which are to be read, and the unusual number of places of interest at and near Norwich, promise that the success of the coming meeting will not be inferior to that of its predecessors in the provinces. Country members will not flock to Norwich as they last year did to London in such unexpected numbers; but, on the other hand, we do not doubt that very many of their metropolitan brethren will embrace the opportunity of a few days of precious and pleasant relaxation in the country, especially those of them who may be so unfortunate as neither to have enjoyed nor to have the prospect of enjoying a regular holiday.

The President-elect for the coming year is Dr. Copeman, of Norwich, to whom the present President, Sir William Fergusson, will resign the chair at the first general meeting. The daily general meetings will be held as usual, but the real business will of course be transacted in the sections. Of these there will this year be four only—Medicine, Surgery, Obstetric Medicine, and Public Medicine. In the first three of these sections addresses will be delivered respectively by Dr. Russell Reynolds, Mr. William Cadge, and Dr. Matthews Duncan. These addresses, as well as that of the President, will be published in our pages in due course.

The list of papers which have been promised includes among the authors the names of Sir John Rose Cormack, M.D.; Drs. J. W. Ogle, Braxton Hicks, Matthews Duncan, Althaus, Ferrier, Edis, Humphry, Marion Sims, Gowers, Morell-Mackenzie, and Fothergill; and of Messrs. Lawson Tait, Barwell, Pugin Thornton, etc. Among other objects in the annual museum, the great collection of calculi from the Norfolk and Norwich Hospital will be exhibited.

The great value of the social element in the meetings of our various associations, societies, and conferences is so universally recognised, that it need not be insisted upon here. The pleasant days spent on similar occasions at various good towns are not likely to be easily forgotten; yet we doubt whether the coming meeting is likely to yield to its predecessors in this respect. The character which Norwich enjoys for hospitality is universally recognised and thoroughly deserved, and that it will be again as ever fully sustained is testified by the programme which lies before us for next week. Norwich itself is full of places of interest, an account of which

will be found in another column. We need scarcely inform the reader that the county of Norfolk, and especially the neighbourhood of the county town, and the adjacent coast abound in places to which most agreeable visits may be paid. The first regular excursions will be made on Friday afternoon to the Cathedral, to the Waterworks, the Sewerage Works, and Bishop Hall's Palace; and to Cossey Hall and Park. But the principal excursions are reserved for Saturday, after the completion of the more serious business. It has been arranged that one party shall visit Wells, Holkham Hall and Park, the Danish Camp at Warham, Bonham Priory, and Walsingham Abbey; a second party will go to Swaffham, Castleacre Priory, Houghton Hall, and Rayuham Hall; a third to Aylsham Church, Blickling Hall, Felbrig Park, Beeston Hills, and Cromer, returning by Gunton Park; a fourth to Frittou Broad; a fifth to Herringfleet and Somerleyton Hall; and a sixth to Lowestoft and Yarmouth. There will also be a yacht excursion.

## THE NATURE AND ORIGIN OF TYPHOID FEVER, CONSIDERED MORE ESPECIALLY WITH REGARD TO ITS PREVENTION AND TREATMENT.(a)

### III.

In consideriug the origin of typhoid as a specific disease, spreading only by its own proper poison, two difficulties meet us. First, we know not the exact period of incubatiou in some cases that appear to be very short, in others it apparently lasts weeks; and, secondly, we know not how long the specific germ, which is capable of causing the fever, can exist in a state capable of renewed growth outside the body. Here we take it for granted that the disease is occasionally propagated in the fashion above indicated; and that this is true, few will, we think, dispute. Nay, more, it can be fairly shown that this is so in a great number of instances—perhaps even the majority of instances, though not meantime in all. As already pointed out, those instances where typhoid fever is supposed to have arisen *de novo* are in many cases unsatisfactory as regards history. All loopholes have not been closed excluding the possibility of a specific poison introduced in the ordinary way, and a good many of them were observed at a time when the idea of a specific agent invariably acting as the cause of typhoid fever was not generally entertained. In truth, the so-called pythogenic theory cannot in the majority of cases be for a moment entertained. We are all acquainted with places constantly saturated with evil odours of all kinds, including not unfrequently that of decomposing fæcal matter, and yet there is no fever. Horrible though it may seem, these matters make their way into drinking-water, and yet uo typhoid fever follows. To excite an outbreak of typhoid something more is necessary, and the question is—What is this something? Without doubt it has been shown by the researches of Drs. Budd, Ballard, and many others that the special exciting cause is typhoid excreta; and if so in a certain number of instances, there is a strong probability that it is so in all. In the typhoid stools undoubtedly are to be found the germs which propagate typhoid in a certain number of instances; and if putrid animal matter will not alone generate typhoid, it certainly constitutes a nidus, in which these germs thrive and apparently retain their vitality for a long period of time. The nature of these germs is unknown to us, but, inasmuch as they retaiu their power of self-propagation, they must consist of particles more or less minute of living matter; and it is certainly of importance not to confound the half or wholly dead masses of cheesy glands eliminated in the course of the fever, and giving the characteristic appearance to typhoid stools, with these active organisms. In point of fact, it seems to us that one great difficulty in the way of the universal acceptation of the germ theory as the cause of typhoid has been this difficulty of appreciating the early period at which these typhoid stools begin to contain the germs of the malady. Those who have seen much of typhoid fever know well the cases where, beyond a diarrhœa, the patieut seems, comparatively speaking, fairly well; at all events, is able to walk about, and perhaps to carry on his usual avocations. In such a patient the symptoms may suddeuly take a serious turn, showing that the malady has inappreciably reached a considerable height whilst altogether unsuspected. Such a patient may have been, unknown to himself and others, spreading the fever broadcast, for everything points to the fact that the original focus of the disease may contain only a small quantity of infective matter to give rise to the most serious consequences. Nothing could show this more clearly than the curious epidemic caused by the milk of a dairy company in Marylebone, the history of which was so well worked out by Dr. Murchison. We are only, too, beginuing to appreciate the strong vitality of these germs under favourable circumstances. Liebermeister, in a capital article ou the subject of typhoid, in Ziemssen's newly-published "Handbook of Medicine,"(b) in which substantially the same view as that advocated by us is adopted, quotes from von Gietl an exceedingly instructive illustration of this. In a village where for a long time no typhoid had prevailed, the disease was introduced by a patient who had acquired the disease in Ulm. The patient's discharges were thrown ou the dust-heap, and when some weeks later this was in part removed, of five persons engaged in its removal four took unmistakable typhoid. The discharges of these persons were buried deep iu the same dunghill, but when nine months later this was entirely removed, one of the two men so employed was seized with typhoid and died. These two sets of facts go far, in our opinion, to explain the difficulty heretofore experienced in connecting outbreaks of typhoid with direct introduction of typhoid germs. The only other argument advanced is, comparatively speaking, worthless: it is urged that such sequence can rarely be traced in towns and large cities. This is quite true; but when we consider the universal prevalence of the water-closet system, with drainage more or less imperfect, the ventilation of sewers through cisterns and into bed-rooms, together with the more or less continued prevalence of typhoid fever in some part or other of large towns, our wonder at this ceases—in fact, is turned the other way, for it seems much more wouderful that we should ever find out the exact cause of an outbreak of enteric fever than that we should sometimes miss it. Moreover, we are only beginning to appreciate certain agencies in propagating fever. Milk is now one of these, but we shall be surprised if it stops there.

(a) "Lectures on Fever," delivered in the Theatre of the Meath Hospital and County Dublin Infirmary, by William Stokes, M.D., D.C.L. Oxon., F.R.S., Regius Professor of Physic in the University of Dublin, Physician to the Queen in Ireland; edited by J. W. Moore, M.D., F.K.Q.C.P., Assistant-Physician to the Cork-street Fever Hospital, etc. London: Longmans. Pp. 439.

"A Treatise on the Continued Fevers of Great Britain," by Charles Murchison, M.D., LL.D., F.R.S., F.R.C.P., Physician and Lecturer on the Principles and Practice of Medicine, St. Thomas's Hospital, etc. Second edition. London: Longmans. Pp. 729.

"Typhoid Fever: its Nature, Mode of Spreading, and Prevention," by William Budd, M.D., F.R.S. London: Longmans. Pp. 193.

(b) Handbuch der Speciellen Pathologie und Therapie, herausgegeben von Dr. H. O. Ziemssen, Professor der Klinischen Medicin in München. Zweiter Band, Erster Theil. Typhus Abdominalis, von Professor C. Liebermeister in Tübingen.

## THE WEEK.

### TOPICS OF THE DAY.

The sixteenth annual meeting of the New Sydenham Society will be held in the Assembly-room, Norwich, on Thursday, August 13, at 9 o'clock. The annual report and balance-sheet will be submitted, the officers for 1874-75 elected, and other business.

A case which has attracted much interest was decided at the

Warwick County Court last week. We have already, in our number of July 4, given a report of the first part of the case, under the head of Legal Intelligence, but it is one of so much importance that we give again a summary of it. It was an action brought by Dr. Carter, of Clarence-terrace, Leamington, against Mr. Booth Mason, a gentleman of independent fortune, residing at Arley-villas, Lillington, to recover ten guineas for professional services rendered to him and to his family. As the case is of considerable interest to the profession and the public, we prefer to give it somewhat in detail, rather than in an abridged summary. In December, 1871, Mr. Fenn Clark, the defendant's medical attendant, was called in to Mrs. Mason and the children, some of whom were suffering from scarlet fever. Mrs. Mason was near her confinement, and, contrary to Mr. Clark's solicitations, declined to leave home for that event to take place. Mrs. Mason was seized with the disease and died. A day or two before her death Mr. Mason himself was stricken down, and the aspect of affairs became so alarming that Mr. Clark, after consulting with some of Mr. Mason's personal friends, determined to call in the assistance of Dr. Carter. Six times in consultation with Mr. Clark, and four times when the surgeon was unable to attend, in consequence of an influenza cold, did the plaintiff see the defendant, and in the end the defendant became convalescent, and was able, during the following month, to undertake a journey into Lancashire. The ten guineas were for these attendances. The contention on the part of the defendant was that plaintiff acted as *locum tenens*, or substitute, for Mr. Clark while the latter was unwell, and that therefore Mr. Clark was responsible for the charge. In support of this the defendant said he paid the surgeon his bill of £30, and from its magnitude fully supposed it included Dr. Carter's fees. It was not until fourteen months had elapsed that he was undeceived on the point by the reception of the physician's bill. The question on which his Honour had adjourned the case from the last court, was on a point of law—whether, in the absence of any express stipulation, a medical man was entitled to recover? It was now submitted that under the 31st section of the Medical Act, the plaintiff could demand and recover in full the costs of reasonable charges for professional advice, in the same manner as any other professional man could recover for services rendered, except where there is a by-law of the physician's particular college to the contrary. Before the passing of the Act it was admitted that physicians' fees were regarded in the light of an honorarium, and could not be recovered in a court of law. The defendant's council relied on the judgment of Mr. Baron Martin in the case of Gibbon *v.* Budd, reported in the *Law Journal* (new series), 1863. In this case it was laid down "that all that was necessary for them—the medical men—to do was to satisfy the jury that they attended the patients upon the understanding by both parties that the charges for professional aid and advice should be paid." His Honour said he did not think it necessary to call upon the plaintiff's counsel to reply to the evidence that had been adduced by the other side. In the same case which the defendant's counsel had quoted he saw that the late Chief Baron Pollock laid it down, "that a physician practising without distinctly making an arrangement that he should not be paid is entitled to be paid, unless he is restrained by some by-law of the College of Physicians." His Honour regarded the present as an exactly parallel case. Under the circumstances, the authority to call in assistance was necessarily vested in the surgeon, and Dr. Carter was legitimately called in by Mr. Clark at a time when the defendant was very unwell. One could easily understand why nothing was said at the time about the appearance of Dr. Carter; but on subsequent visits the defendant had had an opportunity afforded him of questioning the reason for his presence, and dissenting from the arrangement. There was no evidence that he had adopted this course. Judgment would therefore be for the plaintiff. Of course the decision of the judge is consistent with common sense and common justice. The question of the right to recover on the part of the plaintiff depended upon a contract having been entered into between the parties. Nothing could be more absurd than to suppose that a contract did not exist in the present case. The very fact of the defendant receiving advice from the plaintiff was a contract to all intents and purposes.

The projected repairs of the Royal College of Physicians have been commenced, and the College is enclosed in a framework of scaffolding. It was announced at the meeting of the College, held on the 30th ult., that the repair fund, subscribed by the Fellows of the College, amounts to about £1200, and that the estimated cost of the repairs is about £800.

On Saturday last a statue erected to the memory of Joseph Priestley was unveiled at Birmingham. An address was afterwards delivered by Professor Huxley. The eulogium upon the great and good man was fervent and energetic, but not more so than the subject deserved. Priestley ranked very high as a philosopher and chemist, and maintained independence of opinion and uprightness of conduct, when it was dangerous to do so. He remained in his native town till the commencement of the Revolution in France. He was favourable to the first views of the democrats before these had become offensive or dangerous. He expressed his opinions accordingly. His house was burnt down the following night by an infuriated mob. Priestley afterwards repaired to America, where he died. There is no name associated with us that has higher claims to our admiration and affection than that of Joseph Priestley.

The report of the Peking Hospital for 1873 shows that the year has been one of continued success. The entire number prescribed for was 18,300, although the in-patients have been somewhat fewer than in some previous years. The influence of the Hospital is yearly extending and becoming greater. Its connexion with the higher and official classes has been year by year steadily increasing, and in no year has a larger number of high officials been attended to than in 1873. The report of the cure of remarkable cases has spread far and wide, and the favourable impression thus created has tended to make the Hospital better known among all classes, and removed prejudices arising from ignorance and superstition regarding the work of the doctors and its objects. We shall give from time to time short notes of some cases of special interest, published by Dr. Dudgeon at the end of the report.

Dr. Ferrier has been elected Assistant-Physician to King's College Hospital.

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### THE APPREHENDED SCARCITY OF WATER.

The Local Government Board at Whitehall has issued a circular to all local sanitary authorities throughout the kingdom, in anticipation of the difficulties which may be expected to arise from the want of water, in consequence of the long continuance of dry weather. The circular points out the very serious danger to health which will arise if, for want of a better supply, recourse is had to polluted water; and further impresses upon the local authorities the necessity for taking steps to inform themselves fully of the nature and extent of the existing water-supply in the several parts of their district, together with the sources which may properly be relied on for the purpose of supplying any present or prospective deficiency. It appears that one of the chief duties which the Legislature has imposed upon sanitary authorities, is that of providing their respective districts with a sufficient supply of water, for which purpose they are expected to adopt every

available precaution for the storage of wholesome water; to make careful examination of the means available for economising the existing supply; and to ascertain in what direction assistance can most readily be obtained, in the event of their own local supply giving in. They are, moreover, empowered to communicate with any water company whose limits may be within their district; and if there be no such company they themselves should not only construct and maintain water-works, but also dig wells, and "do any other acts necessary for providing a water supply for their district." Water-carts are to be employed, if necessary, to distribute supplies for domestic use, and also for the convenience of flushing sewers and drains. The circular concludes with an admonition as to the purity of the water distributed: no supply is to be used which is not perfectly safe from pollution; and should the water contain any other impurities, they are to be removed by filtration before it is distributed for drinking purposes. As there is, unfortunately, no doubt that several parts of the kingdom will this year suffer from a water famine, this circular is well timed, and will, we trust, be instrumental in obviating some of the bad results which must of necessity be expected to follow.

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### THE ACCLIMATISATION OF INDIAN RECRUITS FOR THE ARMY IN INDIA.

Some few weeks ago we commented upon an article which appeared in the *Army and Navy Gazette* on the apparent inability of the British soldier of the present day to withstand the climate of India so well as his predecessors. The same journal, in a recent article, from which we shall presently quote, now proceeds to suggest certain important changes in the existing military arrangements for that country, by which the European force necessary to be maintained there might be kept in a state of efficiency with less waste of men, and therefore at considerably less cost in money than at present. The following are the views of our contemporary:—

"That there is in the present system of maintaining the British army in India a vast and unjustifiable waste of material is acknowledged. The two classes in that army who fill the hospitals with sick, the graveyards with dead, the ships with invalids, and cause this waste, are recruits and worn-out men. If the army for India were reconstructed, every regiment located permanently there having its home battalion from which to draw recruits, and to which it could send its time-expired men, this waste would be much reduced, as no man, unless invalided, would leave the country until he had served seven years in it. The number of young soldiers required annually to replace these would be much less than the numerical strength of the five regiments—taking infantry alone—which have now to be sent out in addition to the drafts required to maintain the strength of regiments not in the relief. As a consequence of the number of recruits annually arriving in the country being reduced, those sent could be provided for and disposed of in accordance with the suggestions of sanitary reformers. These suggestions are—that all recruits on arrival in India should be sent to a hill station for their first year, there to be acclimatised without being decimated in the process. The drafts sent yearly to India to fill the vacancies may be, but seldom are, required with their regiments. A regiment 600 strong is as efficient for ordinary garrison duties as one 800 strong. The former has the great advantage of occupying the same barrack accommodation as the latter; and that sickness does increase in proportion as space is limited is undisputed. Should the recruits located for their first year on the hills be required at the head-quarters of their regiments, they would be available with but little delay, as railways have lately greatly reduced the difficulties of transport. In this way only can hill stations be utilised to their full extent. On the other hand, the men who had completed seven years' service in India, would be sent back to the home battalions whence they came, in the majority of cases still efficient soldiers, and eligible for service either with the reserves or with the home battalion. Most of the very few efficient soldiers still left us are men who have been from five to seven years in India. In this way India might make some return for the valuable lives given her, and the army might to some extent profit by the connexion; in this way a soldier would join his regiment in the plains of India after instruction at home, and a year's service for acclimatisation at a hill station, which would, if anything could, make him fit for the remaining six years' service in India, and leave him at the expiration of that time good for home service."

The plan here proposed is one which, we should think, might be tried without much difficulty. A sojourn at the hills on arrival would do much to prepare the soldier for the climate of the plains to which, after one year, he would be drafted; and although we have heard of more than one high Indian medical authority, who from personal observation was of opinion that the sudden change from the plains to the hills was not always beneficial, and in some cases actually dangerous, this objection would not hold good in the arrangement which we are now contemplating. At any rate, this new system must be worth a trial; and we sincerely hope that some pressure will be brought to bear upon the authorities to induce them to consider it.

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### OBSERVATIONS AND EXPERIMENTS ON THE MECHANISM OF STRANGULATED HERNIA.

In the proceedings of the second sitting of the third German "Chirurgencongress," at Berlin, Dr. Hermann Lossen, of Heidelberg, brought forward a paper, of which the following abstract has been given in the *Centralblatt für Chirurgie*:—

Passing over those cases in which a piece of strangulated gut increases in size to such an extent by inflammatory swelling that it cannot be returned by the opening through which it has descended, there are at the present time two principal theories to explain the mechanism of strangulation—the valve-theory of Roser; and that of Scarpa and Busch, which refers it to the nipping off of a piece of intestine. In order to test the truth of these theories, and to discover the most common method of strangulation, the author repeated some of Busch's experiments with the recent intestine of a pig, but substituted for water, which the latter employed, a substance which would solidify in the cold—viz., melted wax. The ring of the hernia was represented by a hole as large as the finger, cut in a thin piece of wood. The strangulated portion of intestine was cooled, and then plunged into wax of a different colour, and the specimen prepared for observation by making longitudinal sections in the greatest diameter. In the same way a number of pieces of intestine were strangulated by injecting them with air, and then dried, the result of which experiments was briefly as follows:—

1. Immediately the wax or air enters the upper end of the knuckle of intestine, the lower end is compressed at the level of the constricting ring, and if the pressure be increased this end is completely closed.

2. If closure have occurred, no force from above, however great, is sufficient to open the lower end again.

3. The nipping off of the intestine, which chiefly involves that part of the gut which is opposite to the mesenteric attachment, is the result, and not the cause of the obstruction.

4. The upper opening is never closed. This depends on the well-known fact that pressure is equal on all points of the surface of an enclosed space. The pressure in the strangulated portion must be the same as that at the constricting neck, and hence as that in the intestine above, and any variation in pressure must tell equally at all points. This may be clearly shown in all artificial strangulations by placing a manometer in the upper opening.

"It is thus," says the author, "an undoubted fact that in the living body the whole column of the obstructed intestinal contents exerts a pressure on the strangulated knuckle of intestine, and that the lateral pressure inside the latter depends on the height, or rather the length of this column, together

with the friction which the intestine opposes to the return of this material backwards."

The height of the column of fæces can only be a matter of great importance when the strangulation is of long standing; but at the same time there can be no doubt that it has its effect, and that it is best relieved by violent stercoraceous vomiting. The obstruction caused by friction is a very different matter. It is from the first in inverse proportion to the diameter of the abdominal opening; and depends also on the viscidity of the intestinal contents and the number of twists, of which a certain number are always formed in the distended intestine above; and lastly, on the competency of the pylorie valve, but still more on that of the ileo-cæcal. It increases also with the peristaltic movements and swelling of the intestinal wall; while as a result of the latter the upper opening may be reduced to the very smallest diameter.

The pressure is at a maximum when it is equal to the whole of the friction which can be exerted by the intestine above, and when this point is reached a return current sets in in the centre of the canal, whilst the fluid keeps moving forward at the sides in obedience to peristaltic action; and in the strangulated portion itself the currents, which are of equal force, become converted one into the other. No further increase of pressure is possible. The author filled a piece of the small intestine of a pig, 440 centimetres long, attached to the mesentery, with a thin broth made of boiled oats and peas, one end being fixed to an upright glass funnel, and the other to a tube connected with a manometer; a pressure of nine to ten centimetres of mercury was necessary in order to drive the broth up into the funnel. If we consider the additional force exerted by the peristaltic movement, the greater viscidity of the intestinal contents, and the fact that the size of the constricting neck is usually smaller in a case of actual strangulation, it is obvious that in the living body the pressure must be much greater than in the experiment. It is greater, indeed, than the pressure in the mesenteric veins, and even equals that in the arteries (ten to twelve centimetres): a fact which explains the venous stasis as well as the absence of arterial blood in the hernia.

The author then proceeds to state the bearing of these facts upon the practical point of taxis. He says that his experiments show how simple compression or kneading of the tumour must be not only unsuccessful, but mischievous; and that it is the high pressure in the interior alone which prevents reduction. If the taxis is to be employed rationally all attempts to alter the condition of the upper opening must be abandoned, the important point being to open the lower end, which is most readily done by a lateral movement of the strangulated portion in the direction of the upper end. If this be once accomplished, the hernia can be returned with a very slight amount of force; but as in practice we have no trustworthy means of finding out its position, lateral movements of the tumour must be made in all directions, upwards, downwards, to the right, and to the left, and if this be not successful, an incision should be made over the neck of the hernia, and the taxis employed again on the same principles.

The author concludes by pointing out that his observations indicate the avoidance of all purgative medicines, and the exhibition of large doses of opium immediately after the occurrence of strangulation.

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### ROYAL COLLEGE OF PHYSICIANS.

At the Ordinary Comitia of the College, held on July 30, the following Members were elected to the Fellowship:—Frederick Robinson, M.D. St. And.; Edward Liveing, M.D. Cantab.; Charles Paget Blake, M.D. Edin.; Thomas Albert Carter, M.D. Edin.; Henry F. A. Goodridge, M.D. Lond.; William Tindal Robertson, M.D. Edin.; Henry Gervis, M.D. Lond.; Henry Heanes Crucknell, M.B. Oxon.; William Withers Moore, M.D. Edin.; John Charles Thorowgood, M.D. Lond.; Eustace Smith, M.B. Lond.; Robert James Lee, M.B. Cantab.; Thomas Henry Green, M.D. Lond.; John Buckly Bradbury, M.D. Cantab. The following by-law was also enacted for the first time:—"Every candidate for the College licence who shall commence his professional study on or after the first day of October, 1874, will be required to produce satisfactory evidence of having completed the course of study in accordance with the by-laws and regulations of the College, and to pass the professional examinations conducted by the Conjoint Examining Board." And at an Extraordinary Comitia, held on August 5, the same by-law was enacted a second time. One step more has thus been taken towards bringing into action a Conjoint Examining Board for England. It is true that the Apothecaries' Society has not yet joined the Conjoint Board; but at the Ordinary Comitia a communication was received from the Society stating that the Apothecaries' Society enabling Bill had received the Royal assent, and that the Society was ready to consider any scheme for the formation of a Conjoint Examining Board that might be submitted to them, and it was resolved that a copy of the existing "scheme" should be transmitted to them. It is further true, or believed to be true, that the Council of the Royal College of Surgeons has declared that it cannot legally join the Conjoint Board unless it appoints the examiners in surgery; and it is said that the Committee of Reference for the Conjoint Scheme have recommended that the College should, like the University of London and the Society of Apothecaries, obtain an "enabling Act." This of course cannot be done till next year, or till Parliament again meets, so that some time must still elapse before a perfect Conjoint Examining Board for England can be formed. But it may be expected that this will not really delay the operation of the scheme, as no examinations under the new system can be held till candidates coming under it have been medical students for two years; and no doubt all the rest of the examining bodies concerned in the scheme will, like the College of Physicians, make rules for bringing under its provisions all students who enter upon their medical studies in October next.

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### THE VALUE OF HIGH POWERS OF THE MICROSCOPE IN THE DIAGNOSIS OF BLOOD-STAINS.

Dr. Joseph G. Richardson having examined the structure, size, and reactions of the blood corpuscles of various animals under very high powers (one-twenty-fifth and one-fiftieth of an inch), has come to the conclusion that we are now able, by the aid of high powers of the microscope, and under favourable circumstances, to positively distinguish stains produced by human blood from those caused by the blood of any of the ordinary domestic animals, and this even after the lapse of five years. He says that the possibility of recognising blood corpuscles when dried *en masse* is closely associated with their possession of a cell-wall, which can be brought clearly into view so as to be measured accurately. He replies to an obvious objection that the difference between the red corpuscles of man and these animals is too minute to render positive discrimination possible, by urging that the corpuscles can be accurately measured, and that confusion need therefore never occur. He next shows that the variation in size of the corpuscles in a particular animal, which is believed to exist, is comparatively slight in fresh blood, and even in dried blood ought not to prove a difficulty in the hands of a careful microscopist. It is a fortunate fact that the red corpuscles of the domestic animals, such as the pig, sheep, ox, goat, horse, etc., are all smaller than those of man. If, therefore, an error were committed in referring a given specimen of dried corpuscles to man or to domestic animals, the evidence obtained would only mislead one into assisting in the acquittal of a

criminal, and not into aiding to convict an innocent person. The method adopted by Dr. Richardson for examining blood-stains is to scrape small particles from the specimen, reduce them to a fine dust upon a slide, cover with thin glass, and then to irrigate the preparation with a ¾ per cent. solution of common salt. A drop of aniline solution is next allowed to come in contact with the blood for half a minute, and thereafter replaced by salt solution.—(*American Journal of the Medical Sciences*, July, 1874.) Whatever opinion English histologists may entertain of Dr. Richardson's description of the structure of red blood-corpuscles, and the effect on them of successive drying and moistening, the practical results which he has obtained seem to deserve the careful consideration both of them and of medical jurists.

### SUPPLY OF WATER TO YORK.

Mr. S. W. North, Medical Officer of Health of the city of York, has presented to the committee of the Urban Sanitary Authority a report on a probable source of contamination of the water-supply of the city. Mr. North states that sooner or later the purity of the source of the water-supply will be endangered by the drainage of the rural districts. The sanitary authorities of the various districts on the banks of the River Ouse are having the necessity of proper drainage for the villages forced upon their attention, and will have to do something in the way of drainage. The difficulty of disposing of sewage in these villages is realised for the first time. The nearest watercourse offers the simplest and the cheapest channel for getting rid of this accumulation. Such is the reasoning already adopted by the representatives of those parishes whose outfall is dangerously near the intake of the York Waterworks. Mr. North suggests as preventive measures that in the first instance it would be desirable to have a careful survey of the river for at least ten miles above the Waterworks, with a view to ascertain what, if any, sewers discharge their contents into the river above or near the Waterworks. The condition of the dykes and watercourses which empty themselves into the river should be carefully examined from their outlet to their source, with special reference to the *possible* discharge of sewage into them from neighbouring villages or other places. It would be well to have the result of this survey set out on the map of the river, indicating not only existing sources of impurity, but those which are likely to arise in the future. This would be valuable for future reference. Mr. North concludes his report by remarking that, so far as any sanitary board can be, they are the guardians of the health of nearly fifty thousand people; and that, in view of this grave responsibility, it is not well to be indifferent to possible consequences because the danger may at present appear small.

### ACNE AND OTHER AFFECTIONS OF THE SKIN, DUE TO BROMIDE OF POTASSIUM.

Dr. Theodor Veiel, of Canustadt, contributes a very interesting paper on the above subject to the *Viertel Jahresehrift für Dermatologie und Syphilis*, 1874, Erstes Heft. After referring to the literature of the eruptions produced by bromide of potassium, and giving the details of several accurately observed cases of his own among a number examined in a large epileptic hospital at Stetten, he gives a summary of all the facts known about the disease at the present time.

In the first place, it is impossible to foretell what dose of bromide will give rise to an acne. Its early or late appearance seems to depend entirely on the constitution of the individual. Some persons get it with small doses, some only with large, while with others even the largest doses fail to produce it. The two sexes seem to be about equally predisposed to it, and the same may be said of constitution. Dr. Veiel has observed his form of acne as frequently in robust and florid as in delicate and anæmic persons. He has not been able to decide the question whether it resembles acne vulgaris in attacking principally young persons, as he has not had the opportunity of examining patients in middle life and old age who were taking bromide; and this point seems to have been passed over by others.

A greasy condition of the skin from abundant secretion of sebum appears to favour its occurrence; and if there are comedones, or acne vulgaris, present before the use of the bromide, they become increased by its action; but Veiel has never seen an ordinary acne disappear in a person taking it, as Dr. T. Fox and Dr. Cholmeley have (*Medical Times and Gazette*, Dec. 11, 1869). The efflorescences make their appearance gradually, and not in an acute form, with fever.

The locality selected is more extensive than in acne vulgaris, and there is a decided preference for parts where hairs abound. Thus, besides the face, chest, and shoulders, it attacks the hairy scalp, the eyebrows, and the hairy parts of the thighs and legs. It may even occur over the whole body. It thus resembles tar and iodine acne in its distribution. The colour is not at all characteristic. All gradations of tint, from rose colour to the deepest bluish and brownish red, have been observed, and a coppery shade is not at all the commonest.

The development of the eruption, and the form of its constituent elements, exactly resembles that of acne vulgaris. Veiel was unable to find a trace of bromine in the contents of some of the pustules in two cases, while it was present in the urine. Although, therefore, he does not deny the possibility of its excretion through the sebaceous follicles, yet he considers that the quantity excreted, since it cannot be detected by chemical examination, is too small to set up inflammation in the follicle, and so give rise to the acne by direct irritation.

The only characteristic feature of acne due to bromide of potassium is its increase and diminution when the dose of the latter is raised or lessened. Bromide acne is distinguished from acne vulgaris by its predilection for the more hairy parts of the body, so that most of the pustules are pierced by a hair. It also occurs without the antecedent existence of comedones. Bromide acne thus resembles tar and iodine acne, but it can be distinguished from them by the chemical examination of the urine, as well as by a characteristic fetor of the breath, which affects all patients with acne due to bromide of potassium. This salt also produces some rather curious affections of the skin apart from acne which are deserving of especial attention from their diagnostic importance. Thus, Veiel has met with several cases of an eruption on the legs exactly resembling erythema nodosum, which persisted as long as the bromide was continued, and quickly vanished on its being left off.

Another and more frequent eruption consists of a diffuse erythema, always absolutely limited to the lower extremities, and accompanied with fever and a great deal of pain. Dr. Haberle, Superintendent of the Epileptic Hospital at Cannstadt, observed the occurrence of foul ulcerations on the legs of two boys who were taking the bromide. Wheal-like elevations, from the size of a shilling to a florin, appeared on an erythematous base, and were exceedingly tender on pressure. They then assumed a warty aspect, and at last ulcerated. The ulcers showed no sign of healing as long as the bromide was continued, but healed spontaneously when it was omitted, leaving a pigmented scar.

The most interesting phenomenon which Dr. Veiel records in connexion with bromide of potassium is the appearance of numerous large warts on the face (cheeks, nose, and eyebrows) and on the legs of a boy of sixteen, soon after he commenced taking it. The warts exactly resembled those which young people get on the backs of their hands. The largest was two centimetres high and a centimetre broad. Veiel believes that a development of warts under similar circumstances has not been before observed.

In conclusion, he points out that there is no direct relation to be traced between the appearance of the skin eruptions and the cessation or less frequent return of the epileptic fits. The beneficial action of the bromide may occur without any eruption whatever.

### NAVAL MEDICAL SERVICE.

The following is a list of naval medical candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School at Netley, and who will receive commissions as Surgeons in the Royal Navy:—

| | No. of Marks. | | No of Marks. |
|---|---|---|---|
| 1. Saunders, E. H. .. | 4297 | 7. Collins, H. B. .. | 3179 |
| 2. Richardson, H. A. W. | 3825 | 8. Bennett, W. E. .. | 3150 |
| 3. Collot, J. A. .. | 3460 | 9. McKinlay, A. .. | 3032 |
| 4. Luther, E. W. .. | 3437 | 10. Hawton, J. W. H. .. | 2910 |
| 5. Bentham, R. .. | 3425 | 11. Mulock, E. R. .. | 2800 |
| 6. Ross, N. C. .. .. | 3394 | | |

### CONVERSAZIONE OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

A very pleasant and successful *conversazione* was given on Wednesday evening, August 5, by the President, Vice-President, and Council of this Society, in honour of the British Pharmaceutical Conference. On this occasion, instead of the South Kensington Museum, which is more frequently selected for the purpose by the Society, their own rooms in Bloomsbury-square were used, the museum, library, etc., being filled with objects of interest, and the staircases decorated with growing plants. A considerable portion of the space on the tables was occupied by specimens of the more recent and improved pharmaceutical preparations from well-known chemists. Electrical, chemical, and other apparatus were also exhibited, and one room was devoted to microscopes. Some excellent pictures, photographs, and works of art in bronze were shown, as well as a very interesting collection of medical and economic plants from the gardens of the Royal Botanical Society. The attendance was very large.

### PUBLIC HEALTH (IRELAND) BILL.

This Bill was read a third time and passed in the House of Lords last Monday, the 3rd inst. A very valuable clause was proposed by the Lord President relative to the vaccination of children under fourteen years of age. We understand that a general meeting of the dispensary medical officers of Ireland, who will be the district medical officers of health under the new Act, will shortly be held in the hall of the King and Queen's College of Physicians, to take counsel as to the best way of carrying out their new duties.

### MANCHESTER MEDICAL SOCIETY.

A number of the members of the Manchester Medical Society have presented a very handsome timepiece (value £30) to Mr. Charles J. Cullingworth, one of their honorary librarians, as a proof of the value they set upon his services, especially in the preparation of a new folio reference catalogue. The Society's library has been largely increased during recent years, and is now one of the most important in this country.

### APOTHECARIES' HALL OF IRELAND.

At the annual meeting of the General Council of the Apothecaries' Hall, Ireland, held in pursuance of the Statute of Incorporation, on August 1, the following gentlemen were elected as office-bearers for the ensuing year:—*Governor:* John Ryan, M.D., L.R.C.S.E. *Deputy-Governor:* Charles Frederick Moore, M.D., F.R.C.S.I. *Court of Examiners and Directors:* Edward Howard Bolland, M.D., M.R.C.S.E.; Thomas Collins, M.R.C.S.E.; Arthur Harvey; Charles Holmes, M.D.; Charles H. Leet, M.D., M.C.; Robert Montgomery, M.R.C.S.E.; Henry P. Nolan, M.D.; Jerome O'Flaherty, L.R.C.S.I.; Edward J. O'Neill, M.D., L.R.C.S.I.; George B. Owens, M.D.; James Shaw, L.R.C.S.I.; John Shea, M.D.; George Wyse, M.D. *Representative on the General Medical Council:* Charles Henry Leet, M.D. *Examiners in Arts:* Edward Wolfenden Collins, M.D. Univ. Dub.; John William Moore, M.D. Univ. Dub., Ex-Scholar of Trinity College, Dublin.

### PARLIAMENTARY.—THE SANITARY LAWS AMENDMENT BILL—MEDICAL OFFICERS ON THE GOLD COAST—REGISTRATION OF BIRTHS AND DEATHS—FEVER AT CLAYTON WEST.

In the House of Lords, on Thursday, July 30,

Lord Walsingham moved the second reading of the Sanitary Laws Amendment Act. He showed the necessity for amending the existing sanitary laws. The Local Government Board were desirous of consolidating these laws, but the Bill now before the House was not so comprehensive, although it had this ultimate object in view. It simplified existing machinery, and defined more clearly the powers of local authorities. Special clauses in the Bill refer to improvements in water-supply, prevention of disease, and the sale of unwholesome food. The boundaries of sanitary districts will be more accurately defined, so that local authorities may have less excuse for neglecting to enforce obedience to the law on the plea of doubt respecting the area of jurisdiction. The Sanitary Commission had recommended that justices of the peace should have the power of ordering wells and pumps to be closed which were injurious to health, and this power was embodied in the Bill. It also enables sanitary authorities to provide hospitals for infectious diseases and for the removal of patients beyond the limits of their districts in cases of emergency. It extended to the metropolis existing powers for the compulsory destruction of infected clothing, and provided that complaints of nuisances should be punctually attended to. It imposed penalties on lodging-house keepers for knowingly harbouring infectious disease, and gave powers of search for unwholesome food, even when not exposed for sale.

After the second reading of this Bill, the Public Health Bill for Ireland passed through Committee, and was read a third time and passed on August 3.

The Slaughter-houses Bill was read a third time on Thursday, July 30.

In the House of Commons,

Mr. Hardy, replying to Colonel Learmonth, said that regimental medical officers serving on the Gold Coast did receive only 3s. a day extra, while the medical staff officers received double pay.

In the House of Lords, on Monday, August 3,

Lord Walsingham, in moving the second reading of the Registration of Births and Deaths Bill, explained that compulsory registration of a very stringent kind is now in force in Scotland, and also in Ireland. The object of this Bill is to make complete the civil registration of births and deaths in England and Wales, according to the recommendations of the Sanitary Commission. Certain clauses in the Bill provide regulations for the burial of still-born infants. This Bill passed through Committee on Tuesday, August 4.

In the House of Commons,

Mr. Sclater-Booth, replying to Mr. Marten, said that the circumstances connected with the outbreak of fever at Clayton West were under investigation, and that in consequence of the extension of the epidemic an inspector had been sent down from the Local Government Board. The sick were being isolated, and steps were being taken to improve the water-supply.

In the House of Lords, on Tuesday, August 4, the Vaccination Act Amendment Bill was considered and agreed to.

In the House of Commons, the Public Health Bill for Ireland, as amended by the House of Lords, was agreed to.

In the House of Commons, on Wednesday, August 5, the Lords' amendments to the Registration of Births and Deaths Bill and the Sanitary Laws Amendment Bill were agreed to.

Parliament has been prorogued this day (Friday) for the usual autumnal recess.

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There were registered in Melbourne and the suburbs during the week ending 30th May last, ninety deaths. Fever in a mild form was reported at Brunswick, but the districts generally were healthy.

# MEDICAL NORWICH AND THE BRITISH MEDICAL ASSOCIATION.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

The meeting of the British Medical Association next week at Norwich suggests a fitting occasion to revive what I have once previously written on the medical history of this fine old city. I will not attempt to reproduce in full that which I did ten years ago in these pages, but will simply cull from that work a few columns, referring readers to the *Medical Times and Gazette* of January 2, 9, and 16 of the year 1864 for further details.

## THE CITY.

Norwich is reputed to have been founded on the ruins of the Venta Icenorum at Caistor. The Castle was built in the reign of Anna in the year 652. In 878, Alfred the Great, after conquering Guthrum, the chief of the Danes, gave to him the kingdom of the East Angles with Norwich Castle for his royal abode. The possession held by the Dane was short; the Saxons again became masters, and continued in power until the time of Edward the Martyr. In the reign of Ethelred the castle and city were invaded by Sweyne, King of Denmark, and both are said to have been destroyed. This event occurred about the year 1004. The present Castle is believed to have been built by Canute, who commenced to reign in 1017; and the architectural style, which is held to be Danish, is offered in support of this view. At the Norman Conquest the Castle was considered by the Conqueror as a post of great importance. Roger Bigod was appointed Constable of the Castle, and the office of Constable remained in the Bigod family for many generations. It is assumed that at the time of Canute—and some historians say at the time even of the Conqueror—an arm of the sea extended to Norwich. We have nothing, however, reliable on this subject, and in known historic time we recognise only what still exists—viz., the two bodies of water known as the Wensum and the Yare. The River Wensum enters the city at the north-west, and leaves it at the south-east point, pursuing a winding course, and including on the left or northern side about one-fourth of the city. In 1294 the city was surrounded by walls of flint, except where the River Wensum formed a natural boundary. The walls were flanked with forty towers, and were pierced by twelve gates. Remnants of the walls still remain.

In its origin Norwich was a mere soldier's town; but in time it became commercial. In the early part of the reign of Elizabeth its trade declined, but in the year 1655 it was peacefully invaded by some 300 Hollanders, who, flying from the Low Countries, after the persecution of the Duke of Alva, settled here and introduced the weaving trade, especially the manufacture of bombazine and crape. The Queen, ever alive to the interests of her subjects, fostered these fugitives, and at the close of her eventful reign they numbered not less than 5000. The trade they established constituted for many a long day the staple of the city.

In the general history of Norwich, it deserves note that two great plagues—now all but extinct plagues—invaded the city. In 1551 it was visited for the fifth and last time by the disease known as the "sweating sickness," or, as it was sometimes called, "The King of England's sickness," because it entered this country in company with the conquering Richmond, afterwards Henry VII. In this outbreak of "sweating sickness" 960 of the citizens died in a few days. In the year 1558 quartan ague in a severe and fatal form appeared, and recurred at different times with such virulence that 667 persons are said to have died of it in the year 1591. The greater proportion of 3076 died of the same malady in the year 1602, as many as 1431 in the year 1625, and 2251 in the year 1665. During these times the water-supply was derived from the marshes. Water-works were established in Norwich in the year 1698, and the streets were lighted with lamps in 1702.

The general outline of the city remains much as it was in the olden time, although the new buildings around the Cathedral—the foundation-stone of which sacred edifice was laid by Herbert of Losinga, then Bishop of Thetford, in 1096—and the spleudid new Cattle Market give it a modern cast. The city is reputed to staud on more ground than any other town in the kingdom of the same population, the houses being much interspersed with gardens. Hence the quaint appellation that has been assigned to it—"the city in the orchard."

## THE NORFOLK AND NORWICH HOSPITAL.

The Hospital was projected 104 years ago—viz., in 1770. In 1759 the then Bishop of Norwich formed the project of building the Hospital, and he requested an illustrious surgeon living near to him—Mr. Benjamin Gooch—to go to London and collect all the information he could get respecting construction. Gooch willingly undertook this mission, and had an interview with Dr. William Hunter, who gave him some useful sanitary advice, founded on the facts of the mortality of the hospital in Brownlow-street to which he (Hunter) was the consultiug physician.

The good Bishop died before his design was carried out; still the design prospered. On August 1, 1770, a meeting was held, at which it was determined to commence the institution. In February, 1771, the first stone was laid; on July 11, 1772, out-patients were admitted; and on November 7 of the same year in-patients were received. The Norwich Hospital was the fifteenth of the county hospitals erected in England, the Winchester Hospital, built in 1736, being the first of the series. In the years 1802-1825 and 1848-49, the Hospital was enlarged, by which changes the original plan of the building—that of the letter H—has been modified. It now contains 150 beds.

### The Hospital Museum.

The Museum of the Hospital is rich in specimens, and will repay a minute study. Practically, it commenced a century ago, for on May 15, 1773, owing to the great number of cases of stone in the bladder treated at the Hospital, an order was passed that the apothecary should "provide a nest of drawers to deposit the stones extracted in this house, that they may be carefully preserved and shown to strangers." The little museum thus formed continued to increase, and in 1843 Mr. John Dalrymple presented his father's museum. Afterwards the late Dr. Crosse presented his museum; and in 1845, on September 10, a new museum-room was formally opened. On this occasion Dr. Crosse delivered an address which was simply perfect in style and in matter.

In the Museum the following objects will specially call for attention:—

Four paintings of eminent practitioners—viz., Gooch, Caius, Rigby, Dalrymple.

A bust of the late Dr. Crosse.

The skull of Sir Thomas Browne, author of the "Religio Medici."

John Dalrymple's cabinet of anatomical and morbid preparations of the eye.

A specimen showing fracture of the odontoid process of the axis. The patient in whom this accident occurred, lived for a whole year after the accident, and died ultimately of cholera. He pursued his usual avocations up to the time of his fatal illness, and without inconvenience.

A rare specimen, showing dislocation forwards of the last dorsal vertebra without fracture.

The skull of a boy in which the breech of a gun was lodged in the frontal sinus. After the accident this boy walked to the Hospital with the piece of iron in his forehead. There were no serious symptoms until an operatiou was performed for removing the foreign body; then hæmorrhage followed, and death as the result of the loss of blood.

A specimen of ligature of the carotid artery in a case in which Mr. Dalrymple performed the operation (unique in his day) of tying the carotid, for aneurism in the orbit by anastomosis.

The skeleton of a dwarf named Pycroft, who was executed for murder. Pycroft's osteological remains show that he was a miserable deformity, and the history of his life is that of a half-witted creature for whom the asylum for the insane would have been the most fitting residence.

A cabinet of old surgical instruments.

A pair of bellows with a wooden collar, intended for artificial respiration.

An early form of uterine speculum.

The uterine membranes in which four children of Dr. Edward Rigby—all born at one birth—were enclosed during their fœtal life.

A rectangular staff, evidently of old construction, but well made, with side groove and all else like the modern rectangular staff, except that the handle is at right angles to the stem, like the handle of a boot-hook. No history is supplied of the invention of this instrument nor of its employment.

A classified collection of one thousand six hundred and forty calculi, each specimen labelled so as to indicate the age of the patient from whom it was removed, the exact weight of the stone, the date of the extraction, and the result of the operation.

A large phosphatic calculus, weighing eight ounces and a half, to which is attached the history that Liston failed to extract it from the bladder. The patient was a youth of 18 years of age, and on May 16th, 1836, he was put on the table to be operated upon by Mr. Dalrymple, Liston being present. Mr. Dalrymple cut into the bladder, and reached but could not extract the stone. Liston then took the forceps, but failed also to extract. The patient was returned to bed with the stone still in the bladder. Afterwards the stone was broken into fragments and removed in pieces: the operation terminated fatally.

A calculus, weighing six ounces, which was extracted spontaneously from the bladder of a female patient.

One of the most perfect known specimens of a mulberry calculus.

A specimen of a calculus, once in the possession of Benjamin Gooch, which weighs fifteen ounces—the largest calculus, probably, that was ever removed from the human subject successfully. The patient in this instance was a man, forty-eight years of age. He was a robust man, and intemperate. He had had symptoms of stone in the bladder from a child. The operation was performed on June 8, 1746, by Mr. Harmer, Gooch being present. The operation known as the Marian—a median operation, named after Marianus Sanctus, who practised it, but which was actually invented by the master of Marianus, Johannes de Romanis—was that which Mr. Harmer performed. After cutting into the bladder, with a wound of the ordinary size, he found it impossible either to extract the stone or to break it; Gooch, therefore, at his desire, gradually enlarged the wound with the knife while he himself sustained a gentle traction. By this means the stone was extracted, and the man recovered without a dangerous symptom. The wound, however, never healed, and the patient, when he had left the hospital, confided his after-treatment to a faithful dog, who every day licked the wound, keeping it "tolerably clean and easy." The patient lived until April, 1751 (nearly five years after the operation), and until a few days before his death walked abroad. The calculus is about $4\frac{1}{2}$ inches long, and $3\frac{1}{2}$ in its transverse diameter. It will be found divided into two segments, which can easily be put together. Mr. Sutton, of Norwich, one of the most able of the English school of modern chemists, has determined the composition of the calculus to be as follows. It consists of three distinct layers.

| Nucleus. | Per cent. |
|---|---|
| Oxalate of lime | 31·08 |
| Uric acid | 65·66 |
| Silica, animal matter, and loss | 3·26 |
| | 100·00 |

| Inner Ring. | |
|---|---|
| Uric acid | 81·52 |
| Phosphate of magnesia and ammonia | 2·34 |
| Animal matter | 13·90 |
| Insoluble matter, silica, and loss | 2·24 |
| | 100·00 |

| Outer Ring. | |
|---|---|
| Phosphate of magnesia and ammonia | 57·20 |
| Carbonate of lime | 16·67 |
| Uric acid | ·82 |
| Animal matter | 24·37 |
| Insoluble matter, silica, and loss | ·94 |
| | 100·00 |

The museum is indebted to the late Dr. Crosse for this unique specimen of calculus. The specimen, as I have said, belonged originally to Gooch, but for a time it was lost. It was regained by Crosse, who, with his usual liberality, presented it to the Hospital.

A paper containing analyses of 663 calculi, made by the late Dr. Yelloly, of Norwich, will be found in the museum; and a table of the analyses, with many other useful tables relating to calculous diseases, constructed by Mr. Williams, assistant-surgeon to the Hospital, will be found in the *Medical Times and Gazette* of January 9, 1874.

There are, I need hardly say, many other objects of interest in the museum. The student will find, for instance, numerous valuable pathological specimens illustrative of morbid and specially of malignant growths; but I must limit this description, and am therefore obliged to be content with the short list of details rendered above. I would only add, as connected with the relic of Sir Thomas Browne, that Mr. Firth has a rubbing of the inscription on the coffin of the author of the "Religio Medici" which should be seen.

*Practice at the Hospital.*

Friday is the day for operations at the Hospital. The surgeons are Messrs. Firth, Cadge, and Crosse (son of the late most distinguished surgeon of that name, to whom reference has several times been made); Mr. Nichols is consulting-surgeon, and Messrs. Williams and Beverly are assistant-surgeons. The reputation which the Hospital has acquired as a surgical school was never more brilliantly sustained than now. The operation of lithotomy is still the great operation there, and the median operation is often performed. Mr. Cadge introduces a new point of practice in lithotomy, in that he withdraws the staff as soon as he has cut into the bladder, instead of using it as a guide for the finger. The medical practice, though less brilliant, is rich in useful work. Dr. Bateman has studied diseases of the nervous system—aphasia specially—with equal assiduity and success; and Dr. Eade, seizing his unusual opportunities for observation on the origin and progress of phthisis pulmonalis, has advanced, with singular acuteness and force, the hypothesis that this disease may be primarily due to pulmonary vascular paralysis.

*Prevailing Diseases in the Hospital.*

The prevailing diseases in the Hospital (exclusive of wounds and injuries) are ulcers, diseases of joints, phthisis pulmonalis, rheumatism, stone in the bladder, struma, and tuberculosis. These seven diseases furnish in the gross more than 28 per cent. of all the diseases treated at the Hospital, and Mr. Williams was so good as to supply me, in 1864, with the fact that, in the course of the two years 1860-62, as many as 154 cases of cancer were treated in the institution. Of these 55 were cases of epithelial cancer, 40 of encephaloid, 53 of scirrhus, and 6 of colloid; 75 of the subjects affected were males, and 79 females. In 8 cases the disease was clearly hereditary, in 100 the hereditary tendency was not traceable, and in 46 the evidence of hereditary proclivity was undecided. The relative proportion of cases of cancer is greater than I have ever seen in any table of diseases common to a given locality. The connexion of the prevalence of this disease with the prevalence of stone in the bladder is, in an etiological point of view, of great moment; and, indeed, on the subject of the whole class of diseases localised here, there is room for careful study. There is yet another series of facts bearing on the more purely medical diseases, which in a striking degree connects the etiology of this district. Dr. Eade, one of the physicians to the Hospital and to the Dispensary, informed me that the oxalic diathesis prevails amongst the patients under his care. What may be called acute oxaluria is a common malady; it is attended with general debility, flatulent and slow digestion, irregular action of the heart, pain in the loins, uneasiness or weight at the vertex of the head, depression of spirits, loss of sexual power, and occasionally of muscular power in the lower limbs.

In brief, there is in and around Norwich a field of disease

which suggests the existence of a social cause, or of allied social causes that act in some common manner, producing a series of diseases linked together as in a chain. The chain at present is knotted and ravelled, but with patience it will be opened out.

Much attention has been paid to the cause of the frequency of calculus. Dr. Yelloly was most particular in his researches on this subject. He showed from the practice of Mr. Martineau that operation for calculus was required in *one* of the better class of patients to *eleven* of the poor. He also showed that the tendency to calculus was nearly double in the city to what it was in the county at large, and that the proportion of males affected was as twenty to one female. (Up to the year 1864 the proportion was—males 869, females 41.) There are thus three disposing influences to calculus in Norwich—to wit: poverty, city life, and masculine sex. In relation to direct causes there have been assigned hereditary tendency, farinaceous diet, and character of water supplied for drinking. The first of these direct causes is hardly tenable, because hereditary tendency should pass from the parent to the female as readily as to the male child. The second cause is not tenable, because the women live on the same farinaceous diet as the men. The third cause also is not tenable, because the women have the same water to drink as the men have, and because the analyses made by Mr. Sutton show that there is nothing special in the water to produce calculus. There is, therefore, some other explanation of the fact; and one of the best explanations I have heard is by Mr. Williams—viz., that exposure to cold and the production of rheumatic diseases from the cold (not acute rheumatism, but chronic and diathetical) is the main cause. To this influence it may possibly be well to add some further bad effect arising from the excessive use of alcoholic drinks amongst the male population.

The relapses of calculus in Norwich are at the rate of 44 in 920 persons.

## OTHER INSTITUTIONS, MEDICAL AND GENERAL.

*The Norwich Dispensary.*

The Dispensary in St. John's Madder Market was founded in 1804 at Elm-hill. The physicians attend four days in the week, and the number of patients amounts to two thousand annually.

*The Jenny Lind Infirmary.*

This Infirmary for sick children is a small and comfortable house, at which boys between the ages of two and nine years, and girls between the ages of two and eleven years, suffering from any disease not contagious, are admitted for treatment. The institution was founded in 1853, and was named after Madame Jenny Lind-Goldschmidt, who contributed largely to its foundation.

*The Lying-in Charity.*

This Charity is in the same building as the Jenny Lind Infirmary, but the two charities are distinct. Nine midwives are attached to this institution, and act under the direction of the medical staff. A fee of four shillings is allowed the midwife for each case she attends.

*Norfolk and Norwich Infirmary for Diseases of the Eye.*

The Eye Infirmary was established in the year 1832, and from forty to fifty operations are performed in it annually. There is one useful and novel arrangement in this place, in the way of an airing ground so planned that the patients who are unable to see can nevertheless walk out alone when the weather is suitable. The exercise ground which adjoins the institution is marked off into walks by firm smooth railings, high enough to be felt comfortably by the hand and to direct the way in which walking may be safe and free from obstruction. The sufferers who feel the benefit of this improvement in hospital management have to thank Mr. Firth, of Norwich, for the boon.

*Higham Hall Private Asylum for the Insane.*

This Asylum is situated a little distance from the city, and was capable of receiving sixty persons in 1864. The Hall was, I believe, transformed into an asylum by Mr. Nichols, the visiting surgeon and proprietor. The sanitary and other arrangements have been planned with unusual care.

*The Bethel Asylum.*

The Bethel Asylum, founded by Mrs. Mary Chapman in the year 1713, receives about seventy inmates.

*The Borough Lunatic Asylum.*

This asylum was originally a lazar house, lying at a little distance from the city. It has recently, I believe, undergone much improvement.

*The Boys' Home.*

In St. Faith's-lane there was at the time of my visit to Norwich, in 1864, a very useful institution, which I trust still exists, and which is called the Boys' Home. It was organised in 1846, and although a parochial undertaking, it was intended to represent a model principle, which indeed it did represent thoroughly. The house received, in the course of the year, some sixty boys from the Workhouse, and gave them a residence. The boys are divided into two classes—the school class and the home. Boys nine years old are placed in the school class, and are kept there until they are old enough to work. When they are so advanced that they can go out, they are allowed to go to work at different occupations in the city—some as clerks, some a handicrafts, others as labourers or messengers. While thus working they still find for a long time a residence at the Homes and are thus kept during a critical period of their lives under good and gentle discipline. The wages earned by the boys go towards their maintenance, but each boy is allowed threepence a week for pocket-money. The working boys averaged sixteen in the year in 1864, and their earnings brought in a sum of £969 per annum.

The magnificent old *Castle*, the *Cathedral*, the *Guildhall*, the *St. Andrew's Hall*, the *School* in which Nelson learned to teach that "England expects every man to do his duty," the *Literary Institute* (in which there is a *Medical Library*), the *Masonic Hall*, the *City Gaol*, the *Workhouse*, the *Doughty Hospital*, and the *Infirmary for the Indigent Blind*. These are other places of interest in Norwich, to which the visitor will find it worth his while to wend his way.

## MEDICAL CELEBRITIES OF NORWICH.

No provincial city or town in England of the same size has produced so many medical men of distinction as the city of Norwich. In the following list, taken in alphabetical order, the most prominent of these celebrities are, in the briefest manner, presented.

Browne, Sir Thomas, M.D. Oxon.

The author of the "Religio Medici" resided and practised as a physician in Norwich from the year 1636 until his death in 1682. In 1641 he married a widow lady named Mrs. Mileham, for which desperate act he was subjected to much raillery, because a short time previous to the event he had written "that we ought to multiply our species like trees, who by themselves throw out young suckers," and "that the whole world was made for man, but only the twelfth part of a man for a woman." Sir Thomas was knighted by Charles II. in 1671. He was the author of "Pseudo Doxiæ Epidemiæ, or a Treatise on Vulgar Errors"; of "Hydriotaphia or Urn Burial"; of the "Garden of Cyrus"; and of the famous "Religio Medici." He died on October 19, 1682, and was buried in the Church of St. Peter, Mancroft.

Browne, Edward, M.D., F.R.S.

Dr. Edward Browne was the son of Sir Thomas, and was born at Norwich, probably in the close of the year 1642. He was educated at the Norwich Free School, passed to Cambridge, and completed at Oxford, where he graduated in medicine in 1667. I cannot discover whether he practised in Norwich; if he did, it was for a very short time. He was given to foreign travel, and in 1673 published an account of his travels in Hungary, Austria, and Macedonia. He ultimately settled in London, succeeded Sir John Micklewaite as physician to Bartholomew's, became a Fellow of the Royal Society, and Physician to Charles II. He was also called in consultation to William III. during the last illness of that monarch. In 1705 he was elected President of the Royal College of Physicians. He was the friend of Dryden, and he wrote the life of Themistocles for the English translation of Plutarch. He also wrote a life of Sartorius.

Caius, John, M.D.

John Kaye, or Caius, founder of Caius College, Cambridge, and well known as the Caius of the "Merry Wives of Windsor," was born in Norwich in 1510, and was educated at the Free School. He joined Gonville College, Cambridge, became a Fellow of the College, graduated in medicine later in life, and coming to London to practise, was made Physician to Edward VI. After the death of the King he was made Physician to Queen Mary, and this notwithstanding that he

differed from her Majesty both in politics and religion. He continued to hold the office of Physician to the Queen in the reign of Elizabeth. Becoming wealthy as well as famous, he refounded Gonville College, and endowed it so liberally that it was renamed after him. He wrote "On the English Breed of Dogs," "On Rare Plants and Animals," "On the Hot Springs of England," and "De Medendi Methodo." He is best known by his work, "A Boke or Counseill against the Sweat," 1552, from which the learned Hecker borrowed freely. He died at Cambridge, in July, 1573.

### Crosse, John Greene, M.D., F.R.S.

Dr. Crosse, the most eminent representative of medicine and science, and one of the most estimable of men Norwich can claim as a citizen, was born at Finsborough, in Suffolk, on September 6, 1790. He was educated at Stowmarket, and was intended for the law, but preferred physic and took to it. He entered London to learn in 1811, and became the pupil of Sir Charles Bell. In 1813 he was dresser to Sir Everard Home. Leaving London for a time, he studied in Dublin, and was Demonstrator of Anatomy under Macartney. Thence he proceeded to Paris after a short stay in England, and, returning to London, published "Sketches of the Medical Schools of Paris." In 1823 he was elected Assistant-Surgeon to the Norwich Hospital, but the election cost him a serious illness, to remove the effects of which he made a tour in Holland. Recruited by this journey, he commenced practice in earnest in Norwich, and soon rose to the highest possible eminence. In 1826 he was elected full surgeon to the Hospital, and in 1829 he began to give clinical lectures there. Eloquent as a lecturer, clear, concise, and practical as a writer, and original in thought, Dr. Crosse's fame extended far away from the city he had adopted for his home. In 1836 he was elected Fellow of the Royal Society, and the degree of Doctor of Medicine was conferred on him by two universities, St. Andrews and Heidelberg. He wrote "A History of the Variolous Epidemic of Norwich," "Memoirs of the Life of the late Dr. Rigby," "A Memoir of the Life of Philip Martineau," and an essay for which a Jacksonian Medal was awarded, on "The Formation, Constituents, and Extraction of the Urinary Calculus." In addition to his other honours, Dr. Crosse was a Fellow of the Royal College of Surgeons, and honorary fellow of various learned societies at home and abroad. He presided over the meeting of the Provincial Medical and Surgical Association held at Norwich in 1846. He died, at the age of sixty, on Saturday, June 8, and was buried, amidst a general sorrow, in the cloisters of the old Cathedral on Friday, June 14, in the year 1850.

One of the present distinguished practitioners of Norwich, Dr. Copeman, who next week will be the honoured President of the British Medical Association, has preserved a diary by Dr. Crosse, in which there are homely passages of wise counsel such as De Foe or Benjamin Franklin would have been proud to write. A complete life of Crosse, with the text of all his works, would be an interesting and useful book.

### Dalrymple, William.

Mr. William Dalrymple, the father of the learned oculist and anatomist, John Dalrymple, was born in Norwich in 1772. He studied medicine under Cline and Astley Cooper, and commenced practice in Norwich in 1793. In 1812 he was elected assistant-surgeon, and in 1814 full surgeon to the Hospital, and held office until 1839. In 1844 he resigned practice, and died in London on December 5, 1848.

### Donne, William.

Mr. Donne was one of the earliest surgeons to the Norfolk and Norwich Hospital, and became very eminent as a lithotomist. He was, I believe, the largest contributor in his time to the cabinet of urinary calculi that will be found in the museum. He died in the year 1805.

### Gooch, Benjamin.

Gooch, who fairly ranks with Pott and Hey as one of the great provincial English surgeons of the last century, lived at Shottisham, near to Norwich. He was practically the founder of the Hospital, to which, after a rather unseemly opposition, he was elected first consulting surgeon. He published two volumes of "Cases and Practical Remarks on Surgery." He wrote so close to nature that his works even now read as of our own time. He preceded Hunter in much that Hunter taught on the healing of wounds, and he combined with a simple, childlike, narrative style, a fine erudition. A few pages he has put together on the "History of Surgical Art" form the compactest essay of its kind with which I am conversant. Atkinson, of York, could not have surpassed it. Gooch died at Shottisham in 1873.

### Lubbock, Richard, M.D.

Dr. Richard Lubbock, who was born in Norwich in 1759, and was educated at the Free School, commenced his medical life under Dr. Rigby, and afterwards graduated in the University of Edinburgh. He was one of the first pupils in the Hospital, and was physician to it from 1790 to 1808. He was considered an accomplished scholar, and he published "A Case of Catalepsy." He died in the year 1808.

### Martineau, Philip Meadows.

Martineau, whose name, like that of Crosse, is everywhere known in connexion with Norwich, was born there on November 9, 1752. His father, David Martineau, was a surgeon. He studied in Edinburgh under Cullen in 1773; in 1775 he passed the year in London; and after a visit to Geneva returned to Norwich, and joined Mr. Donne in practice. Martineau became assistant-surgeon to the Hospital in 1777, and in 1793 full surgeon. He attained the highest reputation as a lithotomist, and operated on forty cases without having one death. He published in the eleventh volume of the *Medico-Chirurgical Transactions* the results of eighty-four operations for stone by the lateral method, from which there were only two deaths. He also published "An Extraordinary Case of Dropsy of the Ovarium," which account was submitted to the Royal Society by John Hunter, in 1784. Martineau built a mansion at Bracondale, near Norwich, and continued as surgeon to the Hospital for fifty years. He held a distinguished social as well as professional position, and lent a hand to many public undertakings. In 1784 he founded the public library of the city, and forty years later—viz., in 1824—he took an active part in inaugurating the now famous Norwich Musical Festival. He also was a leading spirit in the celebration of the repeal of the Test and Corporation Acts, to which, as a Unitarian, he was ever strongly opposed. He died on the evening of New Year's Day, in 1829, and was buried in Thorpe Church, hard by Norwich.

### Murray, John, M.D.

Dr. John Murray, founder of the Scots Society for the assistance of such of the Scots in Norwich who could claim no parochial relief, settled as a physician in the city in 1768, and remained until his death on September 29, 1792. Murray was noted as a staunch advocate of those slave-abolitionists whom Wilberforce afterwards led to victory.

### Rigby, Edward, M.D.

Dr. Rigby, a celebrated physician, was born at Chowbent, on December 9, 1747. He studied under the illustrious Priestley, at Warrington, until 1762, and afterwards was apprenticed to Martineau, of Norwich. He studied in London under the brothers Hunter, and joined the Corporation of Surgeons on May 4, 1769. Settling in Norwich, he married, and soon attained a large practice, and in 1789, being rich and independent, he went to France, witnessed the Revolution, and saw the head of the Governor of the Bastile carried on a pole. On his return home he took an active part in social matters, and introduced amongst the weavers of Lancashire the "flying shuttle." In 1803 he married for the second time, and had twelve children by this union. Four of these children—three boys and one girl—were born at one birth: the membranes in which they were enclosed are preserved at the museum of the Hospital. The late Dr. Rigby, of London, was one of the children of this marriage. Dr. Rigby, who was a Fellow of the Medical Society of London and of the Linnæan Society, contributed many valuable papers to science, his essay "On the Uterine Hæmorrhage which precedes the Birth of the Fœtus" being his ablest professional work. He was sheriff in 1803, mayor of Norwich in 1805, and was one of the founders and treasurer of the Norfolk Benevolent Society for the Relief of the Widows and Orphans of Medical Men. He died on October 27, 1821. On the life and career of Rigby, Dr. Crosse pronounced, on December 16, 1821, an eulogium singularly interesting and generous.

### Sayers, Frank, M.D.

Dr. Frank Sayers, another noted Norwich physician, was born in London in March, 1793, and died in Norwich, after many years' practice there, on August 16, 1817. He was the school-fellow of Lord Nelson, and was ranked, in his time, as the "first gentleman" of Norwich.

Smith, Sir James Edward, M.D., F.R.S.

Sir James Smith, the eminent botanist, was born in Norwich on December 2, 1759. He became President of the Linnæan Society, one of the intimates of Sir Humphry Davy, and author of the "English Flora." He ranks amongst the first of botanists. He died in his native city on March 17, 1828.

Wrench, Sir Benjamin.

Sir Benjamin Wrench practised as a physician in Norwich for sixty years—from 1687 to 1747. He was of the school of Mead, and lived with the dignity of a noble. He was wont to drive from his country house into the city in a chariot and four, with outriders and great parade; and if he did not cure more sick by this means, a great many more came to him to be cured. There is a good painting of him still retained. He died in 1747.

Yelloly, Dr. John, F.R.S.

Dr. Yelloly practised in Norwich from 1821 to 1833. He is known for his admirable contribution to the *Philosophical Transactions*, "On the Tendency to Calculous Diseases, and on the Concretions to which the Disease gives rise." He was evidently an acute practical physician and an excellent chemist. The particulars of his life are but little known, but Mr. Curling has some facts which may perhaps one day be published, and which will fill up a gap that is wanting in the history of the medical celebrities of our eastern city.

## THE LAST NORWICH MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association, known originally as the Provincial Medical and Surgical Association, held a meeting at Norwich on August 19 and 20, 1846. At this meeting Dr. Crosse occupied the chair, and delivered an address, some passages of which are so good that I must quote them. He urged the necessity of what has since been carried out—"*A general registration of all legally qualified practitioners, with an annual publication of the registry.*" He insisted on "*uniformity of education, and community of privilege in each grade throughout the empire.*" He advised his brethren to disregard the whims and prejudices of the public, and to direct their minds to these objects: "*The full attainment of the sound medical knowledge of the day; the diffusion of what knowledge we possess; the advancement of medicine as a science.*" On all these a man may be "useful," on the last only can he be "renowned." Speaking of new and brilliant discoveries in medicine, he compared them to "*the pinnacle or spire of a fine edifice, attracting much attention; whilst the basement and interior correspond to that well-diffused, sound, practical knowledge which is of everyday application.*" And, speaking of the treatment of disease, he taught that "*in our difficult calling, whenever art does violence to nature, the apparent good is as an artificial fountain, that can be kept up only for a time.*"

At this meeting of the Association, the members congregated in St. Andrew's Hall, and several valuable papers were read. A committee was appointed to inquire into the best mode of carrying on the publications of the Association; and Mr. Daniell, of Newport Pagnell, reported on his scheme, which afterwards was attempted, for establishing a general annuity fund. A communication from Mr. Firth created much interest. It had reference to the discovery of arsenic in the soil of a churchyard at Happisburgh. He found arsenic in soil which had never been opened for the reception of the dead.

At the concluding meeting Dr. Crosse detailed some curious medical historical facts respecting Norwich. He showed that at one time itinerant quacks were temporarily licensed by the Corporation of the city to set up their stalls or stages for "*the practice of chirurgery and physic with music.*" Apollo in his two characters at one and the same time!

A retrospective address from Dr. Rankin brought the business to an end, and the Association adjourned, to meet the next year at Derby.

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I close this chapter with the remembrance of many pleasant associations connected with Norwich still fresh on my mind, for which I can never be too grateful. If therefore the perusal of the few facts I have here strung together should beguile away a half-hour of some of those old and esteemed friends who next week will enjoy a holiday specially precious, my trifle of industry will be well repaid.

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A COTTAGE hospital is about to be established at Wells, Somerset, at a cost of £300.

# NICHOLSON ON SNAKE-BITE AND DOG-BITE,

AND ON THE DEVELOPMENT OF

## THE VENOMOUS ORGANS IN SNAKES.

We some time ago noticed Mr. Nicholson's work on Indian snakes, which, we see, has deservedly reached a second edition.(a) When we say that it contains an account of the anatomy and physiology of serpents, of the principles of classification, and of the mode of determining the diagnosis of an unknown snake, with a descriptive catalogue of the species and varieties of Indian snakes, illustrated by twenty useful coloured plates, the work will commend itself to the student as a good working guide-book in this branch of natural history. What we desire to quote for our readers' benefit are the author's observations on some points involving the higher speculative doctrines of biology.

We need hardly say that the harmless snakes, as a rule, have two semicircular rows of teeth in the upper jaw; whilst in the venomous snakes the outer row is absent, except the one grooved poison-fang on each side in front. If now the question be asked, Whence comes the venom, and the peculiar fang?—"To the disciple of Darwin," says Mr. Nicholson, "the modifications we are about to study have been developed by natural selection. Several harmless snakes have long simple fangs for the purpose of holding tough-skinned prey; others, including nearly all the tree-snakes, have grooved fangs, and, as far as we know, without any modification of the saliva. With these facts before us, and with the knowledge that in some animals the saliva becomes poisonous under certain circumstances, there can be little difficulty in accounting for the development of the most perfect poison apparatus." Roughly speaking, there are four stages in the development of poison apparatus:—

1. The presence of grooved fangs in snakes which are unprovided with poisonous saliva, or whose venomous quality is so slight that its effect has not been observed (nearly all the tree snakes and the fresh-water snakes).

2. The possession of a salivary gland secreting poison, and of a grooved tooth in front of the other maxillary teeth (*Hydrophidæ*).

3. The maxillary is shortened; it contains one tooth with a perfect canal, and often one or two simple teeth behind the fang (Indian *Elapidæ*). There is a degree of mobility sufficient to raise the fang from a *semi-erect* to a *nearly erect* position, the angle moved through being less than 45°.

4. The maxilla is higher than it is long, and contains only one tooth—a fang several times its own length. "It is very mobile, usually lies supine, but is capable of being erected at an angle of 90°." (*Viperinæ*).

These stages of development (says Mr. Nicholson) are far from being abrupt. When the fauna of Australia is taken into consideration, we find steps between them, both as regards development of maxillary and fangs, and degree of venomous quality.

The most perfect form of poison apparatus is found in the *Daboia*, or Russell's viper; a long fang usually lying supine along the jaw, but capable of full erection. "Imagine a hammer-head, with the claw downwards (representing the fang), and hinged at its junction with the handle (the ectopterygoid bone). Now, if the top of the hammer-head be fixed by a ligament to a fulcrum, protrusion or retraction of the handle will cause the claw to be either erected or depressed." The muscles by which the erection is accomplished are the same as those which move the ectopterygoid and maxillary bones in harmless snakes when swallowing their prey. We doubt, by-the-bye, whether it is orthodox Darwinism to speak of an organ as if developed "for a purpose." We are weak and old-fashioned enough to speak of a "purpose"; but the Darwinian doctrine would be that the fangs, once developed, enable the snake bearing them to compete in the struggle for life with fangless snakes, and so that the offspring of fanged snakes are more numerous.

Thus it would appear that there is no gap between the venomous and non-venomous snakes; but Mr. Nicholson

(a) "Indian Snakes: An Elementary Treatise on Ophiology, with a Descriptive Catalogue of the Snakes found in India and the adjoining Countries." By Edward Nicholson, Surgeon, Army Department. Second edition. Madras: Higginbotham and Co., 1874. Pp. 188.

points out another relationship which is rather startling. "The action of snake poison appears to be not dissimilar in kind from that of mad-dog poison—both are toxic principles residing in a natural salivary secretion; and the analogy will be more apparent if it be remembered that hydrophobia has been produced in man by the bite of a dog not apparently affected with rabies." Hence arises the portentous question—Supposing that a dog, though not affected by rabies, may secrete a hydrophobic saliva, does it follow that this dog must have been bitten by another dog, rabid or similarly affected, or may this state arise spontaneously? And if it arise spontaneously, might not the property become hereditary? and may there not be a breed of poisonous dogs, as there is of poisonous snakes, unless man for his own safety should interpose?

This is a speculative matter, but there is a more practical one behind. During the twelve years 1860-71 there were only *four* deaths from snake-bite in the British army in India, *but thirty-eight from dog-bite*. The annual rate of mortality from snake-bite was at the rate of 5·5 per million in Europeans, and 82 per million amongst the natives. But little is thought of the 53 deaths per million amongst Europeans from dog-bite. Every town and village in India is infested with hordes of useless and dangerous dogs, which might be exterminated, but are not; whilst a hopeless crusade is directed against the snakes. Mr. Nicholson believes the attempt to extirpate snakes is futile, and the money spent on it thrown away, except so far as most of it finds its way back in the shape of duty on alcoholic liquor.

## FROM ABROAD.

### Hydrophobia with Two Years and a Half Incubation.

Dr. Féreol, at the meeting of the Académie de Médecine of the 21st ult., read a very long memoir on a case of hydrophobia occurring in an individual bitten two years and a half before by a mad dog. He has since published it at length in the *Union Médicale*, but we may content ourselves with noting the chief points. The patient was a M. Durieux, a *pharmacien* by occupation, and forty-eight years of age. On June 18 he was admitted into the Maison de Santé with symptoms of commencing hydrophobia, which speedily became quite confirmed. Death occurred on the third day, and beyond some cerebral and spinal meningeal congestion nothing special was found at the autopsy, which was performed with the greatest care. The patient stated that he had been bitten in the hand two years and a half ago by a mad dog, and subsequent inquiries have confirmed his statement.

M. Féreol, convinced that his patient died of true hydrophobia, reviews at great length the various affections with which this may be confounded. Treating of "nervous hydrophobia," he refers to a remarkable case which fell under M. Demarquay's notice. A student at the Hôtel-Dieu having been greatly affected by the suffering which he had witnessed in a patient dying of hydrophobia, had the misfortune as he was leaving the hospital to be himself bitten by a dog. He returned in a state of desperate alarm, and had the wound thoroughly cauterised, declaring that within six weeks he should return to die in the state of horrible suffering which he had just witnessed; and accordingly, at the period indicated he did return with all the symptoms of hydrophobia developed. As he was still alive at the end of the forty-eight hours, when the patient whom he had seen had expired, M. Demarquay joked him, declaring that, as he had passed that period, he had not the disease, and had nothing to fear. These words inspired the youth with hope, his symptoms abated, and he recovered. That the present patient was suffering in some analogous manner is rendered highly probable by a statement made by Baron Larrey at the next meeting of the Academy. During the siege of Paris, he observed, this M. Durieux (who, besides being a *pharmacien*, had a medical diploma) became well known to him as an applicant for employment in the ambulances. From the first he remarked his zeal and ardour, as well as his excited state and language. He seemed to seek to brave all perils in order to distinguish himself; and his excessive anxiety to obtain the Cross, and his tumultuous joy on succeeding, made a great impression on M. Larrey. "I lost sight of him afterwards," he observes, "always remembering him, however, as one of the most restless, the most agitated, and the most excitable beings with whom I had ever come into contact. Did he not then present a moral predisposition to the manifestation of the neurosis which ended in a fatal hydrophobia? For my part, I should be disposed to regard his case, not as an example of rabies with an incubation of two years and a half, but as one of cerebral hydrophobia, or symptomatic of acute delirium provoked or aggravated by the coincidence of the bite of a dog presumed to be mad."

While on the subject of hydrophobia, we may advert to a case related recently to the Paris Hospital Medical Society by Dr. Bucquoy, Physician to the Cochin Hospital, in which intravenous injection of chloral was tried. He approves of the condemnation which has been so generally expressed of Prof. Oré's proposal to substitute this practice for the administration of chloroform in surgical operations, but he believes that few will accuse him of temerity in resorting to this mode of treating a disease so invariably fatal as hydrophobia. And although the remedy has proved as useless as all others, the case is worth notice as confirming Prof. Oré's statement that large quantities of chloral may be injected with impunity. On the 31st of May, a robust and healthy man, who had been bitten in the hand six weeks before, was brought to the hospital. The symptoms, which had commenced two days before, were fully developed, and the pulse was 120. A solution of chloral (1 to 5) was thrown into the median-cephalic and radial veins by means of an Anel's syringe—this, which held five grammes, being repleuished thirteen times; so that thirteen grammes of chloral were injected in the space of an hour and a half. At about the tenth syringe the stage of excitement appeared, just as under the use of chloroform; and after the thirteenth, the patient fell into a deep sleep. He slept for about two hours; and some time after he awoke, and while still somewhat under the influence of the chloral, he was able to drink small quantities of water twice. He passed the night calmly, and was able every now and then to drink, especially when a caoutchouc tube was employed. On the 1st of June he was very calm and contented, but on trying to drink the same frightful spasms seized him as at first. These afterwards continuing without exciting cause, and being accompanied by constant restlessness, chloral was again injected by the saphena vein, twenty grammes being employed before sleep was induced. This was very sound; but, after it had lasted two hours, the patient was seized with a tetanic spasm of the muscles of the thorax, and soon afterwards died. Nothing remarkable was observed at the autopsy; but it was ascertained that in no point of the venous system, which was very carefully examined, was there trace of inflammation, nor were there any coagula in any of the veins into which the chloral had been injected.

It is in relation to the intravenous injections that the case is interesting, large quantities of chloral having been thrown in with innocuity. This probably arose from the precautions observed in doing this—viz., the employment of a weak solution (1 to 5), the avoiding any denudation of the vein, and the injection of small quantities (five grammes of the solution) at a time, and that very slowly.

### The Paris Foundlings.

These, now known under the name of *enfants-assistés*, are most carefully looked after by that remarkable organisation, the Assistance Publique. They are separated into two distinct classes—(1) Foundlings, abandoned or orphan infants chargeable to the Department of the Seine; and (2) Children left without home or resources, in consequence of the illness or imprisonment of their parents. These last devolve as a charge to the Assistance Publique, but this body may recover, when it is possible to do so, the expenses it has been put to from the communes. The children, often succoured from the day of their birth, are efficaciously protected until they reach the age of twenty-one. The depôt hospital for them at Paris, which is about to be enlarged, will only hold from 120 to 150, and most of the infants are sent without delay into the country. According to the report, published in the *Union Médicale*, July 28, there were on December 31, 1872, 26029 infants provided for there. For the year there had been, indeed, 29,405 (19,966 from one to twelve years of age, and 9439 between twelve and twenty) to provide for; but from these 3376 have to be deducted, 2313 having left the establishment, and 1063 having died. It is to be observed that while the mortality has furnished during the last twenty years a mean

of 8 per cent., during 1872 it was only 5·27 per cent. The amount required for the support of these children during 1874 is calculated as being 3,794,700 francs, being 250,000 francs in excess of the sum expended in the preceding year. This increase has not arisen from a greater number of children having to be provided for, but from improvements in the bedding and clothing of the children, and from the increase in the wages of the nurses.

### Venesection.

Venesection, which formerly every surgeon's apprentice became expert in the performance of, threatens now to become one of the forgotten operations; and when the reaction arrives (which will one day take place) against its indiscriminate abandonment which now prevails, many will be found who, from want of practice, will prove but clumsy operators, obtaining either insufficient supplies or endangering adjacent arteries or nerves. We suppose that it is in order to provide for the inefficiency of the few who may now and then still have to bleed that Dr. Letheule proposes (*Presse Médicale Belge*, July 19) the employment of a capillary trocar, which he says may be even used by persons ignorant of medicine without danger, for a wound in an artery caused by this would, owing to the elasticity of its walls, prove of little consequence. How the rapid flow of blood, so much relied upon by practitioners as conducing to the therapeutical efficacy of venesection, is to be obtained by this means it is difficult to perceive.

### Acute Ranula.

In bringing this subject before the Société de Chirurgie on June 3, M. Tillaux observed that there are two forms of the affection met with. In one of these it is chronic, and then it is due, in the author's opinion, to the production of a cyst through the dilatation of one of the numerous excretory ducts of the sublingual gland, due to its obliteration near its orifice in the mucous membrane—a cyst, in fact, due to retention. But this explanation will not serve for the cases in which the ranula is rapidly or almost instantaneously developed. In one case, a man going to bed apparently quite well awoke at three in the morning with threatening asphyxia, a fluctuating tumour the size of an egg having become developed in the floor of the mouth in that short time. In a second case, a woman, while going downstairs, found an analogous tumour almost instantaneously appear; and another woman, while sitting by her fire, observed the formation of an enormous liquid tumour in the same place. The fluid these tumours contain resembles saliva in its physical characters, and that is probably its nature, although its chemical examination has only been imperfectly performed. But these tumours, rapidly as they are produced, are not formed by the simple infiltration of liquid into the cellular tissue of the floor of the mouth. They are encysted, having their proper membrane, which may be isolated or excised. The walls of such a cyst could not become organised in a few hours, and the fluid must collect in a pre-existing closed cavity. Some persons explain this occurrence of acute ranula by the obstruction and dilatation of Wharton's duct. But in order for this to take place this duct must be dilatable; and M. Tillaux in the experiments he has tried of dilating this canal by injecting it with air or water, has never been able to dilate it beyond the size of a crowquill, and that only gradually. When much force is employed the liquid infiltrates through the canal into the adjoining tissues. The true explanation is to be sought in the fact that in the normal state there is a small closed cavity in the vicinity of Wharton's duct. This was described by Fleischmann, in 1841, and although Sappey and other French anatomists have not found it, M. Tillaux believes it to be if not of constant yet of very frequent occurrence. He proceeded to describe the relationship of this submucous bursa, and showed that Wharton's duct is enclosed within its anterior wall, and is only separated from the closed cavity by a very thin serous membrane. Supposing obstruction of this duct to exist, a communication between the duct and this cavity might be readily and speedily produced by rupture, ulceration, etc., and in all the cases that M. Tillaux has seen there has been such obstruction present. However, as he has always found that the walls of Wharton's duct, although as thin as those of a vein, require very great force to rupture them, he is of opinion that for the production of acute ranula they must have undergone a preliminary alteration.

In the discussion which followed, Prof. Dolbeau observed that ingenious as this explanation may be, it will not suffice for some cases that have come under his own notice. These have had no connexion with obstruction of the duct or with the bursa, and some of them have disappeared as rapidly as they arose. M. Duplay observed that the presence of saliva and the existence of a true cyst, as described by M Tillaux, are by no means observed in all cases, some of these consisting in a submucous œdema. M. Le Fort did not think that the preparations produced by M. Tillaux demonstrated the existence of the bursa very satisfactorily, and he is inclined to regard it as the result of an "*artifice de préparation.*"

## REVIEWS.

*Contribution à l'Etude Anatomique et Clinique de l'Erysipèle et des Œdèmes de la Peau.* Par le Dr. J. Renault, Répétiteur à l'Ecole Pratique des Hautes Etudes (Laboratoire d'Histologie du Collége de France); Interne-lauréat des Hopitaux de Paris; Ancien Interne de l'Hospice-Général; Sécrétaire de la Société de Biologie, etc. Paris: G. Masson, Editeur, Libraire de l'Académie de Médecine, Place de l'Ecole de Médecine 17. 1874.

*Contribution to the Anatomical and Clinical Study of Erysipelas and Œdemas of the Skin.* By Dr. J. Renault. Four figures of microscopic drawings. Pp. 116.

This little work is a study of some of the anatomical modifications to which the skin is subjected when attacked by erysipelas or œdema. The author describes successively the cutaneous lesions, first in erysipelas, and afterwards in acute and chronic œdema; he then points out the numerous features of resemblance between these two morbid states so far as concerns the primary and secondary lesions which they produce in the integument.

A preliminary chapter contains some remarks on the origin and distribution of the lymphatics of the skin, as the author considers that without a scientific knowledge of these points the *rôle* of the lymphatics in the morbid conditions of which he treats could not be completely understood.

The greater part of the monograph is divided into two parts. The first of these, almost exclusively anatomical, consists of the description of the lesions of the skin in erysipelas, in acute and chronic œdema, and finally in elephantiasis—a termination common to these affections. The second is more particularly clinical, and treats of the affinities observed at the bedside of the patient between erysipelas and œdema, as well as of the numerous and close connexions between them and certain forms of lymphangitis and cutaneous hypertrophies, of which the extreme phase is elephantiasis.

Finally, the last thirty pages are occupied by descriptions of cases corroborating the statements made in the first part of the memoir. These include cases of lymphangitis in erysipelas, of aggravated erysipelatous bullæ, of acute œdema of the skin, of chronic œdema with dilatation of the lymphatic capillaries, and the production of elephantiasis, and an interesting example of elephantic œdema, of a warty kind, of the skin. These cases have furnished the author with materials for his observations and descriptions, and are reported in detail as witnesses of the accuracy of his remarks.

These observations serve to confirm views previously advanced. As is well known, Frank has drawn attention to the state of the lymphatic glands of the neck before and during an attack of erysipelas; so has Chomel; so, too, has Busk, who considers that in erysipelas, although the blood becomes affected, the actual primary seat of the local inflammation is in the absorbent system. Billroth, too, and with him M. Després, has stated that in erysipelas the lymphatic network is always inflamed, and that the eruption is nothing but a capillary lymphangitis. The author himself, after quoting the opinions of Blandin, Raynaud, and Gosselin, says it is quite true that, in "trajective" lymphangitis, there is seen about the lymphatic vessel a ribbon-like redness, very analogous to that of certain erysipelatous patches, and that this redness appears due to inflammation of the vessel; and he thinks that the network-like redness which is seen sometimes in erysipelas is due to the peri-lymphangitis of the deep meshes of the cutaneous absorbents, but that as regards erysipelas itself it should not in any case be considered as an angeioleucitis pure and simple. Inflammation properly so called of the deep lymphatic vessels of the skin is far from being in fact a constant phenomenon in cutaneous erysipelas; one sees well the white corpuscles

accumulating about the lymphatic spaces, filling and distending them, the corresponding lymph-glands becoming irritated and tumefied, proof of the very great activity of the absorbent system in such a case, but one does not see in all erysipelas cases the lymphatic trunks properly so called, filled by white corpuscles or by pus, presenting in their neighbourhood and around them the lesions described as belonging to peri-lymphangitis and interstitial angeioleucitis. Moreover, when such a condition exists in one spot of erysipelatous skin, it may fail in another place, where erysipelas is nevertheless in full activity. The author found that out of twenty-five cases reticular lymphangitis was proved only five times, and concludes thence that it is not possible to affirm that the eruption of erysipelas is nothing else than a lymphangitis. With regard to its relation to lymphangitis, erysipelas does not appear sensibly to differ from other inflammations of the skin. Erysipelatous dermatitis, if intense, necessarily produces great activity of the lymphatics; it may even inflame them—perhaps only so far as the subcutaneous networks, perhaps a great way off—and cause a "trajective" angeioleucitis.

Dr. Renault has been led to admit that at the moment when erysipelas is in full activity, the lymphatic network is the means of the principal elimination of the white corpuscles. Its temporary distension may probably, when exaggerated, cause lymphangitis, in the same manner as every excessive irritation of the skin, but this ought not to be considered as a *necessary* consequence of every erysipelatous inflammation. Those who read these and other like statements in Dr. Renault's work will perhaps call to mind the observations brought before the Pathological Society, in 1869, by Dr. Bastian, which would lead us to look to the conduct of the white blood-corpuscles for an explanation of many of the phenomena of erysipelas, such as coma, albuminuria, etc.

This little work will well repay careful study by the surgeon; it brings out in strong light the clinical, anatomical, and pathological relations of erysipelas, œdema of the skin, and disorders of the lymphatic system.

## FOREIGN AND COLONIAL CORRESPONDENCE.

### FRANCE.

Paris, August 2.

THE HÔTEL-DIEU, PARIS: HISTORICAL ACCOUNT—THE NEW HÔTEL-DIEU: ITS COST; THE THIRD STOREY TO BE PULLED DOWN; SIZE OF THE HOSPITAL—GREAT NUMBER OF MALINGERERS IN PARIS HOSPITALS—THE PHYLLOXERA COMMISSION OF THE ACADEMY OF SCIENCES: DISCUSSION ON THE USE OF THE TERMS "CONTAGIOUS" AND "PARASITIC"; PRIZE OFFERED FOR A CURE FOR THE VINE DISEASE—M. MAURIAC'S LECTURES ON VENEREAL DISEASES—RECENT ADDITIONS TO THE COLLECTION IN THE JARDIN D'ACCLIMATATION.

WHEN it was reported a short time ago that the third storey of the new Hôtel-Dieu was to be pulled down, I could not imagine that the decision of the Municipal Council of Paris would have been carried into effect, as it seemed to me so insane to pull down a new construction after the enormous outlay of money and labour it cost for its erection. You are aware that this new building was intended to replace the old Hôtel-Dieu, which was condemned for its insalubrity, and as being a regular nest for fevers and all sorts of zymotic affections. But before this venerated old building is handed over to the tender mercies of the demolishers, it may not be uninteresting to some of your younger readers to give them a short historical account of this monument of antiquity, which has been the school from which have emanated the most eminent men of our profession.

The present Hôtel-Dieu is the most ancient hospital in Paris, and perhaps in the world, its foundation being attributed to St. Landry, Bishop of Paris, in 660, under Childéric II. It possesses no architectural beauty, and was originally intended and devoted as an asylum for the poor, but it was only in the eighteenth century that it was converted into a hospital. Philip Augustus, who was a great benefactor, patronised the hospital, and gave it the name of "Maison de Dieu." St. Louis enlarged the hospital, exempted it from taxes and duties, and endowed it with an annual revenue. Henry IV., Louis XIII. Louis XIV., Louis XV., Louis XVI., and several private individuals, contributed to its improvement by donations and legacies. In 1789 it was called "Hospice d'Humanité." Those who have visited this old building will remember that the first hall after the vestibule contains a marble statue, by Bosio, of the celebrated philanthropist M. de Monthyon, who died in 1820, and was known to be a great benefactor to the hospitals of Paris. Opposite this statue is one of St. Vincent de Paul, another celebrated philanthropist and hygienist of his time. On the walls of this hall are to be seen the portraits of Bichat, Derault, Moreau, Dupuytren, Boudon, Méry, Desault, and Thibault. There is besides an elegant marble monument erected to the memory of Desault and Bichat, and the last addition to this group of departed celebrities is a beautiful bronze and life-like bust of the illustrious Trousseau.

Crossing the Seine by an inner passage, we reach a hall containing six marble tablets in memory of the benefactors of the establishment, and also statues of Henry IV., St. Landry, and St. Louis. In the adjoining court is a venerable and interesting chapel of the sixth century, which is spoken of by Gregory of Tours, who lodged for some time in the buildings annexed. It was once known as the Church of St. Julien le Pauvre, and has an entrance by the street of that name. It consists of a nave and aisles, with a choir, elegantly groined. Pillaged by the Normans in the ninth century, it afterwards became the property of the Abbey of Longpont, which derived a good revenue from its well, the water of which was supposed to possess certain miraculous properties. The best paintings in this church are—"Christ Exhorting the Jews to give to Cæsar what is Cæsar's;" "The Raising of Lazarus," by Lelay; "The Resurrection of Christ;" "The Judgment of Solomon;" and "The Flagellation." The original building has been, from time to time, considerably extended by additional wings and annexations to meet the requirements of this great city. Among the annexations to the hospital was a building which was situated in what is called "La Place du Parvis," in front of Notre Dame and the old hospital, with which it communicated by a subterranean passage. This annexed portion, which was once a foundling hospital, was allotted to medical and surgical patients, and contained the "*bureau central*," to which are attached a board of physicians and surgeons, who give out tickets of admission to the other hospitals of the town. You will observe that I have spoken of this building in the past tense; it is because it also has been pulled down, in order to make room for the completion of the new building.

The present Hôtel-Dieu is to be replaced by another in course of construction on the Quai Napoléon, at a cost of about 30,000,000 francs (£1,200,000). This was the original estimate; but before it is completed it will probably cost as many more millions, as it has been decided that the third storey should be pulled down, as this, when occupied for some time, would place the new exactly in the same unhealthy condition as the old hospital. I am told that the pulling down of this storey alone will cost 5,000,000 francs. This is certainly a reckless way of spending the money of the country that stands so much in need of it at present. If the Commission that was appointed by the Republican Government were actuated by motives of professional duty alone, nothing could be said against this wholesale waste of money, time, and labour; but many people, among whom are included several medical celebrities, are inclined to think that this decision has been arrived at merely to oppose that of the preceding *régime*. Be this as it may, I cannot help thinking, and I have heard others say the same, that instead of pulling down the third storey of this building at such an enormous outlay, it might surely have been utilised in more ways than one—such as the placing in it of convalescent patients, or appropriating it to cases of infectious diseases, and thus relieve the general wards with which these latter are encumbered.

The new Hôtel-Dieu is situated opposite the old building, and almost adjoining the great Cathedral of Notre Dame, and covers a space of 22,000 square metres, or five acres and a half of English measure. It was originally intended to contain 800 beds; but, owing to the removal of the upper third storey, the beds will be reduced by about one-third. This will necessarily increase to a great extent the expense of the keep of each patient, the amount of which is, I am told, something fabulous.

The annexed portion of the Hôtel-Dieu having been pulled down, the patients, about three hundred in number, have been distributed over the wards of the old hospital, which has, of

course, added to the already overcrowded state of the place. The pulling down of this hospital has also contributed to the other hospitals of the town being crowded. And this reminds me that the hospitals are swarming with malingerers of both sexes, who are driven hither by distress arising from laziness or want of work. The hospitals of Paris are generally filled with would-be patients of this class; some of them make a regular profession of it, and live by it. They feign all sorts of diseases, and do it in such a skilful way as to deceive even the most experienced physicians and surgeons. Feigned diseases, like real ones, seem to assume an epidemic character, and the malady which is now rife is locomotor ataxy; and in order to give you an idea of the extent to which this is carried on, I shall relate one case among hundreds that lately took place at the temporary hospital in the Rue de Sèvres. One of these malingerers, who had been in the hospital feigning another complaint, had copied a true ataxic patient who was in the same ward with him. The physician, Dr. Damaschino, having suspected the man, kept a watch over him, put him through a sort of sham treatment, and succeeded in discovering that the man was a thorough malingerer. He was fifty-five years of age, a tailor by profession, and of a strong constitution. He simulated paralysis; but, unfortunately for him, he was but imperfectly acquainted with the theory of this infirmity, as he was unable to put into practice the concomitant phenomena of the affection. At times he pretended that he could not open his hands, and at others that he could not close them; but, not suspecting that he was watched, was seen using his fingers as well as any other healthy man at his meals. When in bed his limbs offered no resistance when the physician tried to extend or flex them; but at an unguarded moment he was seen walking about like any other man. He complained of fixed pains, which are not characteristic of true ataxy. The symptoms and the progress of this false ataxic were too abnormal for an attentive observer to be deceived for any time. M. Damaschino succeeded in detecting the fraud by pretending to be the dupe of the patient. Under the high-sounding term of "sulphuret of cadmium," he prescribed with great solemnity a little kitchen salt, apprising him at the same time that this energetic remedy was intended to counteract such and such a symptom, which did not fail to produce the desired effect. But the patient soon began to complain of pains in the stomach, which he said were caused by the violent remedy that he was subjected to, demanding in its stead tonics and stimulants. A short time after he declared himself quite cured, praising the doctor for his remarkable skill and ability, and, as a matter of course, he was turned out of the hospital.

For some time past the Academy of Sciences has been warmly engaged in a discussion on the nature and origin of phylloxera, which has caused such havoc in the vineyards of France. A Commission was formed with a view of determining the administrative measures which would be the most efficacious to preserve the French soil from the destruction caused by this insect. In the report drawn up by M. Bouley, one of the members of the Commission, the word "contagion" is used to characterise the mode of propagation of the phylloxera, but at a subsequent meeting he expressed his regret that the word contagion should have been used in the official report, it being scientifically incorrect. In speaking of the disease of the vine, he added that the term "parasitic disease" should have been substituted for "contagious disease," on the ground that all parasitic diseases are caused by the presence of a parasite—that is to say, an animal or vegetable being that nourishes itself at the expense of another living being. In contagious diseases, however, nothing is known beyond this succession of general and local phenomena, and the corresponding changes that are observable in the substance of the elements of the blood, of the lymph, and of the tissues in general. The agent that has produced these pathological changes has not yet been so distinctly isolated or separated from the organisms affected as has been done for all parasitic diseases, so that we are still in ignorance of the real nature of this toxic agent. According to M. Robin, it is indispensably necessary, in the interest of physiological pathology, that a distinction should be clearly established between these two orders of affections and biological phenomena. He therefore approved of the malady caused by the phylloxera being designated parasitic and not contagious. M. Bouillaud, in replying to M. Robin, stated that there is no contagious disease without a contagious principle, which, although not seen, does not the less exist. A disease (he added) which we regard to-day as contagious, is perhaps none other than a parasitic malady, the parasite of which—the cause of the disease—we have not yet discovered. M. Pasteur declared that the word "contagion" may, in the case under notice, be employed without hesitation. In infectious diseases, continued the worthy *savant*, we observe not parasites visible to the naked eye, as is the phylloxera, but the development of ferments—of beings perfectly organised. M. Dumas shared the opinion of M. Bouillaud and of M. Pasteur; because in the first place the Commission did not wish to theorise on the subject; and secondly, because he does not consider the distinction between contagious and parasitic affections necessary, which opinion he expressed in the following terms:—"I have known the time when the acarus of the common itch was considered as the effect of the disease, and that this latter was then considered contagious. When it was known that the acarus was the cause of the malady, it became classified among the parasitic affections; but is it not always the same disease, transmissible under the same conditions?" The Commission, in fact, wished above all to make the vine growers understand the extreme danger that threatens their vine; and this is the reason why they adopted the expression "contagion," the signification of which the peasants and the public understand better. This discussion, it is true, applied more particularly to the real signification of a word, but it has nevertheless not been without interest; and this is my reason for having entered so fully into it.

*Apropos* of this subject, I have just read this morning that on a proposition by M. Destremx, one of the members of the National Assembly, a prize of 300,000 fr. has been offered to the inventor of the most efficacious and economical means that may be applied to destroy the phylloxera, or at any rate to prevent its ravages. This appeal is addressed as much to science as to agriculture. In fact, the means proposed up till now have been completely powerless to arrest the progress of the disease. This terrible invasion began in the departments of the Gard and of Vaucluse in 1868, and has extended nearly all over the South-West of France, ravaging the central vine provinces, and threatening to invade the rich vine districts of Burgundy and the Gironde. This vine disease has for its cause a microscopic insect, the phylloxera, which M. Planchon, professor of the Faculty of Montpellier, was the first to point out. This insect is most prolific, and is reproduced by thousands, and with the greatest rapidity. It is most destructive, the vine being its natural source of existence, which it attacks at the root, working its way from one stock to another to the surface or to the depth of the soil, whatever the nature of the latter, for nothing seems to arrest its progress. The removal of the plants attacked, the submersion of the vine, are not sufficient to combat this dreadful plague. Several chemical agents have already been proposed, such as the sulphuret of carbon; and mixtures disengaging sulphuret of hydrogen have been tried without any great success. Moreover, these measures are very expensive and difficult of application; but the evil is great, and it is to science that belongs the duty of finding out the proper remedy.

I have lately attended the opening of a series of lectures proposed to be delivered by M. Mauriac, physician of the Hôpital du Midi, the hospital devoted to the treatment of venereal diseases in the male sex. His first lecture treated of generalities of this class of affections, and the *savant* physician furnished most valuable information as to their nature and treatment based upon physiology and general pathology. He then rapidly reviewed the different doctrines that have been enunciated on the nature of the syphilitic virus, its unity and its duality, briefly referring to these important subjects for the present, as he intends reverting to them at a future period. Lastly, M. Mauriac finished his very interesting introduction by resuming the general views entertained by syphilographers as to the pathology of syphilis, showing the great obscurity in which the subject is still involved, in doing which he quoted the following passage from the highly valued work of the lamented M. Follin:—"Syphilis, like man, which it affects, seems to have always been a great and permanent enigma." He then selected for his first dogmatic lecture the subject of balano-posthitis, its varieties and its treatment. After the lecture the patients affected with this malady were presented to the audience, who were permitted to examine them at their ease. M. Mauriac, I am glad to say, is very communicative, and always ready to reply to the different questions addressed to him. Students and others desirous of perfecting their knowledge of venereal affections will do well to follow these very interesting lectures, and

the means placed at their disposal to instruct themselves in perhaps the commonest diseases to which the human race is subject.

In my letter of August 18 last, I noticed a young filly that had just been foaled at the Jardin d'Acclimatation, in the Bois de Boulogne, of a mare mule and an Arab horse. This mare has (about three months ago) again foaled by the same horse, the filly resembling in all respects its elder sister. *Apropos* of these zoological gardens, I have to announce the arrival in them of a very young elephant imported from Sumatra. It is the first male of its species that has been brought to France at so tender an age. Every care seems to be taken of the animal; it is very gentle and intelligent, and particular care has been taken for its new habitation. It is about one metre high, which is equal to the size of a small donkey. But the most curious part of the history of this little elephant is the kindly reception it met with from "Romeo" and "Juliette," the two adult elephants so well known to the visitors of these gardens, and which were presented some years since by the King of Italy. These gardens have made a very important acquisition in two variegated Russian hares, which it is proposed to propagate in the Bois de Boulogne. These hares, as their name implies, have the singular property of changing colour. About the month of February they assume a reddish colour, very different from the common hare, and in the month of November they quit this fur to adopt that of winter, which is white.

Before leaving these interesting gardens, I may make mention of the arrival of two animals, which of all others of the creation most approach man in physique. I allude to the orang-outang. They have been imported from Batavia, and are of the male and female sex, and about three years old. The sailor boy who accompanied them would not separate from them, and has actually partaken of their habitation. This is certainly a most interesting subject for the study of naturalists. Buffon, it is known, possessed an orang-outang, whose intelligence was developed to such a degree that history states that he served his master at table, and threaded needles for him with an amount of address that would do credit to any dressmaker.

## GENERAL CORRESPONDENCE.

### THE DENTAL DIPLOMA.

LETTER FROM MR. CHARLES JAMES FOX.

[To the Editor of the Medical Times and Gazette.]

SIR,—Whilst thanking you for the kindly manner in which you have mentioned my name in your last issue in connexion with the concessions recently obtained from the Royal College of Surgeons in favour of dentists who were in practice prior to 1859, I trust you will permit me to add that, but for the cordial and zealous support which Mr. Edwin Sercombe, the chairman, and Mr. James Parkinson, the treasurer of the Dental Diploma Committee, afforded me from the moment I first sought their co-operation, the long list of honourable names appended to the petition could scarcely have been obtained. To these gentlemen, moreover, the thanks of the dental profession are especially due, as they had to face and resist an amount of private opposition to and ridicule of our scheme, which would have deterred many men from prosecuting it. The rest of the Committee, moreover, should not be forgotten—Messrs. Rymer, Steele, Kempton, Elliott, Scully, Dennant (of Brighton), Newman (of Liverpool), and the late Mr. Haslam were all representative men, well known either in the metropolis, the provinces, or the schools; whilst the co-operation of Mr. Oakley Coles, the hon. sec., was especially valuable, inasmuch as he worked for and obtained the dental diploma during the progress of the movement, thus showing that such a movement could be carried on from purely disinterested motives.

I am, &c.,

CHARLES JAMES FOX.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCES.—The next session of this thriving scientific body is to be held at Lille, from August 20 to 27. All applications relating to it are to be made to the Secretary, Professor Gaviel, 76, Rue de Rennes, Paris, or to Professors Gesselet and Terquem, two local secretaries, Lille.

## REPORTS OF SOCIETIES.

### THE EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, JUNE 10.

INSPECTOR-GENERAL LAWSON, Vice-President, in the Chair.

Dr. BUCHANAN read details of Scarlet Fever last January, February, and March, at Presteigne, Radnorshire, communicated by Dr. Hanson, Medical Officer of Health. Many of the houses were in a bad sanitary condition, the people poor, and the patients not kept indoors, yet there were only three deaths to 198 cases. These cases occurred in sixty-eight families, numbering 425 persons. Thirty-three of these were known to have had scarlet fever previously; not one of them had a recurrence; 194 escaped, many of them being young and susceptible. The disease was, without doubt, scarlet fever, though so mild in many of the cases; all were traceable to one child who brought the disease into the town. One-fourth of the cases were under the care of Dr. Hanson. All had throat affection; fifteen had severe angina. The temperature ranged from 102° to 104°. The rash appeared on the second day of illness; it was followed by desquamation. Albuminuria was not an uncommon sequel; six cases had acute desquamative nephritis. One of the deaths was from consequent dropsy. The ages of those attacked ranged from six weeks to sixty years. By far the greater number (125) of the cases were between the ages of two and ten years; the fatal cases were at four and six years. There were twenty-one cases under two years, and thirty from ten to twenty years of age. These details are quite sufficient to prove the disease to be scarlet fever, and not the common rubeoloid exanthem once confounded with scarlet fever under the name of "rosalia." They are of interest also as showing scarlet fever still existing in the mild form described by Sydenham, for it is not often that we meet with a mortality so low as ½ per cent. to the number attacked, and only 0·15 to the population. In an English village of 1010 inhabitants, the registrar reports twelve deaths from scarlet fever in a single quarter of 1872—or eight times the fatality shown in this epidemic.

Dr. MOUAT said that epidemics of scarlet fever had been noticed in Calcutta both by himself and his father, and also by the two Drs. Goodeve, quite as mild as that brought forward by Dr. Buchanan. The cases to which he referred were really of scarlet fever, as proved by the frequent occurrence of albuminuria, and sometimes of further kidney affection. The thermometer, which is now doing so much to clear up the nature of Indian fevers, he had to regret was not then in use.

The HON. SECRETARY read his translation of M. Léon Colin's paper "On the Conditions of Propagation of Small-pox and Cholera":—These, our most prevalent epidemics, differ as widely in their mode of extension as in their symptoms. The diffusion of the one depends most upon topographical and hygienic conditions; of the other, upon contagion. We must recognise in the propagation of both the simultaneous intervention of the two different factors of—(1) the human organism, or individual susceptibility; and (2) an epidemic influence (*épidemicité*), or epidemic constitution. Susceptibility to small-pox is obviated by vaccination or the previous occurrence of the disease. A prolonged sojourn in choleraic centres diminishes susceptibility to cholera. Regiments which stayed several months at Gallipoli in 1854 ceased to furnish fresh cases of cholera, while new arrivals from France continued to suffer. In our military small-pox hospital at Bicêtre during the siege of Paris, with 8000 admissions for small-pox, and more than 1000 patients at a time for three months, none of our forty assistants or our nurses had small-pox, while it was among the new arrivals of hastily raised troops from parts where there had been no small-pox, and where vaccination was neglected, that small-pox was developed with its maximum of epidemic intensity. In my work "La Variole au point de vue Epidémiologique et Prophylactique" is set forth the extension given to the late epidemic in France by the movement of troops occasioned by the war of 1870, and is traced the penetration into England, Belgium, and Switzerland of the germs of it exported by the civil population removing from the theatre of war. The height of the epidemic among the civil population of Paris preceded that among the troops. During an epidemic of small-pox the number of persons

attacked causes the number of the susceptible to diminish every day; at the same time that the practice of vaccination, favoured by the fear of the illness, has a similar effect. In this way it seems that both the disease and the doctor conspire to arrive, by different ways, at the same prophylactic end. This accounts in a great measure for small-pox not breaking out again in Paris after the siege, but not altogether; many of the persons returning to Paris in 1871, or sent to Bicêtre when restored to its former use, certainly might have taken small-pox by inoculation, yet none of these people were seized with the disease. The poison of small-pox is always inoculable in the same degree, epidemic conditions have no influence on inoculation, and by this means the virus is transmissible at all times and seasons: the contagion of small-pox loses all power of atmospheric or miasmatic transmissibility in the interval of its epidemic prevalence. I think, then, that there are in the conditions of the atmosphere certain modifications, whether physical or chemical, which act on volatile contagia in extending or limiting their diffusion and activity. Epidemics of small-pox are often accompanied or followed by other epidemics —as measles, erysipelas, diphtheria,—so that the atmospheric conditions favourable to the small-pox germ have the same influence on the germs of some other diseases which show themselves on the skin and mucous membranes. The frequency of hæmorrhagic or black small-pox in this particular outbreak is another proof of a general influence or epidemic constitution. The cause of this certainly was not in the individual: it was common at the commencement of the siege of Paris, when there was no privation; later on, when patients suffering scorbutus were attacked with small-pox, it was often in a mild form, and never hæmorrhagic, nor had the massing together of such a number of patients any special effect in aggravating the course of small-pox, for the mortality at Bicêtre (14 per cent.) was not greater than that of smaller establishments. The subordination of human susceptibility to the epidemic influence is much less marked in the spread of affections specially contagious than in that of cholera; some localities, as Lyons, resist the development of this disease in spite of the frequence and the extent of their communications. The theory of contaminated drinking-water will not explain the march of cholera epidemics: instead of descending the course of streams, cholera ascends them, as in 1873, from Havre to Paris, or proceeds at right angles to them, as in 1832, from Calais to Paris. In the month of September, 1873, the epidemic broke out simultaneously in different quarters of Paris. It is evident that places remote from each other, attacked at the same moment, could not have been successively infected by the intermedium of water. Still, the effect of human communication in the transmission of cholera remains, subject, it is true, to some superior conditions on which the rapidity of generalisation must depend. In 1832 the cholera which broke out in Paris came from Russia in less than two years, while now, in spite of our railways, the cholera which burst forth in Paris in 1873 had existed in Russia for nearly five years. Admitting an impulsive or restrictive epidemic influence, it is necessary to remember that this can never outstrip the rate of human communication. It was not till the introduction of steamships that cholera ever travelled in eight days, as in 1865, from Alexandria to Ancona. Small-pox and cholera have, then, some points of resemblance and of difference in the action upon them of the two factors under consideration. Small-pox extends slowly, seizing upon different quarters of the same place in succession, whatever the sanitary state of the locality; it lingers long, and has a winter recrudescence. Cholera never prolongs its stay in one place, except in some rare localities where it can become endemic; it sweeps past sooner than small-pox, it seizes at the same time different quarters of the same town, and its recrudescence is in the summer. It was thought that these two diseases might be mutually exclusive; this is not so: they prevailed simultaneously in Russia in 1871, and exist together at the present time (1874) in certain towns in Germany.

Dr. Gavin Milroy, in moving a vote of thanks to Dr. Léon Colin, remarked that the Society had been fortunate this session in receiving communications from several of its most distinguished corresponding members. He might mention Dr. Tholozan, Dr. Cuningham, and the author of the present paper. Cholera and small-pox are the chief representatives in our time of two different kinds of epidemics, just as plague and small-pox were in the time of Sydenham. Their occasional recurrence forced attention to the fact that in some seasons infectious diseases have a great tendency to spread, in others they refuse to become epidemic. The mere presence of the germs of disease is insufficient to generate an epidemic; and allowing for a difference of individual susceptibility, we must admit the operation of an inscrutable influence—the epidemic cause or constitution.

Dr. Grieve said it was difficult to reconcile the views expressed in the paper with those more fully set forth in M. Léon Colin's work, "La Variole." In that work there seems no place for any inscrutable epidemic influence. We see a number of susceptible persons brought together; the disease is introduced, and spreads amongst them; it ceases to spread when all the susceptible exposed to the contagion have been attacked. Certain conditions of the atmosphere appear to influence the diffusion of small-pox; and this subject merits further investigation. The evidence points to excessive humidity as assisting the spread of the disease, and this independently of temperature. In the warm and moist climates of the West Indies, Africa, and other places, small-pox prevails extensively. In India the disease has greater activity in the wet season. According to Parkes, "plague and small-pox are both checked by a very dry atmosphere," and "in the dry Harmattan wind on the West Coast of Africa small-pox cannot be inoculated." To its very dry atmosphere it is probable Australia owes its freedom from this disease. Cold weather is no protection against it, and may assist its diffusion by promoting overcrowding and deficient ventilation. All the facts bearing upon the late epidemic show it to have been communicated from person to person. Dr. Colin mentions in his book that he saw to the vaccination of the assistants at Bicêtre with his own eyes, and hence their freedom from attacks. Habituation gives protection only by the elimination of the susceptible, and the experience at the Hampstead Hospital agrees with that of others in showing that the only protective to be relied upon is revaccination. In two instances where servants, who alleged that they had previously suffered from small-pox, were engaged in the hospital without being revaccinated, fourteen days after their entry the eruption appeared. All the other assistants escaped, but they were revaccinated.

Inspector-General Dr. John Murray had known cholera and small-pox prevail together in India about May; but then cholera was always increasing and small-pox decreasing as an epidemic, and so it was from year to year. Though certain seasons favoured certain diseases, he did not consider any special atmospheric constitution so important a factor as the part played by the human body. In opposition to the general remark made by Dr. Cuningham, he had known instances of cholera spreading quicker in India since the introduction of railways. As to cholera ascending rivers, it must do so when the port is at its mouth, and the river navigable; but it also descends rivers. He had known it travel down the course of the Indus from Mooltan to Hyderabad, though he did not mean to say it was carried by the river water.

Dr. Buchanan wished to refer to Sydenham's work for the sense in which he used a term again coming up for discussion. "Epidemic constitution" is the heading of certain chapters in which he reviews the prevalent diseases of the time under consideration; he sums up the diseases of each year under this heading, and does not use the term as implying a cause of disease. The secret disposition or "texture" of the air, whereby the same disease is one season epidemic and in another only seizes here and there one, is something quite different —of an unknown nature to him,—but, as he says, not independent of the seeds from an infected body.

Dr. Squire had come to the same result as Dr. Buchanan upon recent reference to the writings of Sydenham. He speaks of a "state of the air" which is translated back to us from the Latin as "atmospheric constitution"; he says the cause of epidemics "is a hidden alteration in the air, infecting men's bodies," and that "only so long as the air contains this secret cause can the epidemic range." His observation first proved that it was "not heat or cold, dryness or moisture, but some inexplicable effluvia in the air that forced the body into this or that disease." Had he looked to the bodies of the sick, instead of to "unknown intestine changes in the earth," as the source of this infecting effluvia, he would have been near the hidden cause that was wanting. Dr. Murray's remark that cholera must ascend rivers, because it is so frequently introduced at a port near the mouth, is a complete answer to this argument used against the water theory. In the autumn of 1848 cholera appeared in a town in Buckinghamshire, where several streams from the chalk unite to form an affluent of the Thames. It was introduced by a young man who had been on a visit to

Woolwich, and had symptoms of cholera a few days after his return. His laundress, who lived near the commencement of the one stream, on a road running parallel to it, and on the upper side of that road, was the next person to suffer. It spread from house to house in the downward direction of the drainage, first on that side of the road. In a few days it appeared in some houses on the lower side of the road near the stream, and again spread in a downward direction. All these houses were built on a thin stratum of gravel immediately overlying the chalk. One person only in the upper part of the town was seized, but it spread in no other direction than down this stream, though it was imported from a place near its termination. The brother of the first case, living in Hampshire, visited Woolwich at the same time, and was taken ill on the same day, without the disease spreading. The first case in this town (Chesham) was on October 26, 1848, the last on January 9, 1849. Upwards of eighty attacks were recorded, of which fifty-six were well-marked and very severe; of these thirty-five proved fatal.

Dr. Fred. Cock was personally intimate with three gentlemen, who, on October 21, 1853, came from three different villages in Kent, and dined together at the Nag's Head, Borough. One was only in London a few hours; the other arrived the day before, and returned the day after. These two were taken ill on October 22 and 23, the other one on October 23. The landlady of the hotel was ill at the time with choleraic diarrhœa. The one who was only in London a few hours on the 21st was seized at seven a.m. on the 23rd, was in a state of collapse from the 27th to 29th, and had a long convalescence after consecutive fever. One of the others was seized before he left London, but was able to return home, and made a good recovery. The third case was fatal on October 27. Cholera was communicated in this instance—first to the wife, on October 28, and was fatal on the 31st; next to a friend much in contact with the sick, on the 30th, and caused death in little more than twelve hours; and, lastly, to a manservant on the 31st, and proved fatal on the second day. Cholera never visited that village (Appledore) either before or since. It did not spread in either of the other villages.

Inspector-General Lawson said: Dr. Grieve holds the opinion that the recent epidemic of small-pox in London is attributable to the importation of fresh cases of it from Paris previous to the siege. If, however, we go from opinion to fact, we find that small-pox is never absent either from London or Paris; that about every four years an epidemic increase takes place in the disease in both; and that the period of greatest intensity is about a year later in London than in Paris. Thus in Paris there was an epidemic in the winter of 1861-62, and in London the mortality from small-pox increased at the end of 1862, and reached its highest in the second quarter of 1863. Again, in Paris the deaths from small-pox rose in the third quarter of 1865, culminating in the winter; while in London they began to increase in the first quarter of 1866, and attained their maximum in the first quarter of 1867. In the last epidemic exactly the same course was followed. Small-pox had increased in Paris at the end of 1869, and the epidemic was at its height in the winter of 1870. In London there was a tendency towards increase, but the epidemic was not marked till the end of 1870; it culminated in the last quarter of 1871. This increase of small-pox in 1870 was not confined to London, but was met with in Liverpool, and in the mining districts of Durham and of South Wales, where, as in London, it became largely developed in 1871. The last epidemic far exceeded in intensity, both in London and in Paris, any of those which preceded it. Small-pox had prevailed with unusual severity in the South of France long before the movements connected with the war commenced, and when there was nothing beyond the usual traffic. Some adequate cause must be assigned for this remarkable aggravation of the disease. The mere presence of the virus, as in the instances of London and Paris, cannot account for it; and, on the other hand, as the force of the epidemic was developed in the South of France months before the war, this cause must be independent of the movement of the population occasioned by the war. In short, there is no alternative but to fall back on the "epidemic constitution" Professor Colin has characterised as necessary to account for the epidemic extension of the disease.

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Sir Alexander Armstrong, K.C.B., made his annual inspection of the Royal Marine Hospital at Walmer on Saturday last. He also visited the barracks of the depôt.

## MEDICAL NEWS.

University of London.—The following are lists of candidates who have passed the recent examinations:—

Preliminary Scientific (M.B.) Examination.

*First Division.*—Baddeley, Charles Edward, King's College; Berry, Frederic Haycraft, Guy's Hospital; Bond, James William, University College; Boulting, William, University College; Buck, John William, private study; Burry, Henry Burry Pullen, London Hospital; Bush, Erasmus, St. Bartholomew's Hospital; Castle, Hutton, St. Thomas's Hospital; Cattle, Charles Henry, Leeds School of Medicine; Cox, Frederick Augustus, private study; Crow, John Kent, Owens College; Drysdale, Alfred Edgar, University College; Franklin, Arthur, St. Bartholomew's Hospital; Giles, Bernard Faraday, Guy's Hospital; Gill, Richard, Royal Institution School, Liverpool; Granger, Edgar Bridden, Guy's Hospital; Gotch, Francis, B.A., University College; Hill, Alexander, University College; Jackson, Edwin, B.A., Owens College Medical School; Keep, Charles Henry, Guy's Hospital; Lyddon, Richard, St. Bartholomew's Hospital; McAlister, Donald, St. John's College, Cambridge; Mackern, George, Guy's Hospital; Manby, Herbert Lynsey, Guy's Hospital; Maylard, Alfred Ernest, Guy's Hospital; Munro, John May Herbert, College of Science, Dublin; Oldroyd, Joseph Hollinshead, University College and private study; Paddle, James Isaac, B.A., Royal College, Mauritius; Parry, Robert, Owens College; Pollard, Bilton, Epsom College; Prowse, Arthur Bancks, Liverpool School of Medicine and private study; Robertson, David, LL.B., private study; Sedgefield, Arthur Robert Wyatt, King's College; Shaw, John, St. Thomas's Hospital; Smith, George, Royal School of Mines; Smith, Kenneth Rawlings, University College; Tilly, Alfred, St. Mary's Hospital; Tuke, William Samuel, private study; Uhthoff, John Caldwell, Guy's Hospital; Wainewright, Robert Spencer, Guy's Hospital; Ward, John Hansford, Crescent School, Margate; Waugh, Henry Dunn, B.A., University College; West, Edward de Lancy, private study; White, Augustus Henry Scott, B.A., University College; Whitney, Neville Scott, University College; Wiglesworth, Joseph, Liverpool School of Medicine; Wilkinson, Arthur Thomas, B.A., Owens College Medical School; Williams, David James, University College; Williams, Dawson, University College.

*Second Division.*—Andrews, William Stratford, University College; Brook, Lancelot, St. Bartholomew's Hospital; Buckell, Arthur Edward, University College; Burt, Alfred, Guy's Hospital; Clark, James Richardson Andrew, University College; Collins, William Edward, St. George's Hospital; Culhane, Frederick William Slater, University and Epsom Colleges; Davies, William Edward, University College; Davy, David Henry, London Hospital; Dunbar, James John McWhirter, St. George's Hospital; Duncan, Harry Montague, University College; Dymott, Donald Frederick, Hartley Institution; Gabb, James Percy Alwyne, University College; Green, Thomas Beaufoy, University College; Hadden, Walter Baugh, Liverpool School of Medicine and private study; Heath, William Lenton, St. Bartholomew's Hospital; Hill, Charles Birnie, University College; Hodge, Arthur, University College; Hopkins, John, University College; Jackman, William Thomas, St. Bartholomew's Hospital; Jackson, Alfred Henrick, Owens College; Jacksou, Arthur, St. Bartholomew's Hospital; Johnstone, William, University College; Jones, Arther Lloyd, University College; Jones, Roger Hughes, Liverpool School of Medicine; Juler, Henry Edward, St. Mary's Hospital; Landon, Edward, St. Thomas's Hospital; Lendon, Alfred Austin, University College; Lubbock, Montagu, Guy's Hospital; Marsh, Joseph Henry, St. Thomas's Hospital; Matthews, Arthur, Sidney Sussex College, Cambridge; Matthews, Valentine, King's College; Parkyn, Ernest Albert, University College and private study; Payne, Charles Alexander, private tuition; Plumbe, Samuel Thomson, St. Bartholomew's Hospital; Rendell, James Robson, Owens College; Roberts, David Davies, Guy's Hospital; Roeckel, Waldemar Joseph, St. Bartholomew's Hospital; Shaw, George, private study; Smith, Herbert Urmson, St. Thomas's Hospital; Sutcliffe, John, Owens College Medical School; Tebbitt, Frederic, St. Thomas's Hospital; White, Charles Haydon, St. Thomas's Hospital.

First B.Sc. Examination.

*First Division.*—Aveling, Frederick Wilkins, M.A., University and New Colleges; Boyns, John, St. John's College, Cambridge; Buck, John William, private study; Bush, James, private tuition and study; Capper, Thomas, private study; Carrington, Samuel Herbert, Owens College; Cooper, Frank Aspland, University College; Crow, John Kent, Owens College; Gates, George, B.A., University College and private study; Gill, Richard, Royal Institution School, Liverpool; Gotch, Francis, B.A., University College; Jellie, John Stephenson, private study; Lattimer, Thomas, Owens College; Lee, William, Owens College; McAlister, Donald, St. John's College, Cambridge; Matthews, Arthur, Sidney Sussex College, Cambridge; Munro, John May Herbert, College of Science, Dublin; Saise, Walter, Royal School of Mines; Smith, Alfred John, Owens College; Smith, George, Royal School of Mines; Ward, John Hansford, Crescent School, Margate.

*Second Division.*—Bond, John Kinton, B.A., private study; Capron, Robert, B.A., private study; Fewings, James, B.A., Queen Elizabeth's Hospital and private study; Jackson, Edwin, B.A., Owens College Medical School; Paddle, James Isaac, B.A., Royal College, Mauritius; Rendell, James Robson, Owens College; Waugh, Henry Dunn, B.A., University College; White, Augustus Henry Scott, B.A., University College.

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Royal College of Physicians of London.—The following gentlemen were admitted Members of the College on the 30th ult., viz.:—

Barlow, Thomas, M.B. Lond., 48, Great Ormond-street, W.C.
Blanc, Henry, M.D. Montpellier, 2, Rue de la Paix, Paris.
Doukin, Horatio Bryan, M.B. Oxon., 29, Devonshire-street, W.
Edmunds, James, M.D. St. Andrews, 5, Savile-row, W.
Roper, George, M.D. Aberdeen, 6, West-street, E.C.

The following gentlemen were admitted Licentiates of the College on the same day, viz.:—

Boase, William Francis Fookes, London Hospital, E.
Clarkson, John Wilkins, Surbiton.
Fyffe, Benjamin, Arundel Hotel, Arundel-street, W.C.

Gould, Alfred Pearce, University Hospital, W.C.
Keates, William Cooper, East Dulwich.
Lea, Julian Augustus, Charing-cross Hospital, W.C.
Leacock, Charles George, 12, Colebrook-row, N.
Lloyd, Morgan, Guy's Hospital, S.E.
Mavor, William Samuel, Mountfield, St. Leonard's.
Mawson, William Arthur, Dispensary, York.
Moir, Gerald Chetwynd Algernon, St. Mary's Hospital, W.
Newby, Charles Henry, 7, Mecklenburgh-street, W.C.
Park, John Steele, 42, Claremont-square, N.
Pyburn, George Wilkinson, University Hospital, W.C.
Roe, Edward, St. Bartholomew's Hospital, E.C.
Seccombe, George Samuel, 3, Bellefield-road, S.W.
Sturmer, Arthur James, 10, Percy-circus, W.C.
Vawdrey, Theophilus Glascott, 2, Kent-villas, Upper Lewisham-road.
Woods, David, 40, St. Petersburg-place, W.

The following candidate, having passed in Medicine and Midwifery, will receive the College Licence on obtaining a Qualification in Surgery recognised by this College :—

Byrne, John Joseph, Cheetham, Manchester.

The following gentlemen were admitted Fellows of the College on August 5, viz. :—

Blake, Charles Paget, M.D. Edin., Torquay.
Bradbury, John Buckley, M.D. Camb., Cambridge.
Crucknell, Henry Heanes, M.B. Oxon., 58, Welbeck-street, W.
Goodridge, Henry Frederick Augustus, M.D. Lond., Bath.
Gervis, Henry, M.D. Lond., 13, St. Thomas-street, S.E.
Lee, Robert James, M.B., Camb., 4, Savile-row, W.
Liveing, Edward, M.D. Camb., 52, Queen Anne-street, W.
Moore, William Withers, M.D. Edin., Brighton.
Smith, Eustace, M.B. Lond., 5, George-street, Hanover-square, W.
Thorowgood, John Charles, M.D. Lond., 61, Welbeck-street, W.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 30th ult., viz. :—

Alford, Frederick Stephen, Hampstead.
Belfield, Charles Woolliscroft, Bristol.
Bell, George Warner, Hatfield.
Bishop, George Houlton, Harrow-road.
Byrne, John Joseph, Manchester.
Corney, Bolton Glanvill, Kennington-road.
Haslam, Thomas Henry, Finboro'-road.
Jones, Lewis, Aberystwith.
Kennedy, William Adam, Newcastle-on-Tyne.
Newman, John Jepson, Barnsley.
Noott, Edward, Dudley.
Norton-Taylor, Arthur, Maida-hill.
Sincock, John Bain, Scorrier, Cornwall.
Speirs, William, Glasgow.
Thomson, Samuel John, Ramsgate.
Turtle, James Henry, Chatham.
Williams, Herbert Ernest, Tavistock.

One candidate passed the examination in Surgery, and when qualified in Medicine will be admitted a Member of the College. Four candidates were referred to their surgical hospital studies for a period of six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 30 :—

Allen, John Edward, Bollington, Cheshire.
Bartlett, Henry, Great Dover-street, S.E.
Gawith, James Jackson, 14, Lancaster-road, W.
Hallam, Walter, Sheffield.
Hobbes, Charles Edward, Bidford, Redditch.
James, John, Aberystwith.
Snell, George, Jersey.
Wilkinson, Auburn, Tynemouth, Northumberland.

The following gentlemen also on the same day passed their primary professional examination :—

Bower, Ernest Dykes, Leeds School of Medicine.
Edwards, Roger, University College.
Fisher, Thomas, St. Thomas's Hospital.
Gathergood, Benjamin William, Guy's Hospital.
Lush, John Self, St. Thomas's Hospital.
Stocker, Charles Joseph, London Hospital.
Thompson, Harold, St. Bartholomew's Hospital.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRUNTON, WILLIAM, M.R.C.S., L.S.A.—Medical Officer, etc., for the New Radnor District of Kington Union, Herefordshire.

GRANGER, FARINGTON MARSDEN.—Second Assistant Medical Officer at the Leeds Public Dispensary.

HUNT, RICHARD.—First Assistant Medical Officer at the Leeds Public Dispensary.

JENKINSON, HAROLD, L.R.C.P. Edin., L.M., M.R.C.S.E., & L.S.A.—Senior Resident Medical Officer to the Leeds Public Dispensary.

MCGILL, ARTHUR FERGUSSON, M.R.C.S.E., L.S.A., Demonstrator of Anatomy at the Leeds School of Medicine, Honorary Secretary to the Leeds and West Riding Medico-Chirurgical Society, etc.—Surgeon to the Leeds Public Dispensary.

NEWBY, THOMAS, M.D.—Medical Officer of Health for the Borough of Grimsby.

PRINGLE, HENRY TURNBULL, M.D. Glasg.—Medical Superintendent of the Glamorgan County Asylum, Bridgend, *vice* Dr. Yellowlees.

YELLOWLEES, D., M.D. Edin.—Physician-Superintendent of the Glasgow Royal Asylum.

## NAVAL APPOINTMENTS.

ADMIRALTY.—The undermentioned Surgeons have been promoted to the rank of Staff Surgeons of the Second Class in her Majesty's Fleet, with seniority of July 16 :—George Bolster, Esq., William Inman, Esq., M.D., Michael Oscar Hurlstone, Esq., Henry Macdonnel, Esq.

## BIRTHS.

BLAKE.—On August 5, at Kilburn, the wife of T. J. Blake, M.D., of a son.

BLECKLEY.—On August 3, at Woolston, Hants, the wife of Surgeon-Major T. M. Bleckley, M.A., M.D., LL.B., C.B., of a daughter.

DOBIE.—On July 30, at Chester, the wife of Wm. M. Dobie, M.D., of a daughter.

HAWKSLEY, —, the wife of Thomas Hawksley, M.D., of Brook-street, Grosvenor-square, on August 2.

## MARRIAGES.

BLOXAM—PORTER.—On August 4, at St. Michael's, Winchester, John Astley Bloxam, F.R.C.S., of 8, George-street, Hanover-square, W., to Jessie Findlay, youngest daughter of the late Richard Porter, Esq., White Hall, Highgate.

BUCKLE—PARRY.—On August 4, at St. Mark's, Hamilton-terrace, John William Buckle, Esq., Lieut. Royal Artillery, eldest son of William Boyd Buckle, Esq., retired Bengal Civil Service, of Catton, Norfolk, to Jessie, youngest daughter of Richard Parry, M.D., of Lancaster Gate, Hyde-park, W.

CALDWELL—MILLER.—On July 30, at St. Mark's, Kennington, William Townley Duncan Caldwell, M.D., of Kennington-park, eldest son of Lieutenant-Colonel Caldwell, late of the 92nd Highlanders, of Westbourne-park, to Martha Margaret, second daughter of Dr. D. Graham Miller, 1st class Staff Surgeon, R.N., of Kennington.

FOX—BURGOYNE.—On July 30, at St. Mary Magdalene's, Campsall, Doncaster, Wilson Fox, M.D., of Grosvenor-street, to Evelyn, widow of Hugh Burgoyne, Captain R.N., and daughter of Admiral Sir Baldwin Wake Walker, Bart.

JONES—HIRD.—On August 1, at St. Matthew's, Oakley-square, N.W., C. Davenport Jones, solicitor, Hastings, second son of Thomas Jones, Surgeon, Ruthin, Denbighshire, to Fanny Mary, only daughter of Charles William Hird, solicitor, 3, Mornington-crescent, and Portland-chambers, Great Titchfield-street, W.

MASON—HANNAH.—On June 24, at St. Andrew's, Calcutta, James Wood Mason, officiating Curator of the Indian Museum, and Professor of Comparative Anatomy, Medical College, eldest son of Joseph Wood Mason, M.D., of The Laurels, Church-street, Stoke Newington, to Louisa, daughter of W. E. Hannah, of Calcutta.

MITCHELL—LESLIE.—On August 1, at St. Lawrence, Alton, Hants, William Bruce Mitchell, 93rd Highlanders, only son of the late William Brand, Esq., W.S., Edinburgh, to Blanche Maddeford, eldest daughter of Louis Leslie, M.D., of Amery House, Alton.

RANKING—DUNCAN.—On July 29, at St. John's, Tunbridge Wells, John E. Ranking, B.A. Oxon., M.R.C.S., seventh son of the late Robert Ranking, Esq., of Hastings, to Elizabeth, eldest daughter of Robert Duncan, M.D., F.R.C.S., of Hanover House, Tunbridge Wells.

## DEATHS.

BASSANO, MELINDA, younger daughter of the late Francis M. Bassano, Apothecary to H.M.'s Forces, at 3, Edith-terrace, Brompton, aged 44.

NORTON, JOHN HOWARD, M.D., at Nantglas, Llanelly, Carmarthenshire, on August 1, aged 50.

THOMSON, CAROLINE ELIZABETH, relict of Thomas Thomson, M.D., of Leamington, at Childs Encall Vicarage, Salop, on August 2, aged 66.

TRAILL, WILLIAM, M.D., third son of the late George Traill, of Holland, Orkney, at Shomness, Orkney, on July 21, aged 46.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DURHAM UNIVERSITY COLLEGES OF MEDICINE AND PHYSICAL SCIENCE, NEWCASTLE-ON-TYNE.—Professorship in Biology. Applications, with testimonials, to T. Wood Bunning, Esq., Secretary, before August 15.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, MANCHESTER.—Assistant-Physician. Must be duly qualified and registered. Applications to the Chairman, Gartside-street, Manchester, on or before August 22.

HANTS COUNTY ASYLUM.—Junior Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Manley, Knowle, Fareham, Hants, on or before August 18.

HULL GENERAL INFIRMARY.—Resident Assistant-Surgeon. Applications, with testimonials, to the Chairman, Henry Gibson, Esq., at the Infirmary, from whom further particulars may be obtained. The post will be vacant on September 1.

INVERNESS DISTRICT.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Aitken, Medical Superintendent, on or before August 19.

LIVERPOOL LADIES' CHARITY AND LYING-IN HOSPITAL. Medical Officer, North District. Applications, on or before August 10, to the Secretary.

MONMOUTH UNION.—Medical Officer for the Rockfield District.

Mullingar District Lunatic Asylum.—Visiting Physician. Applications, on or before August 13, to Dr. H. Berkeley, Resident Medical Superintendent.

Queen's Hospital, Birmingham.—Dispenser. Applications, on or before August 17, to the Secretary.

Royal Infirmary, Manchester.—House-Physician. Must be duly qualified and registered. Applications, with testimonials and diplomas, to the Chairman of the Weekly Board, on or before August 22.

Sheffield General Infirmary.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Medical Staff of the Infirmary, care of the Secretary, on or before August 11.

Stromness, Orkney.—Medical Officer. Applications, with testimonials, to Chairman of the Parochial Board, Stromness.

Wantage Union.—Medical Officer and Public Vaccinator for the Ilsley District.

Westray, Orkney.—Parochial Medical Officer. Applications, with testimonials, to Dr. Macpherson, Westray, Orkney.

West Ward Union, Westmoreland.—Medical Officer for the Patterdale District.

Witney Union.—Medical Officer for the Bampton No. 1 District.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

*Dursley Union.*—Mr. P. O'Connell O'Doyle has resigned the Third District; area 6410; population 2471; salary £80 per annum.

APPOINTMENTS.

*Bideford Union.*—Daniel King, M.R.C.S. Eng., L.S.A., to the Abbotsham District.

*Birkenhead Union.*—Wm. G. Laidlaw, M.D. and C.M. Glasg., to the Second District, the Workhouse, and the Schools.

*Burnley Union.*—Wm. Edwards, M.D., and M.C. Glasg., L.R.C.S. Edin., to the Habergham Eaves District.

*Hungerford Union.*—James Lidderdale, M.R.C.S. Eng., L.S.A., to the Great Bedwyn District.

*Manchester Township.*—Walter Needham, L.F.P. & S. Glasg., M.R.C.S. Eng., L.S.A., as Junior Assistant Medical Officer at the Workhouse Hospital.

*Tendring Union.*—John W. Cook, M.D. Aber., M.R.C.S. Eng., to the Great Bromley District.

*Weymouth Union.*—Wm. Hawkins, M.R.C.S. Eng., L.S.A., to the Abbotsbury District.

A public meeting has been held at the Peel Institution, Accrington, at which it was resolved to establish a provident dispensary.

The Fourth International Medical Congress at Brussels.—Agreeably to the resolution passed at the Congress held in Vienna in 1873, this Congress will open at Brussels under the auspices of the Government on September 19, 1875. All communications respecting it are to be addressed to Dr. Warlomont, 132, Rue Royale, Brussels.

Health of the Punjaub.—The Sanitary Commissioner of the Punjaub reports for the week ending the 6th ult. that there was a slight increase in the mortality of the Province: the total deaths have risen from 5995 to 6159. There were three deaths registered under the head of cholera—one at Firozpur in the Gurgáon district, one at Pihewah in the Ambálah district, and one at Simla; the last-mentioned later information shows to have been caused by a poisonous dose of arsenic instead of cholera. In this case the poison proved fatal in five hours. Arsenic in the large doses in which it is usually administered in this country for the purpose of poisoning, produces symptoms which closely resemble those of cholera. The total deaths from small-pox have risen from 521 to 551. The districts on this side of the Satlej continue to enjoy great comparative immunity from the disease: the districts of Ambálah and Karnál continue to suffer from it severely; and the disease shows a tendency to spread in the districts of Ludiánah and Firozpur. The following municipal towns are suffering severely from small-pox:—Dehli, Palwal, Bhiwáni, Karnál, Sháhábád, Sádhaurah. Deaths from the disease have occurred in the towns of Rewári, Rohtak, Hissár, Hansi, Sirsa, Kythal, Ambálah, Jagádhri, Lahore, Khushab, and Ráwalpindi. The total deaths at Dehli have decreased from 124 to 109, and the total deaths in Amritsar from 110 to 98.

## NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

*A Staff Surgeon, Dublin.*—Sir Charles McGrigor, the army agent, succeeded his father as second baronet. The first baronet was Director-General of the Army Medical Department for thirty-six years. There is a bust of him in Wellington College.

*H. M., Bournemouth.*—Dr. Erasmus Darwin was a "F.R.S." The lines will be found in the "Botanic Garden," Canto II.:—

"Onward he steps; disease and death retire;
And murmuring demons hate him and admire."

*Octogenarian.*—You will find full particulars in "A Strange Chapter in the History of Medicine," in Mr. Clarke's "Autobiographical Recollections," p. 155.

*A Member of the British Medical Association.*—If you fail in your attempt to communicate with your fellow-members through the journal of the Association, why not communicate with them *viva voce* at the coming meeting? We cannot open our pages to strictures upon the financial arrangements made for the management of the "so-called organ of the Association."

*Sigma.*— "Be thou as chaste as ice, as pure as snow,
Yet shalt thou not escape calumny."

*Amicus.*—A movement has been set on foot at Poona for the purpose of perpetuating the memory of the late Dr. Balkrishna Cheritoba. He practised as a surgeon in Poona for twenty years.

Perfect Prophylactic against Zymotic Disease.

*** It is so well known that all German observations in medical science are superior to observations of home growth, that we cannot too promptly comply with Herr Günther's request.

TO THE EDITOR OF THE MEDICAL TIMES, LONDON.

I have the honour to send you, dear Sir, as the result of my earnest observations the following remarks, requesting you to publish them in your Journal in the interest of public welfare and a general discussion.

Yours truly

Munich, July, 1874. Charles of Günther, Apothecary.

*Pandemic observations.*—The only rational and surely efficacious preservative for human beings in those acute diseases, which must be reduced to a sick blood (as Cholera morbus, Pest, yellow Fever) consists of a mixtion of substances after the following prescription:

R. Natri phenylici, Kali oxychlorici, Kali hypermanganic, āā partes aequales, Sulfuris crudi partes decem. Misceantur exactissime. Pulvis servetur in vitro bene clauso.

To be taken every morning a knife's point-full with a little rum or arack.

Every one who makes use of this remedy during epidemic diseases, will certainly be exempted from them.

To render this remedy accessible to every one without any expense, must be the task of governements, of medical and philanthropic clubs.

The reasons, which induce the undersigned to the before maintained assertion, are briefly developed in his pamphlet "Observations in judging contagious diseases" and we will give in the following lines the most important excerption:

a) The diseases before mentioned are principally based on a deficient supply of oxygen gas to the blood.

b) In case of illness the organism is highly supported in its resistence by an immediate and internal use of nitrous-oxyd gas (laughing gas) in its gaseous or absorbed condition.

c) Only the prophylactic impregnation of the body with antiseptic remedies and rich in oxygen gas preserves from contagion and hinders thus the best from farther propagation.

d) Till a complete and rationally executed canalisation of all places, in which an abundance of population is prevailing, the establishment of apparatuses, by which oxygen gas may be produced, in the lodgings of the poor, in the hospitals and public buildings must be wished for.

e) Prizes must be set out by the governement, in order to find out the simplest and cheapest methods of producing the oxygen gas.

f) Self-production of saltpetre on the surface of the earth, in the lodgings, on the walls, viz. the conditions of it, must be removed and prevented,

Munich July 1874. Charles of Günther, Apothecary.

Careless Quotations.

*Censor.*—No doubt there is a great deal of mis-quoting; have we not been told more than once in the *Times* that incorrect quoting is one of the sins of the day? But in the particular instance that calls forth your reproof, the quotation was perfectly correct. We admit that the reading you give is a very common one:—

"The man convinced against his will,
Is of the same opinion still."

But if you will turn to your Hudibras, part 3, Canto 3, you will find the lines as we gave them, viz.:—

"He that complies against his will,
Is of his own opinion still."

There's a world of difference between compliance and conviction.

*Bibliopole.*—The Library of the Royal College of Surgeons will be closed this year from the middle of August until October 1. Mr. Chatto, the indefatigable librarian, will give you the desired information.

*J. W., Southampton.*—In the patient of the late Mr. Jones, of Jersey, the scapula only was removed, leaving a useful arm. The preparation is in the Museum of the College of Surgeons.

*M.D., Barnstaple.*—The oration is now delivered in English. It was Sir George Baker who was opposed to the examination of candidates in English. He and Dr. Battie were censors at the same time. A physician presented himself for examination who confessed he did not understand Latin, and Battie was proceeding to examine in English, but Sir George Baker objected to this; and, upon Battie persisting, quitted the room, by which means the meeting was necessarily broken up, as the whole number of censors were required to be present.

*G. J. F.*—It is said that, about 1662, Van Roonhuyse recommended moxa as a remedy for the gout. Greatreaks the "Rubber" appeared about the same time.

*Hospital Reform.*—Dr. Rogers estimates the loss to poor-law medical officers from the out-patient departments in London at £50,000 a year.

*Griffith M.*—According to the census of 1871, the population of Warwick was 11,000. The total deaths registered in the borough in that year were 265, showing a death-rate of 24 per 1000. In 1872 the rate was 23 per 1000, and in 1873 it was 24·1 per 1000.

*L. M., London.*—Read Dr. Aveling on the subject. Some of the old pew arrangements in the parish church of Richmond, Surrey, made by the wardens are curious enough. Two women were particularly located "in regard of their occupations being midwives; and that Mr. Pyke and Mr. Piggot be seated in the gallery with Mrs. Wood." It is doubtful whether Messrs. Pyke, Piggot, and the widow were always so attentive to the discourse as they might have been.

*L.R.C.P. Lond.*—Sir George Burrows, Bart., is President of the College of Physicians. Sir Henry Halford, Bart., M.D. Oxon., was elected President of the College in 1820; Dr. Paris, M.D. Cantab., succeeded him in 1844; Dr. Mayo, M.D. Oxon., followed in 1857, and was succeeded by Sir Thomas Watson, Bart., M.D. Cantab., in 1862. Read Dr. Munk's "Roll of the College."

*Corrigenda.*—In page 138, second column, sixteenth line, *for* "£75" *read* "£70." In the list of candidates who were admitted members of the College of Surgeons on July 29, *for* "Joshua Powell, Newcastle-on-Tyne," *read* "Joshua Powell, Blaenbarran, Newcastle Emlyn, South Wales."

COMMUNICATIONS have been received from—

Dr. Boggs, Paris; Mr. R. Cunningham, London; Dr. Greenhow, London; Mr. Waren Tay, London; Mr. Norcliffe, Manchester; Mr. Farrant, London; Dr. Abrath, Sunderland; Mr. J. Fenn Clark, Leamington; The Registrar of the Apothecaries' Society; The Registrar of the College of Physicians; Mr. Camden; Dr. Pettigrew; Mr. A. Robins; Georgia; Dr. Whitmore, London; Dr. Finny, Dublin; Mr. Carnie; Mr. B. N. Hyatt, Shepton Mallet; Dr. Edis, London; Mr. G. Gaskoin, London; Dr. J. Braxton Hicks, London; Mr. Bader, London; Mr. J. Chatto, London; Mr. R. Davy.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Edinburgh Medical Journal—Monthly Microscopical Journal—Science Gossip—Canada Medical and Surgical Journal—Irish Hospital Gazette—Obstetrical Journal of Great Britain and Ireland—Bulletin Général de Thérapeutique—Gazette Hebdomadaire—Gazette des Hôpitaux—Allgemeine Wiener Medizinische Zeitung—Student's Journal and Hospital Gazette—The Practitioner, August—Indian Medical Gazette—Public Health—Melbourne Argus—Leeds Mercury—American Journal of the Medical Sciences, July.

BOOKS AND PAMPHLETS RECEIVED—

Minutes of the Meeting of the General Medical Council—Melaena der Neugeborenen nebst Bemerkungen über die Obliteration der fœtalen Wege, von Dr. L. Landau—Marcet on the Nutrition of Animal Tissues—Report of the Dublin Sanitary Association—Taylor on Poisoning by the Inhalation of Coal Gas—Report on the Health of the Borough of Birmingham—Comets, and the New Comet of 1874—St. Thomas's Hospital Reports, vol. iv.—North's Report with Reference to the Water-Supply of York—Phillips's Materia Medica—Twenty-eighth Report of the Commissioners in Lunacy to the Lord Chancellor—Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques, vol. xix.—Foster on Physiology.

## APPOINTMENTS FOR THE WEEK.

*August* 8. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

10. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

11. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

12. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

13. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

14. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, August* 1.

### BIRTHS.

Births of Boys, 1185; Girls, 1142; Total, 2327.
Average of 10 corresponding years 1864-73, 2070·5.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 846 | 805 | 1651 |
| Average of the ten years 1864-73 | 867·4 | 819·7 | 1687·1 |
| Average corrected to increased population | ... | ... | 1856 |
| Deaths of people aged 80 and upwards | ... | ... | 32 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 1 | 1 | 1 | 2 | ... | 4 | ... | 53 |
| North ... ... | 751729 | ... | 8 | 12 | 3 | 1 | 1 | 2 | 1 | 94 |
| Central ... | 334369 | ... | 2 | 5 | ... | 2 | ... | 1 | ... | 32 |
| East ... ... | 639111 | 1 | 1 | 18 | ... | 5 | 1 | 3 | 3 | 79 |
| South ... ... | 967692 | 1 | 2 | 5 | 4 | 4 | 5 | 2 | 4 | 107 |
| Total ... ... | 3254260 | 2 | 14 | 41 | 8 | 14 | 7 | 12 | 8 | 365 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·651 in. |
| Mean temperature | 61·2° |
| Highest point of thermometer | 78·7° |
| Lowest point of thermometer | 48·7° |
| Mean dew-point temperature | 55·9° |
| General direction of wind | W.S.W. & S.W. |
| Whole amount of rain in the week | 1·00 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 1, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Aug. 1. | Deaths Registered during the week ending Aug. 1. | Temperature of Air (Fahr.): Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.): Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2327 | 1651 | 78·7 | 43·7 | 61·2 | 16·22 | 1·00 | 2·54 |
| Portsmouth ... | 120436 | 26·8 | 78 | 56 | ... | ... | ... | ... | 0·50 | 1·27 |
| Norwich ... ... | 82257 | 11·0 | 47 | 37 | 77·5 | 50·0 | 61·1 | 16·17 | 0·31 | 0·79 |
| Bristol ... ... | 192889 | 43·3 | 114 | 73 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 54 | 33 | 76·9 | 51·1 | 60·7 | 15·94 | 0·92 | 2·34 |
| Birmingham ... | 360892 | 43·0 | 271 | 252 | 73·0 | 52·2 | 60·3 | 15·72 | 0·53 | 1·35 |
| Leicester ... ... | 106202 | 33·2 | 106 | 94 | ... | ... | ... | ... | ... | ... |
| Nottingham ... | 90894 | 45·5 | 63 | 64 | 74·1 | 45·0 | 59·9 | 15·50 | 0·23 | 0·58 |
| Liverpool ... ... | 510640 | 98·0 | 425 | 409 | 68·1 | 53·2 | 59·5 | 15·28 | 0·21 | 0·53 |
| Manchester ... | 355339 | 82·8 | 285 | 244 | 73·0 | 49·0 | 59·7 | 15·39 | 0·12 | 0·30 |
| Salford ... ... | 133068 | 25·7 | 119 | 90 | 71·4 | 46·2 | 57·9 | 14·39 | 0·28 | 0·71 |
| Oldham ... ... | 86281 | 18·5 | 81 | 44 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 109 | 100 | 71·7 | 54·1 | 59·6 | 15·33 | 0·78 | 1·98 |
| Leeds ... ... | 278798 | 12·9 | 239 | 191 | 73·0 | 48·0 | 59·4 | 15·22 | 0·97 | 2·46 |
| Sheffield ... ... | 261029 | 13·3 | 216 | 188 | 73·5 | 47·0 | 60·2 | 15·66 | 0·17 | 0·43 |
| Hull ... ... ... | 130996 | 36·0 | 95 | 61 | ... | ... | ... | ... | ... | ... |
| Sunderland ... | 104378 | 31·6 | 94 | 51 | 75·0 | 51·5 | 61·9 | 16·61 | 0·26 | 0·66 |
| Newcastle-on-Tyne | 135437 | 25·2 | 92 | 89 | 66·0 | 52·0 | 56·8 | 13·78 | 1·89 | 4·80 |
| Edinburgh ... ... | 211691 | 47·8 | 145 | 90 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 392 | 316 | 69·2 | 48·1 | 58·1 | 14·50 | 0·66 | 1·52 |
| Dublin ... ... | 314666 | 31·3 | 178 | 141 | 74·4 | 41·0 | 60·0 | 15·56 | 0·28 | 0·71 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5530 | 4274 | 78·7 | 41·0 | 59·8 | 15·44 | 0·57 | 1·45 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·65 in. The lowest was 29·46 in. on Tuesday afternoon, and the highest 29·90 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

## ORIGINAL COMMUNICATIONS.

# ON ANEURISM OF THE AORTA.

CASE ILLUSTRATING ITS SPECIAL DIAGNOSTIC FEATURES, AND SUCCESSFUL TREATMENT BY LARGE DOSES OF IODIDE OF POTASSIUM.

By LEWIS SHAPTER, B.A., M.B. Cantab.,
Physician to the Devon and Exeter Hospital.

T. T., a commercial traveller, aged sixty, was admitted into the Devon and Exeter Hospital on February 13, complaining of shortness of breath and paroxysmal lancinating pain in the front of the chest, often of such severity at night as to oblige him to turn on his face and hands to obtain even snatches of sleep. Beyond leading an intemperate life the previous history is unimportant, but his occupation has necessitated the constant lifting of heavy weights; the commencement of the present illness being referred to a special occasion about nine months ago, when, after some great exertion, the dyspnœa and pain in the chest became marked, and have since continued to increase. Upon examination, a pulsating tumour was detected between the second and third right ribs, near their cartilages, characterised, both visibly and to the sense of touch, by a decided "to-and-fro jogging" impulse, and giving an area of percussion dulness which extended for a distance transversely of three inches and a half from the right edge of the sternum, and was bounded above and below by the upper borders of the second and third ribs, with their cartilages respectively. Upon auscultation over the area of impulse the first sound was indistinct and feeble, but unaccompanied by murmur, whilst the second was characterised by a loud ringing accentuation, the point of greatest intensity being over the most prominent part of the tumour, a spot immediately below the second rib, and one inch from the right edge of the sternum. Outside the previously described area of dulness the second sound perceptibly lost its peculiar characteristics: the comparative freedom from all accentuation of sound in the pulmonary artery offering a striking contrast to its existence in the aorta. The apex-beat was indistinctly felt between the fifth and sixth ribs, a little to the right of the nipple, over which spot the first sound appeared somewhat muffled and prolonged; but in no region of the heart or in any part of the tumour has any bruit been audible at any period of observation of the case. The pulse was smaller and more feeble in the right radial than the left; pupils natural; voice slightly tremulous, hoarse, and stridulous; breathing short and laborious; and considerable pain was manifested on the least exertion. The other organs and systems of the body were healthy, with the exception of the existence of harsh breathing in the right infra-clavicular region, probably due to collateral hyperæmia, the result of the outward pressure of the tumour on the lung.

The treatment comprised rest in the recumbent posture, and the administration of half-drachm doses of the iodide of potassium, combined with spt. ammon. arom. ℥xx., and dec. cinchonæ, freely diluted, three, and after the first week, four times a day; the tumour to be painted at intervals with iodine; and chloral hydrate gr. xxv. to be taken at night, chiefly with the intention of checking iodism. The chloral had, however, soon to be discontinued, owing to the occurrence of an acute pseudo-rheumatic affection of the right knee, ascribable to the use of the drug. The hypodermic injection of morphia was then occasionally resorted to, but upon March 5 (three weeks after admission) the following note was taken:—Pulsation less marked, and of a firmer, more resistant feel; transverse boundary of impulse diminished by one inch, and no pulsation to be felt above the upper border of the second rib; accentuation of aortic second sound diminished in intensity; complains of only slight pain, unattended by spasm; sleeps well at night without any narcotic; and shortness of breath considerably relieved. No special restrictions have, at any time, been placed on his diet, with the exception of limiting the amount of fluid taken during the twenty-four hours to as small a quantity as possible without causing inconvenience.

The improvement in the condition of the tumour and in the patient's general health continued to be uninterrupted and progressive up to May 27, the date of his discharge; and notwithstanding the fact of his having taken two drachms of the iodide daily for upwards of three months, only upon one occasion did slight gastro-intestinal irritation (which was quickly relieved by a moderate purge) indicate any ill effects from the use of the drug. At the time of the patient's discharge from the hospital, the pulsation had become scarcely perceptible, having lost its to-and-fro jogging character, and giving the sensation of a transmitted rather than of a direct impulse. The accentuation of the aortic second was free from its sharp ringing sound, and was much diminished in intensity. No pain, no hoarseness of voice, and little or no shortness of breath remained. The man, indeed, had for some weeks ceased to consider himself an invalid, not having, as he said, been so well for years, and on this account he could not be persuaded to submit to further treatment. Although, therefore, it is impossible to regard this as a curative result, from so short a trial of treatment, yet it offers at any rate a remarkable instance of the successful results which may be expected to be attained from the free use of the iodide in cases of aortic aneurism, both as regards the prominent symptoms of the affection, and also the condition of the disease itself. And since we owe the introduction of the use of the drug in aneurism to the result of accident rather than to the progress of any scientific inquiry, its generally recognised value can perhaps only be ultimately established empirically, by the accumulation of recorded cases respecting its successful or unsuccessful operation.

In briefly considering, however, the diagnostic features of the case already related, the absence of all murmur and the existence of the markedly accentuated aortic second sound would appear worthy of observation as a phenomenon of more constant occurrence than is usually admitted. Remembering, indeed, the extreme frequency of the absence of all bruit in cases of aortic aneurism, it would appear reasonable to conclude that its occurrence must of necessity be associated with some accidental mechanical condition of the sac, heart, or contiguous vessels—such, for example, as roughening of the orifice of the sac or aorta,—which, whether permanent or temporary, would sufficiently account for its occasional manifestation, and so reduce to a minimum the diagnostic value of such a fluctuating sign as murmur: a sign which probably owes its general recognition as reliable, rather to the striking character of the phenomenon when present, than to any determined frequency of occurrence.

Upon these grounds alone, therefore, it becomes unnecessary to enter into detail respecting the varied views which seek to refer such well-marked and audible sounds to the uncomplicated state of the aneurismal sac-wall or its contents. Suffice it to say that (1) the abnormal condition of the portion of the vessel, the subject of the aneurismal sac, unable, as it must be, to resist, much less to remit with any force, the constant blood-flow; (2) the intensity of the diastolic sound as compared with the diastolic impulse; and (3) the extreme similarity between the sounds of aneurism of the arch and the sounds of the heart itself, appear of themselves sufficient to disprove the necessity of ascribing any special sound-producing power whatever to the aneurismal tumour, whether in part or as a whole. Whilst as to the theories separately considered—whether we look, for instance, to the production of murmur as ascribed to the supposed friction against the orifices or parietes of the sac, or to the formation of vibrating eddies in the blood-flow, or to some elastic yielding condition capable of producing irregular and reciprocal motion,—in each and every instance we have presented to us for acceptance that which must of necessity be a more or less constant state, as explaining an occasional and frequently absent phenomenon, and which in consequence acquires but little support when submitted to any general and practical test.

We may pass on, then, from regarding the occurrence of murmur as a purely incidental phenomenon, unconnected with the ordinary structural formation of a sacculated aneurism, to the consideration of the accentuation of the aortic second sound, which, when existent (without the occurrence of any cardiac lesion with which it may be associated), must be taken as indicative, not only of dilatation of the aorta, but also of the necessary competency of the aortic valves; and when present in any position but over the immediate region of the heart and main vessel, as offering one of the essential characteristics of an aneurismal tumour. Dr. Warburton Begbie, who first drew attention to the special and more or less constant diagnostic significance of this sign (*Edinburgh Medical Journal*, June, 1863), has briefly stated the position of the case as follows:—"Excluding," he says, "the accentuated pulmonary second sound, and the intensified aortic second sound, in some cases of

hypertrophy and dilatation of the left ventricle, the accentuated second iu the aorta is an indication of aortic aneurism, or of dilatation of the aorta associated with atheromatous degeneration. If it be the former, the aneurism probably does not arise within the pericardium, and probably does not affect the ascending portion of the arch, but has most likely its seat in the transverse portion; it may, however, arise at the earlier portion of the aorta." In the case under obscrvation, this sign was peculiarly well marked, the diastolic sound being of a loud, pure, ringing character, and more distinctly audible over the sac than over the normal position of the valve-sounds themselves; whilst as the consolidation of the sac-wall increased, it became interesting to note that the peculiar character of the accentuation became gradually diminished in intensity, thereby affording another mcans of estimating the progressive improvement that other evidence clearly indicated was taking place.

The mode of production of this abnormally distinct second aortic sound is clearly referable to the abnormal distension and strained condition of the arterial coats contiguous to and forming the sac-wall, and consequently to the increased pressure to which the aortic valves are subjected from the greater and more ponderous column of blood contained in them. For if in all cases, for example, where the circulation of the lungs is overloaded and the pulmonary artery is necessarily distended, the strength of the second sound is as a consequence audibly incrcased over the pulmonary artery; this result is plainly due to the greater power with which the distended arterial walls press upon the larger volume of blood contained in them, and so increasc the shock of the blood-column against the semilunar valves. Upon the application of the same principle it becomes equally possible to explain a similar intensification of sound from the aortic valves; and as in dilatation and in aneurism of the aorta not only are the elements at hand for accentuating sound, but as, moreover, the shock which the valves (perhaps thickened and more capable of offering resistance), suffer can be communicated to the distended arterial and sac-walls, a means is thereby introduced of conducting, and even of intensifying, the already accentuated sound until it has reached the most superficial portion of the tumour.

With respect, in conclusion, to thc trcatment of aneurism by the use of large doses of the iodide, Dr. G. W. Balfour has been led to conclude, from the results of post-mortem examinations, verifying his previous observations, that "relief is obtained, not by clot-formation, but by contraction and condensation of the sac; and that if coagulation takes place within it at all, it plays a comparatively unimportant part, depends upon the remora of blood, and seems in no respect to be due to the action of the iodide of potassium."

Consolidation of the sac, therefore, by means of the formation of clots through therapeutic agency, cannot be expected or even hoped for; and when the contiguity of thc sac to the mainspring of the circulation is taken into consideration—this sac being expected to contain not firm laminated and fibrinated masses lining and protecting the sac, and probably resulting from an inflamed or roughened condition of the adjacent wall; but rather loose and partially formed clots, gradually increasing in size and firmness, and portions of which are liable at any moment to be carried into the current of the circulation—any method of treatment, with such an object in view, can perhaps hardly be regarded as judicious, or of service to the ultimate consolidation of the sac. Clot-formation to be really effective in aortic aneurism must probably be spontaneous—an extremely rare and almost inconceivable event.

The question, however, suggests itself, whether therc is any reasonable ground for placing absolute reliance upon the largeness of the dose of the iodide, beyond the fact that little or no effect has usually been produced by the use of small doses? Now, although one of the chief and most manifest of the characteristics of the action of iodine is its modification of the circulation, it would appear to have no direct action upon the composition of the blood, neither producing hyp- nor hyperi-nosis; but it modifies the action of the heart, and in its physiological effects undoubtedly produces dilatation of the smaller bloodvessels, or hyperæmia of the various tissues and organs of the body. Such effects of the action of iodine are evidenced, for example, in the occurrence of catarrhal symptoms, or in the increased activity of most of the secreting and excreting organs, producing, it may be, salivation, or very commonly such instantaneous diuresis that the presence of iodine may be readily detected in the urine almost immediately after the drug has been taken. This rapid elimination of the iodide whilst the circulation of the blood is accelerated, explains, according to Professor Sée, the absence of iodism when the drug has been taken in considcrable quautity, aud warns us of the absolute necessity of giving large and increasing, and frequently repeated doses in all cases where its continued and full effects are considered absolutely essential. But it can hardly also be doubted that the iodide in large doses exerts a sedative influence over the nervous system: it allays pain, whether purely neuralgic or rheumatic in origin, in a manner similar to the bromide; and its action must probably be ascribed in the first place to an altered condition of nervous action, the result of the modification in the circulation; and in the second place to a special influence exerted over thc nervous substance itself, in a manner favourable to the regeneration of the nervous elements.

The conclusions, therefore, to which I would venture to direct attention as the outcome of the foregoing remarks may be briefly enumerated as follows:—1. Murmur is of little or no diagnostic value in aortic aneurism, but must be regarded as a purely accidental phenomenon. 2. Accentuation of the aortic second sound, as the result of the specially altered condition of the vessel, and as present in any position but over the immediate neighbourhood of the heart and aorta, is characteristic of aneurism. 3. The treatment, whether curative or symptomatic, upon which most reliance must bc placed, consists in the administration of large and frequently repeated doses of the iodide of potassium, accompanied with rest. 4. The iodide acts by consolidating and thickeniug the aneurismal sac-wall, and not by any process of clot-formation. 5. This special function of the drug is probably aided by the sedative action exerted on the nervous system, allaying pain, and possibly rendering the sac less yielding to impressions.

*Insidious Effects of Chloral.*—Additional interest is attached to the case previously related as pointiug to some of the ill effects liable to occur from the use of chloral hydratc. Twenty-five grains of chloral were ordered, on the patient's admission, to be taken every night; but upon the fourth day my attention was drawn to what appeared to be an acute rheumatic affection of the right knee, accompanied with pain, great tenderness on pressure, local heat and swelling, and a slight inflammatory blush. The chloral was at first ordered to be continued, partly with the object of not being too hasty in referring the symptoms to its use; but eventually the resistance to local treatment, aud the rapid subsidence of the affection as an immediate consequence of the discontinuance of the drug, offered sufficient proof of the cause and origin of the occurrencc.

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Gratifying Presentation.—At the monthly meeting of the Board of Directors of the St. Marylebonc General Dispensary, held on August 5 (Richard Davy, Esq., in the chair), a deputation from the St. Marylebone tradesmen was received, in order that Mr. Hanley might hand over to the treasurer of the dispensary a chcque for £100, as a first instalment of a voluntary effort on the part of the St. Marylebone tradesmen to benefit this old and valuable charity. The deputation, having in well-chosen phrases stated their reasons for voluntarily presenting a cheque of £100 to the institution, announced that the gift was but a prelude to further assistance. Mr. Davy, on behalf of the Board of Management, expressed their hearty thanks for so welcome and opportunc a contribution to the funds of the charity.

Guy's Hospital.—The following is the list of medallists and prizemen for 1873-74:—The Treasurer's Gold Medal for Medicine, Daniel Herbert Forty, Shillingford, Wallingford. The Treasurer's Gold Medal for Surgery, William Henry Harsant, Epsom, Surrey. Third Year's Students—H. F. Lancaster, Southsea, Hants, First Prize, £40; W. E. Snook, Colyton, Devonshire, Second Prize, £35; H. Caddy, Ulverston, Lancashire, Certificate; St. Clair B. Shadwell, Walthamstow, Certificate; W. Cock, Redruth, Cornwall, Certificate. Second Year's Students—John Brett, London, and W. P. Reynolds, Dulwich (equal), £32 10s. each; R. Bevan, Redruth, Cornwall, *Proxime Accessit*, Certificate; B. W. Gathergood, Torrington St. John, Lyme Regis, Certificate; J. B. Waterhouse, Isle of Wight, Certificate. First Year's Students—J. W. Meek, Macclesfield, and H. Davy, Ottery St. Mary, Devon (equal), £27 10s. each; P. Horrocks, Farnworth, near Bolton, Lancashire, Third Prize, £10 10s. (*presented by one of the Governors*); J. T. Hinton, Croydon, Certificate; J. Poland, Blackheath, Certificate.

# FORTY-SECOND MEETING
OF THE
# BRITISH MEDICAL ASSOCIATION,
HELD AT NORWICH ON AUGUST 11, 12, AND 13, 1874.

## PRESIDENT'S ADDRESS.

By EDWARD COPEMAN, M.D.,
Senior Physician to the Norfolk and Norwich Hospital.

GENTLEMEN,—The experience of the last few years has amply proved that the difficulty of presenting a suitable address at an annual meeting of this Association increases with the increase of the Society; although it must be acknowledged that this fact has been a great stimulus to exertion, and that the efforts of late Presidents have been attended with a considerable amount of success. Still all have felt, if we may judge from their expressions, that it is no mean task to compose an address which may satisfy the expectations of so large a number of intellectual and talented men as generally assemble on these occasions.

I know it is often looked upon as a mere matter of formality to plead incapacity for so responsible an undertaking; but I can most honestly assert that I have experienced very serious misgivings not only as to my power of writing a proper and interesting address, but also as to my capacity for performing all the onerous duties attaching to the presidency of this great and important Association. When the Association numbered only 1500 members, the President of the day remarked upon the giddy height at which he was placed, and even then dreaded a fall; how much more must I, without half his nerve and daring, contemplate my position with dismay, lest I should fail to prove myself worthy of the very great honour which you have in your kindness imposed upon me! Gentlemen, I promise faithfully to do the best I can for the furtherance of the interests of our Society, and, as a very old member of it, I claim, and am sure I shall receive, your willing and valuable support. And now, before I proceed further to occupy your attention, let me say, in the name of my professional colleagues and neighbours, as well as of myself, that we feel much honoured by your presence, and shall be most happy to do everything in our power to render your visit to our old city pleasant and agreeable.

Our country was not in former times favourably circumstanced for the promotion of social intercourse with other parts of the kingdom; before the introduction of railways, there was much difficulty in reaching our corner of England; and had it not been for partridges and a well-acknowledged hospitality towards friends and relations, we should have been left very much to our own devices, and obliged to rely upon our own resources for instruction and amusement. But Norfolk has produced great, very great men in all the marked positions of life. We can boast of our Nelson, to whose memory a statue has been erected in the Cathedral-close, opposite to the school in which he was educated; and several of his trophies are preserved in this city, and will be open to your view. I could mention, also, several other names belonging to Norfolk who have conspicuously distinguished themselves in the naval service of their country.

In the Church we have had many bishops of renown, including Dr. Richard Corbet, of humorous memory. The most prominent of the bishops of former times was Losinga, who established the see at Norwich and founded the Cathedral, 1094; William Bateman, who was bishop in 1343, was a native of Norwich, and founded Trinity Hall, Cambridge; after the Reformation, many men of note occupied the bishopric, one of them being Dr. Matthew Wren, father of the celebrated architect, Sir Christopher Wren; Charles Trimmell, D.D., was a native of Norwich, and greatly assisted the Protestant emigrants who fled to his diocese from the Palatinate on the Rhine to escape the exactions of the French. Many of these were artisans, and greatly increased the general welfare of the city and county. Dr. George Horne, the talented author of a "Commentary on the Psalms," was Bishop of Norwich in 1790; and in the present century we have had for bishops the Right Hon. C. M. Sutton, translated to the Archbishopric of Canterbury, Drs. Bathurst, Edward Stanley, Samuel Hinds, and our present most worthy Bishop, the Hon. J. T. Pelham, who was installed at the Cathedral Church in this city on June 26, 1857, and has since won for himself the love and respect of all with whom he has to do. His unavoidable absence from Norwich at the present time is a subject of much regret and disappointment. The learned Porson was born at East Ruston in Norfolk; I was acquainted with his sister, who devoted much of the latter years of a very useful life to works of charity, and died at a mature age, beloved and respected by all who had the privilege of her acquaintance. As philanthropists, we can boast of the Buxtons, Gurneys, Mrs. Fry, Mrs. Opie (the daughter of a Norwich physician), and others whose names would be familiar to you. But I must not occupy your time further by enumerating the names of persons of note belonging to this country, save of those connected with our own profession. The celebrated Sir Thomas Browne was a Norwich physician; we have his portrait in the board-room of our hospital, and his skull in our hospital museum. The eccentric Dr. Messenger Monsey was the son of a Norfolk clergyman, and well known as Sir Robert Walpole's Norfolk doctor. The Aldersons are a Norfolk family; the Baron was born at Yarmouth, and one of them practised here as a physician. Dr. John Kaye, or Caius, of Cambridge notoriety, was born in Norwich in 1510. The late Mr. Martineau was surgeon to our hospital for many years, and was regarded as one of the greatest lithotomists of his day; and I may add the names of Rigby, Dalrymple, Lubbock, and Crosse, the last having been one of the foremost of provincial surgeons and one of the founders of this Association.

The manufactures of our city differ in many respects from those for which in olden times Norwich was renowned; and "the sound of the shuttle and the hum of the spinning-wheel," formerly audible in every street in the city and surrounding villages, are seldom heard. But still, at the present day, Norwich is an important manufacturing city. Crape is extensively and beautifully made by a large firm here; mustard and starch of the finest description are produced on a very large scale by Messrs. Colman, a firm, I need scarcely remind you, that has literally a world-wide reputation, and whose factory, I am happy to say, will be open to the view of those who may desire to avail themselves of the opportunity. The boot and shoe trade is also very active in this city, and some of the establishments are well worthy of inspection. Our specimens of antiquity are numerous, and there is much to be seen in Norwich to gratify the taste of the antiquarian. We have a fine old castle, and a noble cathedral, very beautiful of its kind, the peculiarities and interesting characters of which my friend Mr. Symonds (our late Precentor, and brother of the late Dr. Symonds, of Bristol) has kindly offered to demonstrate to all visitors interested in the subject. For those who are fond of natural history, we can offer for inspection a remarkably complete collection of British and foreign birds, as well as many other objects of interest in our public museum. And last, though to our profession not least, we have a noble provincial hospital, more than one hundred years old, containing a museum in which are displayed all the stones removed by operation since its foundation, as well as many unique specimens of morbid anatomy. The wards are large and handsomely appointed, and you may have an opportunity of witnessing some Norwich operative surgery.

We have no complete medical school in Norwich, not having a sufficient number of pupils to educate; but lectures are given by the physicians, and clinical instruction by the surgeons. Our hospital practice is recognised by all the principal examining bodies, and our Norwich students gain an amount of useful elementary knowledge, which enables them to compete successfully with others in examinations in London and elsewhere. Many who commenced their professional studies in Norwich have risen to considerable eminence in after-life, and several of our hospital pupils have recently gained very high prizes in the London University and schools. I think it must be admitted that provincial schools are capable of imparting an amount of useful knowledge in early professional life which forms a good preparation for future study in London; and that, although they cannot be expected to compete with the metropolitan, they should, nevertheless, be encouraged for the good they do in preparatory education, at a period of life when it may not be wise to place young men upon their own resources in a metropolis, and separate them from their parents and other family influences in so early a stage of their career.

Speaking of our hospital, it may not be out of place to refer briefly to a disease which, for the last year or two, has occasionally marred the surgical success usually belonging to that excellent institution. I allude to the frequent occurrence of

pyæmia after surgical operations, compared with what I remember in any former period of my long connexion with the hospital. I am not going to discuss the question now, as I hope it will be thoroughly ventilated and commented upon in the surgical section; but it is a very interesting subject to us all, and, from its apparent analogy to certain puerperal conditions, it is especially so to general practitioners, whose time is always much occupied with obstetric engagements, where failure is most distressing, and often detrimental to professional success in life. It fortunately happens that such occurrences, both in surgery and midwifery, are rare in country districts, unless there be some very evident local cause to produce them, coupled with wilful neglect of the ordinary rules of hygiene; and although, with respect to surgery, the country surgeon, with his less frequent opportunities of exercising his hand and becoming familiar with surgical operations, can scarcely hope to acquire the sound judgment, confidence in his own powers, and the manual dexterity of the hospital surgeon; yet, with a good education, and the possession of a fair amount of skill and knowledge, he may be encouraged by the fact that the condition of his patient under operation or accident, with a body refreshed by country air, and a mind cheered by the presence and kind attention of relations and friends, will be favourable to success, and the result will reward him for the anxiety with which he may have undertaken the management of an important surgical disease.

These remarks naturally lead to the consideration of the prevention of blood-poisoning and the diseases consequent thereon; and there can be little doubt but that the principal agents in favouring their occurrence are contaminated air and impure water. The subtle elements of this class of diseases, whatever they may be, find their entrance into the body by means of one or other of these agents; and, taking this for granted, it would seem that we ought not to encounter any insuperable difficulties in our endeavours to prevent them. But, although we are continually in one way or another attempting to accomplish this desirable end, we are, nevertheless, often meeting with disappointment. The question arises, are our efforts sufficiently combined and long continued to accomplish our object, or are we mistaken as to the proper means to adopt? Some are strongly of opinion that contaminated water is the principal medium of contagion; others that air impregnated with injurious substances is the most to blame. I believe that both are equally concerned in the matter; that water is often the recipient of morbific influences contained in the air, and thus conveys the germs of serious disease into the human body; and, *vice versâ*, that contaminated water may poison the atmosphere and cause disease in those who breathe it. It also appears to me that some diseases are propagated chiefly by the water we drink, and others by the air we breathe; and I would mention cholera as an example of the former, and scarlet fever of the latter.

The subject is one of paramount interest to us as a profession, and I venture to bring before you one or two facts in practice to exemplify its importance. In August, 1871, I was requested by a board of guardians in this county to visit a parish in which several deaths had occurred suddenly in a family, and to report to the board my opinion as to the cause and nature of the invasion. The request came by telegram, showing the urgency of the case. The medical officer of the district was summoned to meet me, but circumstances prevented his doing so, and I had not the benefit of his assistance. It was satisfactory, however, that after the carrying out of the measures recommended to the board, the disease made no further progress. I first visited a cottage, where the husband, three daughters, and one son had died within a few days, and a girl sixteen years of age, and a boy of nine years, were labouring under diphtheria; both were represented to me as better than they had been, but I thought the boy in great danger, and in a few hours he was dead. Under the same roof, but not in the same dwelling, there was a boy, nine years of age, with a severe attack of measles; four other children belonging to this family had very properly been sent away from home when the disease broke out next door. On inspecting the premises, I found a well near the back door without any cover to it, into which the children were in the habit of throwing all sorts of things, and out of which a chicken in a putrid state had been taken a few days before. At the bottom of the small garden was a privy used by all the inmates of the double tenement, and in a state well suited to propagate and intensify any fever under which those residing in the cottages might be suffering. It was very small, with an open space behind for the reception of the soil, covered only by a few sticks; and the stench from it was abominable. Moreover, it was only a few yards from the well, and could thus readily contaminate the water which was used for drinking purposes. I next went to a cottage situated at some distance from the other, where there was one child dead and another ill; and I should mention that one of these children had had communication with the cottages and children before mentioned. But here, again, there was an open well, and near it a privy as foul and offensive as the one I have described. I brought home some water from the first well, and found that it contained sewage-matter, rendering it unfit for use. I recommended that the privies be provided with proper bins, with lifting covers to admit the introduction of fresh mould or disinfecting powder to cover the soil; to have the wells covered so as to prevent the children from throwing improper things into them, as well as for the safety of the children themselves; to furnish the inhabitants with plenty of proper disinfecting powder, to keep them well supplied with good wholesome food, and to thoroughly cleanse and whitewash the cottages. This, gentlemen, I quote as an instance of a disease primarily of a mild character (imported into the locality by a daughter who came home from service with a sore throat), aggravated into malignancy by water poisoned by the sources I have pointed out as existing at the time. I will now take leave to adduce another serious instance of a disease becoming suddenly virulent owing to local circumstances, and probably depending more upon contaminated air than water. I have a very strong impression on my own mind that contagion in such cases is chiefly conveyed through the excreta of the invalid; and whether by water or air, will depend upon the peculiar circumstances connected with the locality.

The village in which the following occurrences took place was at the time healthy; there was no fever in the neighbourhood, and the house was a recently built parsonage of good dimensions, and placed on an apparently unexceptionable site. There was a water-closet within the house, well supplied with water from a large tank, its waste-pipe leading into a capacious well-glazed drain just outside the house, which carried its contents underground a long way off, into a ditch too far removed to be hurtful. But there were also two privies with open arches, through which their contents passed into an oblong square dirt-bin, situated very near the back door of the house, and a very few feet from the large drain above mentioned, which might easily have been used for the purpose of carrying all the refuse of these privies, as well as of the water-closet, to a safe distance from the house. Unfortunately, this very obvious and desirable arrangement was overlooked by the builder; and, as one of these privies was used for the conveyance of all slops, etc., from the house, this bin, into which both fluid and solid refuse was admitted, was often very offensive. The family residing in the house consisted of the clergyman himself, his mother, his wife, six children (the eldest being about fourteen years old), and several servants. The second son had been at school in a market town many miles off; but scarlet fever broke out there, and he was sent home. On his journey he became chilly and faint, reached home with difficulty, and then exhibited the usual symptoms of scarlet fever in a mild form, and recovered. Soon afterwards, two of the other children and a servant took the fever, and in less than a week all three died. On January 20, I received the following note from the husband, the first intimation I had of what was going on:—"I have lost two children and a servant by scarlet fever during the past week, and my wife is now attacked by it. The surgeon says she has no unfavourable symptoms, but I should like much for you to come over by an early train to-morrow." This was written on Sunday, January 19, and, just as I was starting by train on Monday morning, I received another summons by telegraph. The distance was too great for me to arrive before the afternoon, and ere I got to the house I was told that the wife was also dead. On my arrival, a hearse was standing at the door containing the servant's coffin, and they were bringing a child's coffin out of the hall-door, to proceed with the other to the church for interment. The wife was lying dead on her bed; she had been dead an hour or two—a victim to the laryngeal form of the disease. The day before, she had a bright eruption, and seemed to be going on well; but afterwards lost her voice, and died suffocated. I was then asked to see another child, seized with the fever that very morning—a nice intelligent little boy of about six years of age. He was quite sensible, but pallid, cold, and complaining of pain in one side of his

throat. The right tonsil was inflamed, but he could swallow, and took whey freely. His countenance bespoke the existence of a deadly poison in his blood; his pulse was very feeble, and, although he was kept near a fire, was covered with warm blankets, and had hot bottles to his feet, he remained cold and in a state of collapse. We applied turpentine round his throat, which he said relieved him; and, when I left in the evening, he was a little warmer, but I expressed my firm conviction that he was in great danger. The next evening, just in time for me to start by the mail train, I received the following telegram:—"The little boy is dead; the eldest son is taken; please to come by the first train." I arrived in the middle of the night, and found the eldest son sickening; but fortunately they had followed my advice to remove him to another house a few hundred yards from the parsonage. I stayed all night; and he was not worse in the morning, having neither eruption or sore throat, although occasionally sick. He went through a mild form of the disease, and recovered. Our next care was to empty the parsonage-house, destroy all stained linen, and remove the remaining inmates to a distance at the sea-side; for the double purpose of removing them from the poisonous locality, and of taking immediate and decided steps to cleanse and purify what might be fairly termed a pest-house. We are unavoidably doomed, as a profession, to witness many sad scenes of misery and distress—scenes which harrow the feelings, depress the mind and spirits, and sadly tax both the inner and the outer man; but of all such that I have witnessed in a long professional life, nothing so awful or overwhelming can I remember as this sudden destruction of five members of a family in a respectable sphere of life, living in a healthy district, in a house not more than two years old, and with all the comforts about them which, in most instances, tend to insure security against the inroads of epidemic disease. What could have imparted such malignancy to a disease not virulent nor fatal to any great extent in the district in which it originated? The first child attacked had it in a mild form, and recovered; but some local cause, propitious to the concentration of the poison essential to the disease, quickly rendered it as pestiferous as the plague, and brought sudden sorrow and calamity into a household previously healthy, and little expecting so dreadful a visitation.

This local cause I believe to have been the exposure of the excretions of the sick in the bin before described, where, mixed with other refuse, both animal and vegetable, and water, they imparted to the exhalations arising from the whole a virulence so intense as to be almost suddenly fatal to those who were subjected to its influence. Had it not been for the sad oversight of not leading the contents of the privies into a capacious drain close by, made, as it were, for the very purpose, possibly all these lives might have been saved; and this frightful catastrophe conveys a most serious warning to all who have the management and superintendence of the erection of residences, not to incur the danger of neglecting so obvious a means of preserving health as that of duly providing for the removal of refuse animal matter by proper drainage.

The following instance of the contagion of scarlet fever is interesting, as showing conclusively that contaminated air was clearly its sole and only source. I attended a young Irish lady, who was staying with her aunt in the neighbourhood of Norwich, for a mild attack of scarlet fever caught at school. Every care was taken to prevent the spread of the disease; no one else in the house caught it, although neither the clergyman nor his wife, in whose house it occurred, had had scarlet fever, as far as they knew; and the young lady shortly returned to her own home in Ireland quite well. After her departure, I advised her uncle and aunt to go away for some weeks, and to have their house thoroughly cleansed, whitewashed, and purified. This was duly attended to, and, on their return a month or two afterwards, they found, as they thought, everything in perfect order. But unfortunately a drawer in one of the bedrooms had been kept locked, and had not been opened during their absence; and, when the lady of the house examined it, she found in it a napkin or towel which had be en used by the patient. A few days afterwards I was requested to visit her, on account of an attack of scarlet fever, evidently caused by the effluvia from this drawer, which was the only place in the house that had not been subjected to a thorough cleansing. Fortunately the case terminated favourably, and no more trouble ensued.

Whilst on the subject of the sudden invasion of serious and fatal disease, I may be allowed to refer briefly to the kind of medical supervision and action required to obviate and remove such baneful influences. The Local Government Board have, in various parts of the country, appointed officers of health, such officer being generally one of the district medical officers, and elected by the guardians of the union. To my mind, this arrangement appears highly unsatisfactory. The medical officers of the different country districts, comprised in a union, are much on a par as regards qualifications and practical knowledge; and it appears invidious to appoint any one of them to be supervisor over the others, and to give him power to interfere with his neighbours' districts. Their practices are so entertwined or interlaced with each other, that jealousy is sure to be engendered by such interference; and where there is ill feeling of this kind, no cordial unity of action can be expected, and therefore the law would have but little chance of being satisfactorily worked and carried out.

Another mode of appointing medical officers of health that has been suggested, and in some places acted upon, is that of establishing large districts—a county, for instance, or part of a county, according to its size—and appointing a health officer to supervise it who shall be known to possess special qualifications for the performance of the work, and who shall be remunerated by a sum sufficient to enable him to devote the whole of his time to the duties devolving upon him in his public capacity. This is, I think, an improvement upon the other, but might be objected to, on account of the expense it would unavoidably entail. Another mode, less expensive and less objectionable than the first mentioned, would be to appoint every district medical officer under the poor-law the officer of health for his own district, and pay him extra for the duties and returns which such a position of responsibility would require of him. In the present improved state of medical education, I think there would be but few union medical officers who could not easily qualify themselves for these additional duties; and certainly, if qualified, no one could perform them with so little extra trouble and inconvenience; indeed, no one could so readily ascertain the existence of threatening signs of serious disease, or so easily make himself acquainted with the local causes which might be in operation to produce it. Under any arrangement, they must be the first to observe, and give notice of the existence of, such a state of things; and the stimulus of increased remuneration would keep them on the alert to watch the approach of the enemy. There is another plan, which I think worthy of the consideration of the authorities, and it is this: that every board of guardians and every district surgeon, on the invasion of any sudden disease, or for the prevention or removal of any nuisance likely to cause disease, be empowered to summon in consultation the supposed best authority on the subject in any large town near at hand, and pay him the usual consultation fee, according to distance and the time occupied in the investigation. I am inclined to think that such a plan as this would work well and be economical; and that the arrangement first alluded to is by far the least satisfactory of any of those I have mentioned. Surely it is one of the legitimate objects of this Society to sift such a subject as this to the very bottom; and, when thoroughly definite and satisfactory conclusions have been arrived at, to present its views forcibly to the Government, and throw its whole weight into the cause, to insure, if possible, their being wisely and beneficially carried out. Those who do not care to bestir themselves about sanitary measures are sometimes apt to insinuate that medical men are not likely to occupy their time in attempting to prevent disease, for its presence is what enables them to earn their living. But to say that we are not always willing—nay, anxious—to mitigate the sufferings of others by removing, as much as we can, all removable sources of disease, would be a most unfounded and unwarrantable libel on our profession.

When we consider what large numbers now belong to this Association, and the great amount of mind and talent embraced in it, it is difficult to say what are to be the limits of its usefulness and of its responsibility. It, no doubt, behoves us, individually and collectively, to turn over in our minds how we can best contribute to the accomplishment of the great results expected of us. Two things strike me as especially needful: first, that we should attempt the elucidation of many phenomena we meet with, by earnest physiological research; and, secondly, that we should endeavour, above all things, to add to the not too ample store of practical facts in the use of remedies for the cure of disease. These two departments of study cannot be fully undertaken by the same individuals.

Physiological research, to be worth what it ought to be,

requires the close application of vigorous minds adapted to the science and imbued with a love of it, but free also from all anxiety about the ways and means of providing for their daily wants and necessities. All so engaged ought to have, or be provided with, sufficient means to enable them to devote their whole time and attention to their work, without the cares and troubles of practice; whilst, on the other hand, those who are engaged in the great and paramount object of curing disease cannot possibly spare the necessary time for minute physiological investigations. Each, however, can materially assist the other: the practitioner can furnish facts and observations which may greatly assist the physiologist in his experiments; and the latter can enlighten the former by giving reasons for the facts presented to his notice. The majority of us must be practitioners, and earn our living by practice; but I should hope, in a Society like ours, means will ere long be found to supply the necessary funds to a certain number of young and healthy minds, congenial to the work, to enable them to devote their time and energies to physiology as a separate study. I was forcibly impressed with the necessity for this division of labour by the interesting address of Professor Burdon-Sanderson at the last annual meeting. I have read that address since with much pleasure, and am induced on the present occasion to make a few remarks upon one of the subjects embraced in it. I allude to the theory of pyrexia. The cause of the increased heat of the body in fever has long been a vexed question, and, perhaps, has never yet received a satisfactory answer. Many different theories have been advanced to account for it. Virchow is of opinion, if I be not mistaken, that it is a nervous phenomenon depending probably on some morbid or unnatural condition of the cervical portion of the spinal marrow. Others have also more than hinted that lesion of the cervical spine, implicating the medulla spinalis in that region, has great influence in the production or annihilation of animal heat, according to the particular portion injured. My own views of the matter, which are confessedly unsupported by any experiments, I feel scarcely justified in placing before you; only that any suggestion which results from deliberate consideration of a subject may possibly be of service, either in leading to further investigation in the same direction, or in removing some of the useless materials encumbering the ground. For these reasons I will venture to occupy a few moments of your time by stating what I think may possibly be the *rationale* of what is termed a fever fit. First we observe, after a preliminary period of *malaise* dependent upon the particular poisonous influence which induces the fit, a cold stage, a state of shivering, of coldness felt by the patient, of contraction of the superficial parts of the body, with seeming lessening of size, sharpness of features, and goose-skin, as it is commonly called. This cold stage is, after a shorter or longer time, followed by increased heat of the surface and tumefaction, terminating eventually in sweating; and thus the paroxysm ends. Cullen, one of the strictest observers of his day, attributed the cold fit to spasm of the extreme vessels, by which the blood was impeded in its course through the capillaries, and accumulated in the larger bloodvessels in the interior of the body; and I know of no better explanation of the phenomenon. Certain it is that, in the cold stage of fever, the surface is for a time cold, although we know that, even while the patient still feels cold, the temperature begins to rise. This fact was pointed out by Cullen, for he says, after describing the premonitory symptoms of fever and the onset of the cold stage, "at length the patient feels a sensation of cold, commonly first in his back, but from thence passing over the whole body, and now his skin feels warm to another person;" and in another place he notices "the feeling of cold while the body is truly warm." Now, the suggestion I venture to offer, in explanation of a fever fit, is, that the poison which produces it does affect the small vessels, as Cullen describes, preventing the flow of blood freely through them, and that this obstruction produces an influence of resistance in the heart, urging it, as it were, to overcome the difficulty by an increased *vis a tergo*. Now, the heart receives much of its power from the cardiac nerves, derived from the cervical ganglia of the great sympathetic; and may not they, through reflex action, afford the heart the additional power required? If so, then would follow the increased heat engendered by increased muscular action imparted to the heart and whole arterial system, as well as more rapid oxidation and increased waste of tissues. No one can doubt that increased muscular exertion or action produces increased animal heat, as is daily proved by many familiar examples.

Well, the increased action of the heart and arteries overcomes at length the obstruction to the capillary circulation, and the muscular effort produces augmented heat of surface; and this, after a while, is relieved by perspiration. I attribute, as you will observe, this increased action in the bloodvessels to the influence, not of the cervical spinal nerves, but to the cervical ganglia of the sympathetic, which furnish the three principal cardiac nerves; and it may not be going very far into the clouds to imagine that, from the intimate connexion of these ganglia with the pneumogastric nerves, they may indirectly influence them in producing anorexia, sickness, lassitude, and several of the other concomitant symptoms of the febrile state. A friend of mine, long since dead, but formerly a very active practitioner, gained considerable credit for his success in the treatment of fever; and the peculiarity of his practice was this: he bled his patients in the cold stage, acting on the principle that drawing blood from the veins would, in such a condition of things, relieve the pressure on the heart and large vessels, and enable the blood to circulate more easily through the capillaries and superficial vessels. He considered that by this means the reaction would be lessened and the hot stage moderated. His argument was the opposite to that of removing the obstruction by a *vis a tergo;* he aimed at relieving it by taking away some of the obstructing material.

I now come to remark upon the other department of professional study which, I think, ought to occupy a considerable portion of the time and attention of our members—I mean the study of the effects of medicine upon the human body, when employed for the cure of disease. Scarcely anything could be more useful to us than an accumulation of reliable facts in physic; and if each one of us were to contribute what he knows, or may know, of a certainty in this respect, and such contributions were placed in the hands of a committee, who would collate them, and publish in our journal such of them as might, after strict and careful examination, be proved of good foundation, a great service would be done to practical medicine, and a vast boon conferred upon the public at large. We want something as definite in the practice of medicine as we have in the practice of surgery, where we know that a ligature will stop a bleeding artery, that a caustic will destroy unhealthy tissue, that pressure on an artery will cure an aneurism, and the removal of a sequestrum cause the healing of a necrosed limb. It cannot be denied that there are many facts in physic, but, at the same time, not a few that are supposed to be so will not bear the test of experience; and, strange to say, what may be supposed and believed to be facts by one practitioner are not always found to be so by another. A particular medicine answers in the hands of one person, whilst another fails to observe similar results from its employment in his own practice, and under very much the same circumstances. Can it be that the strong will and wish to cure effects its object, as it were, by a kind of mesmeric charm upon the patient, irrespective of the particular medicine administered? Some of us may be possessed of a greater power than others to instil confidence into the minds of our patients, and this may contribute somewhat to their recovery; but beyond this I have no belief in mesmerism. Yet it is certainly remarkable that medicines strongly recommended by men of large experience as almost infallible in the cure of certain diseases, should by others be found valueless when employed for the same purpose. Surely much of this uncertainty and contrariety of opinion might be dissipated by a committee of this Association fully devoted to the task of elucidating this difficult subject, and who might, sooner or later, afford us, by their united efforts, a more definite knowledge of the action of medicines in the cure of disease. I am myself inclined to think a good deal of this discrepancy is due to the increasing disposition in the profession to shape their line of practice in accordance with novel theories, which are no sooner mooted and partly believed than they one after another disappear like the baseless fabric of a vision. A theory, however specious, can never avail us much unless founded upon experience; neither can any hypothesis safely guide us that is not supported by facts. It is much to be regretted that in our profession a vast amount of the experience of those who are most successful dies with the possessor; and the beginner, instead of having the accumulated experience of his predecessors to lead him, has himself to pass through the same difficult and mazy path, clearing away obstructions as best he can; and even then, in spite of earnest efforts and much wearisome work, finishing at last at about the same step

of the ladder as those who have gone before him. Surely, here our great Association might render essential service to the practical working of our profession. If only each member of it would contribute even a little of what his experience proves to be true, the sum total of such individual knowledge would afford a mine of information, the value of which could scarcely be estimated or over-rated.

A word more about the value of the combined efforts of our Association, and I will forbear to encroach further upon your time and patience. At the last Norwich meeting, held August, 1846, about two hundred gentlemen assembled in St. Andrew's Hall at the first *general* meeting. Mr. Crosse, in his address as President, remarked that—"As a science to be studied for the public good, legislation on medical matters is entitled to every consideration; until recently it received less attention from the executive in this than in almost any other civilised country in the world, although the profession have been agitating the subject for nearly forty years, but most warmly in the last three or four. And, after all, what are the conclusions most generally arrived at and avowed by the greater part of the thinking and experienced men? A few general principles are what they agree upon; and foremost may be placed a general registration of all legally qualified practitioners, with annual publication of the register. The next are, uniformity of education and community of privilege, in each grade, throughout the empire—principles which will be more appreciated every year by the increasing intercourse which rapid and easy transit is sure to produce, rendering the present incongruities more and more apparent, until they will be deemed too absurd to be longer maintained, and we shall see the profession in England, Scotland, and Ireland united into one brotherhood." These prognostications of the revered President of that day have, as you all know, been realised; and the principles then advocated by the Association have since been fully carried out, though only after many years of earnest representation and pleading on the part of the great and influential body I am now addressing. So, gentlemen, I believe it will be in the future; only establish principles which are just and of undoubted benefit to the profession, and the powerful agency of this great Society, more and more powerful as years roll on, will most assuredly at last secure the favourable consideration of the Government, and force upon it the necessity of granting such reasonable demands as we may unitedly urge upon it. At any rate, I feel perfectly assured that no Act of the Legislature which we, as a body, consider to be detrimental to the profession or to the community, will have a chance of passing into a law in the face of such an influence as that now possessed by the British Medical Association.

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# ADDRESS IN MEDICINE.

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It is well that we should sometimes ask ourselves, with regard to the special sciences to which we devote our lives, the questions—Whence have we come? and whither are we going?—and this has been obviously felt by those who, in directing the affairs of the British Medical Association, ordained that there should be an annual "Address in Medicine."

We can appreciate the nature of our present position only by a regard to the past and an outlook towards the future. If we would know what the present condition of medicine or pathology really is, we must see whence it has come, and whither it is tending; inasmuch as a reference to the past is necessary for the comprehension of work that is in progress now; and a glance towards that which is to come, and which must be the outcome of our present work, is also essential, if we would test its truth or attempt to measure its value.

If Linnæus asked like questions about man, with an outlook into regions which have not as yet been drawn within the limits of exact science, we, too, in our review of pathology, must sometimes pass beyond the lines within which that science has, perhaps too often, been confined, and by which it has been sometimes cramped. Medicine is no isolated science; we cannot draw a line around the group of facts which we so denote—nor, indeed, around any group of facts—in such fashion that we may truly say that, within its enclosure, the whole of any one science lies, and that outside such enclosure all facts must receive a different name. The whole of any one science is the whole of all; and pathology has its biological, chemical, physical, and mathematical elements on the one hand, and its mental, moral, and social bearings on the other.

In the somewhat perilous task that I have set before myself, it is not my intention to attempt to furnish an account of the details of recent scientific work in medicine; but rather, by an examination of our past and present relations to four great propositions, or—if I may use the term—articles of creed, to show how they have affected our modes of investigation in the past, how they are governing or guiding our labours now, and what are the results which we see coming from the now existing and prevailing tendencies of thought.

The four articles of creed to which I refer as influencing, for good or for evil, the progress of scientific pathology, are a belief (1) in Life, (2) in Man, (3) in Individuality, and (4) in the Specificity of Disease. The relation of the worker to the notions entertained by him with regard to the facts connoted by each of those four expressions, must determine the character and bearing of his work, and it is my object to try to bring before you the nature and effects of that relation.

1. Those who have gone before us in the study and treatment of disease have held, and that very strongly, to a belief, *first*, in Life—*i.e.*, in a power, force, or condition of matter which was *sui generis;* which could not be explained away; which could not be referred to any combination of physical powers; which had an origin, the nature of which was beyond the reach of our modes of investigation; the career of which was, although often "sorely let and hindered," outside of and above all temporary and material obstacles; and the end of which, as we see it here, was but the beginning of another development, for the features of which we must patiently wait until we ourselves had passed into another state of being.

It is obvious that this view of life often led investigators of disease away from objects which they should have examined, drove them into conditions of thought which were fatal to a correct appreciation of the truths they wished to know, cramped their notions of the possibility of preventing or curing sundry affections of both mind and body, and perverted the efforts which they did make for the alleviation of ills they could neither arrest nor remove.

Some of the names of familiar diseases point to the nature and key-note of the pathology of the times in which they were first applied, and illustrate the first point that I have mentioned. The terms "morbus sacer," "morbus comitialis," "morbus sancti Weitii," the "king's evil," "St. Anthony's fire," and the like, conveyed meanings that are now happily lost to science. The affections thus denoted were only a few of many which it was profane to attempt to account for by other than occult and mysterious influences upon the greater mystery of life. The investigator was driven back and away from thoughts or processes of examination which should intrude into these secret places of the unknown.

Again, the notion that life-processes were totally dissimilar from all physical and chemical changes, so that the life-force held all these changes under its own control, effecting, by its direct agency, movements both coarse and molecular, such as bore no relation whatever to the results of well-known chemical and physical forces, led the minds of the most earnest thinkers away from the proper track of scientific and legitimate research, and placed them in a condition of hopelessness and confusion such as nothing but a strong and, perhaps, excessive revulsion could remove.

Diseases which were held to be the result of some direct interference with the higher processes of life, such as insanity of mind and many of the disturbances of motility and hallucinations of the senses, were maltreated or untended, except by incantations or the administration of some mineral, vegetable, or animal substances selected on no observation of their real therapeutic effects, but simply upon some mystic ground, some tradition, fable, or dream. And, again, the efforts that were made, within what was held to be the legitimate region of therapeutics, were misdirected and limited by the notions of volitional opposition to be overcome, not only in the patient, but in this organ and in that; and the processes directed to overcome this resistance were often absurd, and sometimes worse.

A change has passed over all this mode of thinking; processes and phenomena which were held to be among the sacred mysteries of life have been shown to be facts of chemistry and physics—facts which can be recorded by figures, words, and drawings. The chemistry of digestion, of assimilation, of secretion and excretion, has been pursued, and unravelled

with scrupulous care and marvellous exactness. We have learned something of the rate of movement of nerve-change; of the nature and mode of the operation of impressions on the organs of special sense; of the conditions of muscular contraction; of the relation between definite movements of the limbs and certain portions of the brain; and, indeed, of many curious links between some of the higher processes of thought and special portions of the nervous centres. Diseases have been produced by artificial means; one disease has been used to destroy another, and vaccination has done much to diminish, and may probably succeed in eradicating, small-pox; diseases have been removed by chemical processes, both directly and indirectly; the diabetic process has been controlled by a diet-rule; sarcinæ have been killed by sulphurous acid; and electrical appliances have restored wasted muscles and inactive nerves when these were apparently beyond all reach of hope. Modern pathology, by the aid of the microscope, the test-tube, and other means, has read many of the secrets of life, and the physician has been able so to wield the forces of life as to set right much that was wrong, and bring back the functions of organs which were virtually dead.

But, granting that we have removed much of the traditional mystery which obscured the facts of life, that we have resolved many so-called living actions into chemical and physical processes, and have described them in other than "vital" terms, it may still be questioned whether or no we have advanced many steps in the solution of the ultimate and real mystery of life. The tendency of the present day is to believe, and act upon the belief, that we have done so; and, as it seems to me, to push aside awkward facts as irrelevant or unreal, and to smother questionings by representing them as either solved, insoluble, or worthless. It seems to be almost believed by some that, if the chemical elements of which organised and living beings consist are brought together under favourable conditions, they arrange themselves into vital forms and execute vital functions; and just as certain bodies in solution may assume definite crystalline form, so other bodies may agglomerate into organic form and exhibit the properties of life. Again, the obvious "correlation" of the physical and vital forces has led some to believe not only in the correlation of forces and actions, physical and vital, but, further, in the identical nature of the two; and so that which constitutes the true differentia of life appears to me to have been lost sight of in the very brightness of the light which has been thrown upon the conditions of its action. It is well known that heat, electricity, light, air, food, and other external physical forces, impressions, and materials, are the agents by which the processes of life or vital actions may be educed, and without which they fail to show themselves; but, when the idea is entertained that life itself is nothing more than an aggregation of the resultant movements of these conditions, materials, and forces, it seems to me that we are wrong. Impressions from without may determine the occurrence of motion or sensation; but the secret of life is still hidden in the organism which transmutes the one into the other. Physical force may be correlated to vital acts, but life itself is the special property or condition of the special material which effects that peculiar relation, and it is as far from comprehension now as it was a thousand years ago. Heat applied to a fertilised and "living" egg may set in motion all those chemical and physical changes and movements which make up the living processes of a growing bird; but, if the egg be not living, to begin with, heat but hastens another series of chemical changes—those of disintegration, putrefaction, and decay. Life is still hidden in the wonderful cells from which all these changes of structure and function take their start. Again, if we apply electricity to a nerve-trunk, a cerebral convolution, or a more central structure of the brain, motions of definite character, association, and sequence may result; but the secret of life still lies hidden in the properties of those nervous elements which transmute such electrical impression into the facts of muscular contraction, and association of muscular contractions, in the movements of the limbs. To illustrate my meaning here, let me remind you that every so-called chemically "elementary body" is known as such only by the power which it possesses of so modifying materials and forces with which it is brought into contact, as to be distinct in its sum of properties from every other elementary body. We can describe it only by terms which involve some facts simpler than those of chemistry; but the idea is irresistible that, *e.g.*, gold, silver, and lead differ from one another in the fact that each of them has in itself a "something," we know not what, which determines the various bearings of each of those elementary bodies under the varying conditions to which they may be exposed—a something which makes them what they are, and to which we unconsciously refer in thought when we give them names and places in scientific categories. This individuality, or "tendency to individuation," as it has been called, is what constitutes that which has been termed their "life." The same mode of thought is true with regard to the living organic body—no matter how simple or how complex;—that which makes it living, which alone justifies the attribution to it of the properties of life, is the possession of an individual power of behaving in such a way under given circumstances, and amidst the brunt of conflicting forces, and surrounded by varying materials, that it evolves the phenomena we designate as vital.

I do not mean to say that anyone distinctly says to others, or even to himself, "I can make living beings by putting together the elementary bodies of which they are composed under favourable conditions;" nor do I think that there are many who would say, "Life differs in no respect, in all its details, all its relations to personal consciousness, to moral sense, to intellectual product, and to social history, from the physical forces of which we know so accurately their modes of action as to be able to foretell the result of experiments we may make, or of processes which we see advancing." But I do think this—that many are disposed to think that, if we could make our experiments only a little more clever, that if we could carry our machinery of experimentation but a little further—and there is no doubt that we shall do so very shortly—we shall get rid of the term and the idea of life itself, and so make a great advance in science. It may be that this will be done; but, for one, I believe that it will not be done. But that there will ever remain the same kind of mystery with regard to life itself—however keenly and satisfactorily many of its processes may be referred to simpler agencies—that still shrouds the nature of those simpler forces, such, for instance, as gravitation or heat, with regard to the nature of which we have ceased to question. We have admitted that their "essence" is beyond our ken, and that we can but study their phenomena; we have not tried, or have failed if we have tried, to reduce them to a common denominator. But with regard to life, we have drifted into a sort of belief that it is to be decomposed, explained away, or got rid of; and that our true line of action is to be found and followed by such a belief in the future results, rather than in the present or the past facts of science.

The mode in which this state of mind affects us, as physicians and surgeons, is, I think, injurious. Among other evils which come from it, I will mention two. The first is, the growing disregard of what may be termed "subjective symptoms" of disease; and the second is the effect which such frame of thought exerts upon therapeutics.

With regard to the former—"subjective symptoms"—is it not coming to this, that but little attention is often paid to the accounts which patients give us of themselves, their ideas, emotions, feelings, and physical sensations? These are things which we cannot weigh in our most guarded balances; measure by our finest scales; split up in our crucibles; or describe in any terms save those which are peculiar to themselves, and which we cannot decompose. These symptoms are often disregarded and set aside; and the patient, whose story of disease is made up of them, is thought fanciful, hypochondriacal, hysterical, nervous, or unreal; because, forsooth, we have physically examined thorax, abdomen, limbs, and excretions, and have found in them nothing wrong; because we have looked at the retinæ, examined the limbs electrically, traced on paper the beatings of the pulse, weighed the patient, and have not found him wanting. Still he is miserable, in spite of placebo and assurance that there is "nothing organically wrong." There may be in him the consciousness of a deep unrest; or of a failing power, which he feels, but which we cannot see; or of a something worse than pain, a sense of "impending evil," that he is conscious of, in brain or heart; a want of the feeling of intellectual grasp, which he may call "failure of memory," but which memory, when we test it, seems free from fault; a want of the sense of "capacity for physical exertion," which seems, when we see him walk or run, to be a mere delusive notion, for he can do either well and easily to our eyes and those of others; and so he is called "nervous," and is told to do this or that, and disregard these warnings that come to

him from the very centre of his life. And let me ask whether or no it has not again and again happened in the course of such a history as that which I have only faintly sketched, that some terrible catastrophe has occurred? Do we not see minds gradually breaking down while we say there is no evidence of organic change in the brain? hearts suddenly ceasing to do their work, when, after careful auscultation, we have said there was nought to fear? Suicide or sudden death sometimes disturbs the calm surface of our scientific prognosis of no evil; we may be startled, and may then see all that we ought to have seen before. But when the ripples that such unforeseen events have occasioned on that smooth surface have subsided, we go on as we have already done, and still pay but little attention to what the patient feels, and delight ourselves in the precision of our knowledge with regard to physical conditions of which he may know nothing and may care still less. No one can appreciate more highly than I do the value of precise observation, but I do not believe that minute, delicate, and precise observation is limited to a class of facts which can be counted, measured, or weighed. No one can see more distinctly than I do the wrong conclusions at which a physician may arrive by accepting as true the interpretations which fanciful patients may offer of their symptoms; but I am sure that, if we pay no heed to these mistaken notions of a suffering man, we lose our clue to the comprehension of the real nature of his malady. Morbid sensations and wrong notions are integral parts of the disease we have to study as a whole, and we are bound to interpret their value for ourselves; but we can ill afford to set them aside, when we are as yet but in the dawn of scientific pathology, and are endeavouring to clear away the obstacles that hide the truths we hope hereafter to see more clearly about the mystery of disordered life. The value of such symptoms may be slight in some kinds of disease, when compared with that of those phenomena which may be directly observed; but we are bound to remember that there are many affections of which they furnish the earliest indication, and there are not a few of which they are throughout the only signs.

Again: the view that is taken of the correlation of vital and physical forces, when it assumes the form that I have mentioned, and which amounts to a practical ignoring of the fact of life, is, I think, mischievous in therapeutics. That which is the differentia of life is, as it seems to me, lying in the organism, and is that which makes it capable of transforming physical forces into vital acts. But what we are often attempting to do in our treatment of disease is to elicit vital action, rather than to conserve vital force. We see that, by giving such and such drugs, we change—and, as it seems, for the better—the merc processes of life; we may limit or increase muscular movements; we may augment the quantity of secretion here, or of excretion there. But, let me ask, do we not often see that, when we have effected these changes, when we have given diuretics, purgatives, diaphoretics, and the like, and have witnessed their appropriate physical results, the disease is no better than before, and the patient is worse? We have brought vital processes into play, but have used up the vital force in doing so. On the other hand, we try to check what appear to be excessive and exhausting discharges, or tiring and distressing acts; we try and often succeed in diminishing the frequency, force, or extent of certain vital functions that appear to be, and indeed are, beyond the normal range. But, again let me ask, do we not often see, when we have succeeded in lulling a cough and diminishing the amount of expectoration, that other and far graver troubles supervene; that, when a diarrhœa or diuresis has been cured, the patient is worse than before; that, when a skin eruption has been removed, some nervous trouble takes its place? Again: by the administration of alcohol or of other stimulant or tonic, we may often help a man to get through some work for which, without such aid, he was totally or partially incompetent; we have evoked an amount of vital action that would otherwise have been impossible. But do we not often see that we have really done more harm than good; that the weakness has increased, and that the necessity for stimulation has become aggravated, and that what was really needed was food and rest, which should have nourished the organism, built up the tissues, and replaced what was wanting in living force? We have helped our patient to do things he could not otherwise have done, but we have used up his life in doing so.

Once more: in the present day, electricity, in its many forms, has come again into fashion, and constant and faradic currents, chain-batteries, and magnetic belts are topics of common conversation and articles of dress, in boudoirs and clubs, as well as in the consulting-room of the physician. The mischief that is being done by such abuses of a very valuable therapeutic agent is grave and manifold; but is the profession altogether blameless in this matter? There are some conditions in which electricity is very useful, and useful by calling into play the function of nerve and muscle; but it has again and again been used when it could by no possibility have been productive of the slightest advantage, and when the production of such enforced action of muscle and nerve has but diminished the strength and exhausted both the energies and the endurance of those who had not one grain of either of those qualities to spare. Muscles and nerves have been driven into action when they needed rest; but that which has guided the practitioner into such mistaken practice has been the notion that to evolve function was the great end of treatment, whereas what was really needed was a conservation of the central nutrition, and a consequent addition to the stock of vital force. Rest, food, cod-liver oil, and soothing drugs, were needed; and not faradisation, alcohol, or strychnia.

These points are enough to show the class of evil which may arise from what I hold to be a wrong way of putting the notion of the relation between physical and vital force, between life and vital function; and I cannot but think that, by a review of our ideas of life, and by a regard to the objects, direction, and limits of our therapeutic agents, we may hereafter find it less frequently recorded in the domestic annals of our patients, that he or she had "suffered many things of many physicians, and was no better, but rather the worse."

As ancillary to the line of argument which I have followed, there is much to be gathered from a regard to the recognised causation or etiology of disease. The conditions which derange or disturb health may be grouped in the following manner:—1. Those which change the due income to the body of ponderable, measurable, intelligible, and appropriate material, such as food in all its forms, solid, liquid, and gaseous. These may be deficient, excessive, or unwholesome; and we know fairly well the results of bad eating and drinking, of bad water and bad air. 2. Those which interfere with the due elimination from the body of its waste products—faulty secretion and hindered excretion. 3. Those which diminish, derange, or exaggerate the amount or influence of certain imponderable agencies—light, heat, electricity, and the like; and here, too, I would place physical injuries. 4. Those which in any way disturb the due exercise of the body in such way as to distort the balance between income and expenditure of these imponderables—for example, overwork, underwork, deficient motion, deficient rest, care, anxiety, and toil.

I do not know what recognisable and ascertained cause of disease might not be included within one or the other of these four categories; and by their aid we may explain a vast number of the morbid conditions which we have to study and to treat. But let me ask if, after the most careful scrutiny, we are not again and again compelled to say we can find no cause for the particular malady presented to us in this person and in that. We fall back upon constitution, predisposition, hereditary taint, and other easily employed but most inadequately examined and utterly uncomprehended words, to account for what we do not know and can by no means explain; and by the use of such phrases we only shunt the etiology into a siding, or throw back for one or two generations that which is inexplicable in the present.

We know much of the conditions determining the occurrence and favouring the development of the "acute specific diseases." We know much of the results of accidental exposures, of overwork, of faulty education, and of miserably defective hygiene. We know something of the conditions which may aid the growth of the group of "constitutional diseases," and which may antedate the processes of natural decay; we know much that may be useful in its application to masses of people, and to this I shall refer hereafter. But what, let me ask, do we know, and know definitely, of the starting-point of disease, of so-called "constitutional" sort, in a large proportion of the cases that come under our care? It is worse than idle to assume that we know as yet the true etiology of cancer, of Bright's disease, of tubercle, of Addison's disease, or, again, of that which determines the difference between the many maladies of the nervous centres which crop out in writer's cramp, torticollis, chronic chorea, locomotor ataxy, epilepsy, diffused sclerosis, or general paralysis. We often lightly refer any one of them to conditions common to the causation or supposed etiology of all, and then fall back upon peculiar predisposition. Again,

do we not often find that, upon the most careful scrutiny of all antecedents, we are unable to explain why this man has Addison's disease, and that suffers from ataxy, why one suffers from cancer, and another from writer's cramp? There is much that is as yet withheld from our most earnest gaze—much that, as it seems to me, we must as yet refer to a change, the nature of which we do not know, in the very innermost recesses of what we call "life." There is something radically and essentially wrong in that upon which all these so-called "causes of disease" are brought to bear; and I think we are driven by the facts of daily experience to believe that the organism—the living material which, by virtue of its own endowments, determines, in obedience to external impressions, all vital acts—is in itself at fault; and that its departures from the normal condition vary, and are different the one from the other, in such way as to produce those various modifications of structure and function which we term "constitutional diseases." As physicians and surgeons, it is our part to conserve life by preventing, when we can, the inroad of disturbing agencies; to preserve life in its integrity of useful work and fit association with all that makes life happy; to help it in its weakness, heal its suffering, lessen its sorrows, and soothe its closing hours; but I think we shall accomplish these purposes successfully only by admitting its existence, its separateness from all other forces, acknowledging its mystery, bowing ourselves down before the enigma of its origin, and reverently humbling ourselves in face of its unsearchable but wonder-teeming end.

2. In continuing our review of the past and observation of the present, let me next remind you that the fathers and forefathers of pathology held a firm belief in the essential peculiarity of Man. They believed that man was a creature in many respects allied to and resembling other members of the animal kingdom, which was, or had been, brought into more or less complete subjection to itself, but presenting points of difference from all the so-called lower forms of life far greater in their intrinsic value, although, perhaps, far less in their numerical representation, than the points of agreement or resemblance. Thus, and for this reason, the maladies of man had an appearance and received a consideration which could be understood and justified only upon regard to a belief in the entire separateness of man's life and history—in its origin, its purpose, and its end—from that of the most elevated and most familiar members of the animal kingdom.

The effect of such teaching was to set a limit to the acquirement of certain classes of knowledge which might be highly useful to man in regard of many of his bodily ailments. And not only so; it led to an entire misapprehension of many facts that were of constant occurrence in the healthy and unhealthy lives of men. Actions which are common to man and the animal races—actions of simply reflex character, of sensori-motor, or of emotional origin, in addition to all those which were regarded as intelligential, were separated by a broad line of distinction from all similar actions occurring in the most gifted animals. This being so, the attempts which were made to explain such phenomena in man had their starting-point, not in physiological method, but in metaphysical speculation. Animal life, in its various outgoings, was abased that man might be exalted. The term "instinct" was rarely applied to the latter; the possession of reason was denied the former. And in the present day we constantly hear, on the one hand, of the remarkable "instinct" of the dog, for example, as an explanation of some distinctly intelligential process; and, on the other hand, we hear many facts and functions of human life described in terms of intelligence, while they are, in reality, examples of but instinctive impulse, sensori-motion, or reflex action. It would seem, from what we often hear, as if the idea prevailed that instinct grew up into wider and more complex function from the lower forms of life until it had reached its maximum in the highest and most gifted animals, and that from this point man started on an entirely new basis, and that all the actions performed by him, from the cradle that rocks his first infancy, to the coffin which at last cradles his second childhood, were the outcome of another and separate power. Herein we see the existence of a twofold error; for, firstly, the purely instinctive acts of animals are witnessed in their highest perfection, and in their most remarkable mechanical results, in such lower forms of life as seem to be altogether deprived of intelligence; whereas the introduction of intelligence in the higher animals stunts and overrides their purely instinctive acts. The bee builds its cell and the spider spins its web with an accuracy which the skilled hands of man might envy; but the dog, the cultured friend of man, learns to forsake the instinctive habits of his race, and to do things which no instinct could ever enable him to do, and to take joy in acts of obedience and affection which might furnish, and have furnished, useful examples to ourselves. Man, secondly, on the other hand, from earliest infancy to oldest age, exhibits much that is purely instinctive, and which deserves no higher or no other name. And this is seen not only in the baby feeling for, and kneading with its tiny fists, the breast that feeds it, nor in the second childhood that puts out its lips and grasps the hand that brings its food, but in all the "seven stages" of life that our great poet has described. In the schoolboy, the lover, the warrior, the justice, and the decaying senior, we see the several time-ordered instincts cropping out; and determining now, as they have done in the ages that are gone, that about and around which poetry may wrap its finest tracery of verse, upon which philosophy may build its brightest hopes, and from which, in another mood, it may shrink abashed and humbled, and by which religion is sometimes lifted into its highest phase and sometimes driven backwards almost to despair. Each period or stage of man's life has its special instinctive characters, and few of my audience will think that, in saying so much, I have overstated the quantitative value which is at this time given to the merely physical powers and determining forces of the complex life of man. The tendency, as I read it, at the present day is to pass to the opposite extreme, and to see nothing distinctive in human life; nothing which cannot be explained, in physical function, by reference to the lower forms of animal existence; and nothing in the mental and moral history of ourselves which cannot be referred to analogous processes of material change.

For myself, I must protest against this view, and I venture to do so, not as a philosopher or moralist, but simply as a physician in daily contact with those who are suffering from mental and bodily disease.

I see in the latter—the bodily ailments of men and women—as the most frequent cause of their occurrence, and as the most potent elements in their etiology, disturbances in the working of those social, moral, and intellectual processes, which are unlike and apart from anything which can be even tortured into resemblance to the causes of disease in animals. The cares of professional life, the worry of the Stock Exchange, the heated excitement of the betting-room, the luxurious idleness of the club, the intellectually guided epicureanism of sensual excess, the feeling of the urgent pressure of family and social needs, as well as the fierce conflict between moral sense and religious training on the one hand, and doubtful practices and honest and dishonest scepticism upon the other, are the most fruitful sources of loss of rest, recourse to stimulants and narcotic drugs, failure of appetite, disturbed digestion, mal-assimilation, "nervous break-down," and all the thousand ills that flesh is heir to. I say, designedly, "that flesh is heir to," because I am now speaking of bodily ailment only, and affirm that this kind of causation of malady is peculiar to man, and that we lose sight of much which it behoves us to consider if we fail to see the broad line of distinction which, in this particular, separates him from the animal kingdom, to which he is allied.

Again, the inferences that have been drawn, from observations on animals, with regard to the phenomena of diseases apparently common to those animals and to man, have, I think, been pushed too far, and have led to much unintelligible controversy. The differences between the human and the animal organisation have been sometimes lost sight of, although many of them are obvious enough. Variola and vaccinia afford a striking illustration of my meaning, when we remember their different relations to infection and inoculation, and the curious effects which are produced by the passage of either of these poisons through the human body, or through that of the cow. This is but one of many examples that might be given of the necessity for the inoculation of poison from the animal world, if we would infect the human being with its virus; and there are others which show that the ordinary mode of transmission from animal to animal is restricted to special groups of animals, and does not apply to man. Still further, the very interesting observations that have been made with regard to the inoculation of tubercle exhibit another striking difference between man and those rodentia upon which the experiments have been made in the greatest number. I allude to the freedom of the brain-membranes from the effects of the general infection. We may speculate upon the causes of such a difference; and it matters

little for my purpose whether or no the greater development and activity of the human brain should determine its proclivity to suffer from tuberculisation of its meninges. That such difference does exist is a well-known fact, and points to a still greater and wider difference which we should not ignore. Again, the action of many familiar drugs upon the most familiar animals is so different from that which we know to occur in man, that therapeutic experiments upon the former should be received with much more than "one grain of salt" when they are put forward as our guides in the treatment of human malady. If mercury fail to increase the biliary secretion of dogs, and if opium cause diarrhœa in those, our delightful companions, we are not justified in the inference that blue pill is useless in some forms of so-called "bilious headache," and that opium is valueless in some forms of diarrhœa.

To pass, however, from these physical ailments, to those which show themselves in disturbance of the higher faculties of man, let me remind you of our great distinction from the members of the animal kingdom in exhibiting a form of malady, or rather many forms of malady, from which they are happily exempt. Something very like epilepsy occurs in dogs, in horses, and in domesticated birds, and it may be artificially produced in the rodentia. Something very like the stupidity and waywardness of man may be seen in our domesticated friends—they exhibit sometimes, as it has been said, "a disobedience almost human"; but the curious and complicated phenomena of insanity have never, so far as I know, been observed in the lower animals. We may see in them the delirium of fever, the hallucinations of commencing rabies, the irritability of advancing years or of premature decay, the outcome of forced luxuriousness, that antedates the fretfulness of age; we may find them stupid and long-lived, or precocious, clever, affectionate, impulsive, and so possessed of faculties that would make us apply to them, and in an enlarged sense, the old adage, that "those whom the gods (and not only the gods, but men) love, die young"; we see them weakened in body and in mind, —but we do not see in them "insanity," *i.e.*, in any of the more striking forms in which it presents itself to the physician, whose business it is to deal with human beings.

This distinction, which adds to the many other helps that we may derive from the animal kingdom, seems to me to be of great value when we are attempting to show the difference between man and those creatures to which he may bear the closest physical and intellectual relationship. It is so, not only in regard to the lower corporal distinctions that may be traced, but in respect of that which affects man in his highest relations, his mental and moral capacities for exertion, and also, unhappily, for his disease.

We cannot pay too high a regard to all the conditions which conduce to physical health; but I am sure that we shall lose much, of quite inestimable value, if we regard these only, and look to an infant, a growing child, a youth, or an adult, as a mere animal to be trained, for this work or for that, just as we might train, or "break" in, a dog or horse, and neglect those other elements in his higher training or education, which have no direct relation to those lower phases of life, but which are an integral part of his development, and essential to his fitness for the position for which, by the nature of his constitution, as man, he is created.

All that I have already said upon the value of "subjective symptoms" of disease might be recapitulated here, and urged with augmented force; but if I were to do so it would be a waste of your time, for I feel sure that there is no need for me to insist again upon the line of thought that I have ventured to suggest.

I cannot but believe that, if we would understand the ills and sufferings of man and endeavour to assuage them, we must deliver ourselves from notions, however plausible, and from theories, no matter how clever, which reduce man to the level of "the beasts that perish." While we refuse to be led astray by old-fashioned dogmata that would ignore his relation to the animal world, and his possession of qualities which in no sense differ from those which we see in the donkey, dog, or horse, we should not fail to recognise in him faculties which they do not possess, and which may be the fruitful source of disease; powers in him to which they show only the faintest resemblance, but which, in him, may constitute by their derangement the misery of life; and modes of treatment which can only be successful by the fact of their basis being the belief in the fact of manhood.

At every period of life, of human life, we may often see much that is purely instinctive relegated to a higher sphere of motion, and may, in cynical mood, sometimes say about the youth—

> "'Twas strange that one so young should thus concern
> His brain about the action of the sky:
> If *you* think 'twas philosophy that this did,
> *I* can't help thinking puberty assisted."

But I am sure that we shall do our work the better, if we come out of and above this lower ground, and recognise in the suffering man the fact of qualities which transcend all that we know of the mere animal life; see in him a sense of duty and of self-sacrifice, an outlook to the future and to the unseen, a weariness of the merely temporal, and a belief in the eternal, that shall lift him into the region of our personal sympathies, and out of those simply physical ranges of action which we recognise in cats and dogs. There may be much to disturb his appreciation of the two worlds to which he feels himself to belong, much to make him sometimes cling tenaciously and blindly to the "seen," or much to urge him onwards in an equally blind pressing towards, or absorption in, the "unseen," or much that makes him incapable of appreciating the reality of either; but still, as we look at man, in his misery, shadowed over with doubts, and hindered by fears, quailing before imaginary ills, or exulting in factitious joys, we can pity him, feel for him, try to help him, wonder at him, fail to understand him, but we cannot despise him, we cannot thrust him down to the level of the brute, but rather ask ourselves, in deep sorrow, or in deeper joy—

> "Tho' world on world in myriad myriads roll
> Round us, each with different powers
> And other forms of life than ours,
> What know we greater than the soul?"

3. The next point to which I wish to direct attention is the belief in "Individuality"; the influence which this belief has exerted in the past, and still exerts in the present, history of pathology; and also the effect which a disbelief in the individuality of each human being seems likely to effect on the future of our science and art.

Our forefathers, and indeed many of our collateral relations in the brotherhood of our profession, did, and do still, cling to the persuasion that, although there may be much similarity between all the members of what we call the "human family," or "human race," there is to be found between each member of that race, and every other, a difference, which, not only for the sake of the individual, but for the purpose of complete scientific investigation, overrides the generic resemblance, so that every man, woman, and child presents for investigation and treatment a personal and a family history which we should be unwise to ignore. To have known the individual from his birth, or to have "brought him into the world," as the somewhat arrogant but time-honoured phraseology runs; to have known his parents and his family, and to have watched his childhood, youth, and manhood, were conditions which were held, and are still held, to be important elements in the probability of correctness in a physician's diagnosis, prognosis, and treatment of the case that comes before him. And surely there is something to be said upon the value of such knowledge. But I think that it has been heretofore often overrated, and that now it is in danger of being underrated. So long as, and wherever, such knowledge was the excuse for ignorance of general pathological laws, or the cover for carelessness in the examination of the patient, it was evidently wrong, and abundantly productive of false notions and mischievous treatment. It was an injustice to the individual, and an injury to the practitioner. But let us ask if we are wise in ignoring all information of this sort? Whether we may not learn much from the family history and the idiosyncrasies of many, which would be utterly passed by except for such accidents of professional information? Whether or no we would not sometimes trust ourselves, in our own sufferings, to someone who knew us well, and had known us long; who knew our parents and our belongings, and who, with no special skill in the use of many implements whose names may end with "scope," hit out some common-sense line of treatment, the result of much experience and far-seeing, rather than commit ourselves to the care of the most highly trained graduate in medicine, who could see our retinæ, trace our pulse, qualitatively and quantitatively examine our excreta, record our temperature, and bring to bear upon our case the last generalisation of the latest writer on our peculiar malady? I think that we should; or at all events that we should like to combine, if we could, the guidance from both sources; we should be glad to know all that our younger

acquaintance could teach us, but we should also like to fall back upon the wisdom of our older friend.

That which has conduced the most powerfully to a disregard of personality and idiosyncrasy in the study of disease, is the prevalent adoption of the statistical or numerical method in the processes of pathological investigation. No one can appreciate more highly than I do the value of that method, but I think we have often missed the point of its teaching, and misapplied the real aids to be derived from it in the treatment of disease. Statistics are eminently useful for the destruction of hasty and erroneous generalisations; by their aid, and often by such aid alone, we can prove that certain currently received dogmata are wrong. But it often happens that "one fact, well observed, is worth (not only) a cart-load of opinions," but is equal to many folios of statistical inferences, calculated to any number of decimal points.

The value of statistics in pathology is in proportion, first, to the approximative identity of the several cases with which the inquirer has to deal; and then, secondly, to the number of the cases exhibiting such nearness of resemblance. When the former element, the resemblance of cases, is disregarded, no matter how wide the area from which the results have been derived, we have learned some curiosities of arithmetic, but nothing of real scientific value in pathology. When the latter element, the extent of the area of observation, is forgotten, we may have acquired some amusing learned lumber; but we obtain little that can be of real service in our attempt to grapple with the multitudinous variations of disease in so complex a being as man.

At the best, our knowledge is but a fraction of the truth we want to know, and statistics do but tell us what that fraction is. But where, as it seems to me, our frequent mistake lies is in the fact that we regard this definite and positive fraction wrongly in giving to it a substantive value, whereas we should look to the other side, the often much larger fraction, that represents the unknown, unexplained, and unreduced facts of medicine, and apply all our energies to their solution. An illustration may make my meaning clearer. In the statistical examination of the etiology of a particular disease—it matters not what—we say, *e.g.*, that in 25 per cent. there was an hereditary taint, and we fall back upon the idea that the chances are as one to three that the disease was, in this particular instance, inherited, and so we sometimes content ourselves with such assumption, and seek for no further causation. Indeed, it may be within our personal knowledge that the patient's father suffered from a like affection, and so no other explanation seems necessary, and we do not seek for it. But let me ask whether, if in 75 per cent. of all cases of a particular malady, no hereditary taint could be discovered, we are right in putting the chances of heredity at so high a point as one to three in any particular instance? If in 75 per cent. the disease had originated spontaneously, or apart from hereditary taint, it might do so, and probably has done so, in some of those twenty-five in whom hereditary taint has been shown to be possible. On purely arithmetical grounds, we ought to say that in only one-third of the twenty-five could there be an antecedent probability of family transmission of the disease. This would reduce the etiologic value of our statistical knowledge of heredity in this disease to less than 8 per cent. Then let me ask whether or no our duty is not to examine more carefully the other cases, those 75, or more properly 92, per cent., in whom we have no reason to believe in this mode of causation? and still further, whether or no we have not quietly put aside any investigation of such sort, when the bare fact of the existence of a like disease has presented itself in a near relation of the patient's, who is confided to our care? The probabilities are as ninety-two to eight against an hereditary origin, but we give our patient anything but the "benefit of the doubt," and frame our etiology, diagnosis, prognosis, and treatment upon an hypothesis which presents ninety-two to eight chances against its being correct.

I have selected this example of hereditary taint, and have reduced its value to a minimum, because it rather militates against the view that I wish to enforce, of the importance of a knowledge of family history, and still more of individual character; but a similar line of argument might be employed to show the exceeding vagueness of our knowledge, derived from statistics, with regard to the other etiological conditions of a very large number of diseases, and the urgent necessity that exists for careful examination of each individual case, as to the origin of the malady which may bring it before our notice, and of the extreme danger which attends the propensity to fall back upon numerical statements.

Our daily and hourly work is with individuals, and I cannot but think that, so far as regards the comprehension of their diseases and their needs, statistical pathology has afforded us no other aid than the elimination of much currently received opinion. This has a real and obvious value; and it is in this destruction of error, and not in the construction of the science of medicine, that the numerical method finds its *rôle*.

Again, it is curious and interesting to know—as we do pretty accurately—how many people in 1875 will be killed by railway accidents; how many will break their legs in Hansom cabs; how many will drink sulphuric acid; how many will be burned to death; how many will die of phthisis and carcinoma; and how many octogenarians will marry young girls under twenty years of age; but when we have obtained this knowledge, so curious, and yet so precise, let me ask, of what value is this to you or me, or any of our patients, who may be starting on a railway journey, "hailing a Hansom," using sulphuric acid, shutting off our gas at night, exposing ourselves to cold or worry, or advancing in years to the fourscore, which, on high authority, is said to be but "labour and sorrow"? So far as I can see, the value is inappreciable, for life is too complex in each individual for the application of many general laws; and, least of all, for the deductive use of those which are derived from a mere regard to numbers.

By statistical formulæ we may "insure" lives, so as to benefit the survivors, and protect shareholders; but we can use them only in their application to the many; they are of no pathological significance to the individual. That one man is accepted at ordinary rates, and that another has to pay an addition of 20 per cent. to his premium, may be a useful arrangement for the office, which deals with masses; but it affords no guarantee that the former may not die of fever within a month, or that the latter may not outlive all those who had no drawbacks to their claims. And here, let me say, that a practice somewhat common in insurance offices may, I think, lead to some serious discomfiture hereafter: I mean one which seems very natural—viz., that of making an addition to the premium for insurance of a faulty life, to be removed, if, after five, seven, or ten years, on re-examination, the proponent is in good health. This is done with a kindly feeling of regard to the individual, but not on an established basis of statistical knowledge; and the two elements, of judgment of the probable future of the individual on the one hand, and the requirements of the office on the other, are somewhat jumbled together; and so we, as physicians and advisers, are stepping out of the known lines of average probability for the many, into the vague territory of knowledge of the individual, with regard to whose personal and peculiar chances of viability we know little, or next to nothing.

Perhaps there is nothing which marks more distinctly the individual peculiarities of people than the relations which they bear to external agencies—material and immaterial; such as light, heat, electricity, food, and drugs. We call these peculiarities, idiosyncrasies; we meet with some of them two or three or more times in twenty years, but others are so rare that a long life of varied and wide experience may have witnessed but one example. Some people are most delicate electrometers and magnetometers; and I know one such who became blind in a thunderstorm eight years ago, and whose physical frame before and since that time is always contorted by electrical and magnetic disturbances long before the former are recognised by ordinary people, and when the latter have only been displayed by perturbations of the machinery for electric telegraphy. We may all possess properties which are influenced by such conditions; but they are affected to only such a slight degree that the existence of such sensitiveness as that which I have mentioned must be regarded as individual. Again, peculiarities with regard to food furnish another example of the same distinction. One person cannot take egg, in any shape or form; to another tea and coffee are poisons; some cannot eat flat-fish; others are put into cutaneous tortures by strawberries. And so with drugs: ipecacuanha will make some sneeze; a grain of iodide of potassium will iodise one person, a grain of grey powder will salivate another, opium will produce colic in a third, and so on. In the face of facts such as these, it behoves us to regard each individual member of the human family as at present, and at all events for pathological and therapeutical purposes, unexplained and often untouched by those general statements, or so-called

statistical laws, which we have been able to frame with regard to the behaviour of the race.

We speak of dentition troubles, of all the morbid tendencies which accompany the several epochs of life, of the surgical operations that may be undergone, of the diseases that are prevalent at this age and at that; and, indeed, sometimes of the end of it all in death, in such way that one is reminded of the comfort taken to him or herself by that very clever person who moralised upon the post-mortem, or perhaps not always post-mortem, treatment of the eel! "Custom hath made it in him a property of easiness" may sometimes be said of the physician or the surgeon, as well as of the grave-digger who sang over his ghastly toil; and also of the astute fish-fag, who failed to recognise the individuality of the eel, upon whom was being performed the last tender office of removing its cutaneous envelope.

Daily experience teaches us that each case, or rather that each man and woman, must be examined for himself and herself; and that nothing short of a knowledge of the individual will be of real service to us if we would understand and treat disease. We are all of us alike, yet we are all dissimilar. Each of us has for himself to go through but once the stages of development that are common to us all. Each individual life is continuous, and passes, onwards and alone, through growth to maturity and decay. No one can keep with us; no one can enter into all the mysterious windings of our intellectual and moral being; no one can do more than share our troubles and our joys; no one can take them from us; the sympathy and the love that help us to bear them, and which we so fondly cherish, do not render us less alone; and as we reach this epoch, or that period of our existence, and find ourselves floating, drifting, or manfully pushing onwards upon the rivers and over the depths and shoals of time, and which we know that our fathers have passed through before, we cannot help, each in our individual consciousness—in spite of statistical law, of bold generalisation, and *reductio ad absurdum* of all preconceived opinion,—we cannot, any one of us, help feeling, as we come to one or many of them, as if

> "We were the first that ever burst
> Into that silent sea."

4. And now I come to the last point that I wish to bring before you—viz., the Individuality or Speciality of Disease. These words do not fully convey my meaning, and yet I know not any others which would serve my purpose better. By illustration, however, I trust that what I mean may be made apparent. The chronic wasting diseases with which we are all painfully familiar—such as tubercle, cancer, rickets, Bright's disease, Addison's disease, gout, and the like—present many points of resemblance *inter se*. They have symptoms in common; many of their accompaniments or intercurrent phenomena are identical; there is much that is common to their modes of termination, and much that is alike in their anatomical appearances. We know, with some approximation to precision, the commoner sequence of events in each of them; can sometimes explain something of their causation; and can predict, in general terms, their future. An enlarged view of the living bodily functions, and a more careful and extended examination of the organs and tissues after death, have shown a far wider range of physical alteration than that which was believed to exist in many of the diseases to which definite names were given in days gone by. Microscopic analysis, becoming finer and more exact, has revealed such a notable resemblance or identity in the ultimate facts of structure-change in many diseases, that the accomplished pathologist may fail to describe or even see their difference, while their rougher features have enabled even the tyro to put them at once into this category or into that.

And so there has grown up a tendency to sweep away distinctions and names which were the delight of our forefathers; to disbelieve in the existence of so-called "constitutional" disease; and to refer all the changes of tissue to the accidental operation of local interferences with nutrition. There is much to be said in favour of a reconsideration of all old distinctions, and of the names by which they may have become familiar. It is by no means necessary, for example, that the kidney should be always involved in those degenerative processes that may fairly be called "Bright's disease." It is not essential that the supra-renal capsule should be affected in a cachexia that well deserves the name of "morbus Addisonii." It is not constantly found that the ligamentous and cartilaginous tissues of a joint are affected by a special inflammation in one whose antecedents and symptoms warrant the application of the term "gout" to the malady from which he suffers. But I think we should be going far wrong, if, in regarding either the variety, the resemblance, or the wide extent of symptoms, we lost sight of the individuality of that which underlies those symptoms—*i.e.*, of some central fact, property, force, element, or tendency, which finds expression in the special grouping of phenomena or symptoms. There is something that is wrong in the organism of A, and which is radically and essentially different from another "something" that is wrong in the organism of B, when the one presents tubercular disease, and the other cancer. We do not know what that something is, nor does it seem to me that we do more than approximate a knowledge of the direction in which we should look and work in order to find it out. We know very much of the general order of events, of the relative frequency with which this organ and that is found involved in tubercular, cancerous, or other cachexiæ; but as to the determining causes of these differences of proclivity in the affection of particular organs, we know next to nothing. They are at present ultimate facts of science; and they are like to those which pertain with regard to the "acute specific diseases." With respect to them, we know that scarlet fever affects the throat, the skin, and the kidneys in a particular manner; that the poison of measles, of typhoid, and of other exanthemata exhibits another form and order of infection; but as to the reason for these facts in their history we know nothing. We fall back, in regarding the latter—the acute specific diseases,—upon the individuality of the poison that is brought into the body from outside; with regard to the former—the chronic and constitutional maladies—we must, I think, adopt a similar process of thought, and recognise a speciality or individuality in that which determines the starting-point and subsequent career of morbid change. It seems to me that the further we carry our knowledge of the intimate detail of structural alteration, the further do we carry ourselves away from the discovery of the "missing link." Diagnosis may often be as easy as it is possible to conceive up to the point of recognising some diseases, to which we may give a name that is useful for the purposes of recognition; but we are only on the threshold of inquiry as to the whole pathology and etiology of these affections, or, in other words, their complete diagnosis.

With regard to many diseases, we are in a position that might be described as somewhat like that of the physiologist and the schoolboy in combination, when they have found two birds'-nests. The one—the histologist—shall examine the contents of one of the eggs of each nest, and apply all his microscopical powers on the cells that he shall find; he may call the chemist to his aid, and yet fail to give, after the most searching gaze and chemical analysis, even a guess as to the nature of the bird that would be developed by the simple application of warmth to another egg which he has not broken. The other—the schoolboy—looks at the shell, and decides in a moment that this will become a blackbird, and that the other will produce a lark. What the relation may be between the colour and the marking of the shells and the wonderful constitution of their contents that shall determine the development of this bird or of that we do not know. What is the difference between those contents we do not know, but let us remember that a quite specific and wide difference does exist between them, although it is far too fine for any of our processes of investigation to demonstrate its nature; and yet that a diagnosis may be made by observation of the character of certain superficial phenomena which we can in no way connect with the essence of the difference. If we apply this illustration to the diagnosis of disease, we see that the pathologist sometimes ignores the existence of difference which he cannot apprehend; misses his true line of work, which lies often in another, and as yet unconsidered direction; while the practical man solves the question at a glance. The difference really exists, but it is by its outcome, in the modification of life-functions, that we really make our diagnoses of disease; and by regard to these, I think we are driven to a belief in the individuality of special ailments.

While we are perhaps losing way rather than making advance in our knowledge of some classes of disease, by the endeavour to get rid of their individuality, there is, at the same time, a tendency to over-refinement of specialisation and nomenclature in regard of other classes. Such terms as "locomotor ataxy," "Cruveilhier's atrophy," and the like, may be very useful if they but direct attention to the lines

along which degenerative changes in the nervous centres are apt to run; but if there is attached to them the kind of importance which we sometimes find they have received, we wander, I think, from the true path of scientific investigation; and are led to separate from one another maladies which are much more closely allied in their real nature than the difference of their names would warrant us in supposing. There is an individuality in these, but let it not be over-estimated; there must be something which determines why this tract of fibres or that in the spinal marrow shall be the starting-point of morbid process or decay; but the conditions which lead to these differences have not yet been made out, and there are many so-called causes of disease which are common to them all. What I think, then, that we should do is, bearing in mind the individuality of disease, search into all its phenomena, not rest satisfied with those which seem the most relevant and the most consistent with the present modes of physiological thought, and the ascertained facts of pathological research; but pass beyond them into the outlying regions of vital phenomena, and perhaps discover in them (*i.e.*, in some apparently irrelevant facts) the clue to a solution of their mystery.

In recapitulation, let me remind you—1. That by losing sight of, or underrating the primary fact of life, we deprive ourselves (*a*) of the information to be gained from a study of subjective symptoms; (*b*) we often misdirect our therapeutic efforts, by eliciting vital action, rather than conserving vital force; and (*c*) lose sight of many of the most important causes of disease. 2. That by failing to see the speciality of the nature of man, we underrate or ignore (*a*) much of the etiology of human suffering; (*b*) are often misled by the results of observations upon animals; and (*c*) are in danger of misinterpreting the facts of the most serious maladies that my afflict our fellow-creatures. 3. That by disregarding the individuality of man, we are in danger (*a*) of again and in another way losing a due appreciation of the causation of disease; and (*b*) of overrating the value of statistics, and of being led astray by their apparent precision, which exists only with regard to masses; and 4. That by an unsound application of the idea of the specificity of disease, we may, on the one hand (*a*) sweep away distinctions which are facts of pathology, and, on the other (*b*), raise up or lay down lines of demarcation which are unreal.

From what I have said it is, I think, obvious that the science of medicine is in a state of "change" as well as of "progress." It has not yet arrived at the degree of exactness which may be found in the simpler sciences; but those who are devoting themselves to its pursuit are pressing towards that end; and each is endeavouring so to throw his mite into the treasury of knowledge, that a scientific ordination of the facts of pathology may hereafter be a possibility. But the facts are so diverse in kind, so varied in appearance, and so bewildering in their complexity of form, that we must wait, and perhaps wait long, for their due arrangement. Thousands of observed facts lie as yet hidden in the valuable but unrecorded experience of those who are daily adding to the unwritten lore of medicine. We gather scraps of them in conversation and in consultation; we may often see something of their influence upon the habit of thought and of practice of those whose large stores of information have not as yet been exposed to view, and which have not as yet been sorted for personal use. But a true science of pathology cannot be until the knowledge of all individual workers is the common property of all. In the meantime we must "learn to labour and to wait"; and we must least of all commit ourselves to any one particular school or line of thought, but rather cultivate that habit of mind which has "a look southwards, and is open to the whole noon of Nature."

Those who are the workers in this wide field are not all in one "stage," as it has been termed, of scientific inquiry. We are not all of us in either the "theological," "metaphysical," or "positive" stage of thinking with regard to our relationship to the facts and forces around us. Very few individuals who have seen much, thought much, and felt much, are so limited with regard to the sum total of their experiences as to assert even for themselves a position—an exactly limited position—on either one of these three platforms. But each one has his bias or tendency of thought; and the work that each does, and the results to which such work tends, are greatly influenced by such underlying and directing force. I have endeavoured to show the effect which, as it seems to me, may be produced by an over-attachment to one line of investigation, and by a neglect of another, the results of the pursuit of which the student of man can ill afford to lose.

In our recognition of the *Speciality of Disease*, we have carefully to examine the nature, and the sources whence they come, of all the contaminations by which the stream of life may be damaged or defiled. They may be puzzling, hard to separate, and still harder to trace to their source. They may be complicated in their effects, and so mixed together, that again and again we may be baffled in our attempts at their analysis. But what we want is work, not on any preconceived theory, but work that shall faithfully follow onwards and trace backwards the line of sequence of events, and eventually yield, as it has done before, a real knowledge of the facts we wish to know.

Again, with regard to the *Individuality of Man*, we must strive to show whence each life has come; the nature of its source; the conditions of its youth; the struggles of its onward progress; the valleys through which it has passed, and the rocks it has had "to overleap or rend." We may often be perplexed in our attempt to solve the problem it presents, but we must accept the facts of their existence, and of their variety. We see a quiet onward flow in the course of one, and a stormy, labouring, toilsome course in another. One seems like a river wandering through valleys in which children play, and upon whose banks age reposes; untroubled by the oar, unhindered by the wheel; and sometimes in deep places, seeming to be at rest, but still passing, although gently, onwards, without sound or ripple, to the far-off sea. Another life-stream comes from its rocky home, dashes hither and thither, in what seems its wayward youth; but gathers strength as it flows on, and does mighty work, setting in motion a thousand busy looms; bearing on its broad breast the light craft of idlers, and also the dark, heavy burthen of outlying toil; working and carrying still onwards the labours of a thousand lives, through quiet valley or through noisy town, until it, too, finds its home. We must know all that makes up individual life, if we would understand its ills. We must go back to its source, and look around at all through which it has had but to pass, or to work its way, if we would know how to understand or avert the troubles it may meet.

And again, with regard to *Man*, it is not until we recognise in him his true relation to the world that lies around him—which in many of its forms of life comes so near, but which is yet so far removed from him in his higher phases—that we shall duly understand his sorrows or whence they come, in such way as to prevent them or relieve them when they are thickly hedging him about.

And lastly we must duly appreciate the great fact of *Life*—the mystery of mysteries—that underlies all our knowing, and overarches us, with sometimes an abyss of light, sometimes with impenetrable gloom. When we try to realise it, we seem to be—for we ourselves are a part thereof—on the surface of a boundless ocean; above us the sky, now dark with cloud or rent by storm; now lit with sunbeams, or trembling with the pale light of stars; beneath us a mighty deep, with its unknown treasures, mysterious currents, and "sense of unfathomable danger." Sometimes we "see the light and whence it flows," we "see it in our joy." Sometimes we see the land, and press towards it; but, again, the night comes down, the horizon line is lost, we are poised between two worlds, and, although we may strain our eyes to see and our ears to hear, we may find no token to tell us of the points in which they meet, no glimmer of the unseen things that sever them.

But let us thank God that we are not left alone, and that in such darkness there often arises light. For, often when most sorely troubled with the surrounding mystery—the abiding mystery—that shrouds the details of our knowledge of both man and life, we find, in our own consciousness, our thoughts, and feelings, that which may enable us to help our fellow in his sorrows, relieve him in his sufferings and fears, and banish from his mind and heart the clouds that may sometimes have gathered, so darkly, around our own. And, having this sympathy, and holding in our recollection and present thought those phases of our own and of other lives—which we know full well, but which we cannot reduce to words—we shall be the better fitted to explore and unravel the whole series of phenomena which present themselves in the lower ranges of pathological investigation. The method of such physical research, as well as its results, will check us when we may be disposed to drift away into the mist or to soar into the clouds, will help us to cultivate exactness in all directions of inquiry, and so contribute to the science and art of medicine, which, in spite of all its failures, misdirections, and missing links, is yet one of the greatest boons that man has been the means of

conferring upon man, and which, we believe, will in the future far transcend, in its benefits to mankind, all that we have known of its doings in the past.

## ADDRESS IN SURGERY.

By WILLIAM CADGE, F.R.C.S.,
Surgeon to the Norfolk and Norwich Hospital.

Mr. President and Gentlemen,—When, by the favour and at the suggestion of my local friends, and with the approval of the Council of this Association, I was chosen to address you to-day, I accepted the honourable responsibility, and, in doing so, took counsel rather of my vanity than of my discretion. To some, whose mental activity is great, and whose pen moves glibly, the opportunity would be esteemed, as, indeed, it is, a golden one. To me, with unready thoughts and with unpractised pen, who delight rather in reflection and contemplation than in speech or written words, the honour was—I may as well confess it—more oppressing than pleasing.

Having, however, accepted the duty, I shall perhaps best explain, I may almost say apologise for, the scope and object of my address, if I recount the thoughts which passed through my mind while in quest of a subject.

A retrospect of surgery compassing the time during which I have been in active work came first to mind; but this has been so often, so ably, and so recently done, that the intention was dismissed almost as soon as it presented itself. I turned next to the records of my own experience, feeling sure that these must contain materials enough, if properly set forth, to furnish an hour of interesting commentary; but though, on looking through my notes, I found instructive illustrations of disease and curious and important cases in abundance, they seemed to display no special features, either of pathology or of treatment, worthy to occupy such an audience.

The novelties of surgical practice introduced during the last year or two are scarcely sufficient or scarcely important enough to constitute a theme. They are chiefly comprised in Esmarch's bloodless system of operating and Dittel's elastic ligature; concerning which I will only say that the first is not a novelty, having been practised by one of our members many years ago, and that the second is, in my opinion, more curious than useful, and not worthy of a place either in the records or in the practice of surgery.

One great subject there is, which, if not exactly a novelty, is of recent time, and is still waiting for a solution, both as to its facts and as to the theories held to account for its facts: I mean the germ-theory of putrefaction and antiseptic surgery. This subject—for I associate them—I deem to be of surpassing importance and interest. Underlying, if not undermining, much of the existing fabric of surgical pathology and practice, it cannot be too often brought to the bar of professional criticism; for on its right solution, whether it be true or not, depend a multitude of points in daily practice, and even probably the lives of many of our fellow-creatures. This subject would certainly have been my choice but for two considerations. More than one influential member of the medical press proposed, at the commencement of the year, to make and carry out a full investigation of the entire question—a proposal which, however, still remains for fulfilment; and I felt, moreover, that, in our sectional meetings, papers by most competent men would probably be forthcoming, and would lead to searching discussion.

Turning, then, from these topics, my thoughts reverted towards home, and fixed themselves on that subject which for every Norfolk surgeon possesses an undying interest, and which, for all practitioners from some point of view, may be presumed to have considerable attraction. The city in which we are now gathered is the centre of a district in which cases of renal and vesical calculus are supposed to be, and probably are, more frequent than in any other part of the world. The explanation of this frequency is so often demanded of one, both in professional and in non-professional society, and is so difficult to give, that I propose to discuss the subject from this point of view, and this alone, not touching, except incidentally, on the question of treatment, about which over much has already been written. I propose further to narrow the question by limiting it to one form of stone—viz., that composed of lithic acid and its salts, which I need not say constitutes at least five-sixths, or more probably, so far as this district is concerned, nearly nine-tenths of all primary formations. While, however, I thus limit the inquiry to this one species, it will be understood to include not merely the accidental occurrence of vesical stone, but the diathesis out of which stone arises; indeed, I have now only to do with calculus in the bladder, in that it expresses, roughly and approximately, the relative frequency or rarity of the lithic diathesis, just as the mortality in any place or district may be taken to represent, roughly and approximately, the amount of sickness in that place or district. For one case of stone in the bladder which presents itself, there are ten at least met with in which the lithic diathesis, or as it may for convenience be termed "lithuria," is fully marked in the form of lithic deposit, sand, or gravel. Let us, then, inquire—1. Is lithuria, as represented by cases of stone in the bladder, more common in this district than in any other part of the United Kingdom? and 2. If it be, what explanation can be given to account for the excess?

The subject has on more than one occasion undergone investigation. Just a hundred years ago (*vide* "A Medical Commentary on Fixed Air," by Matthew Dobson, F.R.S., 1785), Dr. Dobson, of Bath, in an inquiry on the disposition to stone in the cider counties compared with some other parts of England, demonstrated that stone abounded most in the eastern or Norfolk district; that the north-eastern, including Newcastle, York, Leeds, and Manchester, stood next in frequency; that the north-western, including Liverpool, Chester, Shrewsbury, and North Wales, had the fewest cases; and that the cider counties of Devon, Gloucester, Worcester, and Hereford had nearly the same as the north-eastern. About fifty years ago, Mr. Smith, of Bristol, went over the same ground, but more fully than Dobson; and speaking generally, it may be said, he met with similar results—that stone abounded, above all other places, in Norfolk; that a larger proportion was found in the eastern than in the western district, and that Ireland and Scotland were comparatively free from the disease (*vide Medico-Chirurgical Transactions*, vol. xi.).

Dr. Yelloly, in 1830, still further elucidated the subject, and found that, in Ireland, calculus was very rare, especially in its country population; that in many counties no operation for stone had been practised in any of its hospitals, and in some districts the disease was almost unknown. In Scotland, he found as much variation in frequency in different parts as in England; in the very northern counties it was very rare; in Aberdeenshire the proportion was more considerable; in the southern and south-western districts it was exceedingly rare; while both he and Mr. Copland Hutchinson (*vide Medico-Chirurgical Transactions*, vol. xvi., p. 94) showed that, taking the whole country generally, stone was as frequent in Scotland as in England; and that in both it was much more frequent in town than in country populations (*vide Philosophical Transactions*, 1829 and 1830).

In my own investigation, I have consulted (1) the Registrar-General's reports for the last five years for the United Kingdom; (2) I have applied to one of the surgeons—generally to the senior surgeon—of nearly all county hospitals, and of all others having a considerable number of beds, or of those likely to admit and treat stone-cases; and I desire now publicly to express my deep obligation and warmest thanks to those gentlemen—and they include nearly all to whom I applied—who have so promptly, so courteously, and so fully answered my inquiries. The information obtained will appear in a table comprising all the cases received into their various hospitals during the last five years; the number of children under ten; the average age; the number of beds and the proportion of stone-cases to the whole number of in-patients, with incidental remarks by my various correspondents. I am aware that both these sources of information are open to criticism and objection, on the score of inaccuracy. The Registrar-General's reports, especially those from Ireland, are admitted to be faulty; the causes of death are often vaguely and carelessly stated; frequently no certificates are given, and the true causes of death are overlooked; but, where the numbers are large, and the statistical system on which the various data are constructed is the same from year to year, it is probable that a near approach to truth and comparative accuracy is really obtained. So far as hospital records are concerned, they are, doubtless, more nearly accurate in themselves; but the inferences to be drawn may be vitiated by various causes: thus, eminent and successful operators may attract cases from great distances, so as to make it appear that a larger proportion of stone exists in some particular districts than is actually the case, and, therefore, a less proportion in others. This disturbing cause, perhaps, is

chiefly found in the metropolis and in some of the large cities; but, so far as London is concerned, I have ascertained the locality from which each case was derived, so as to allocate each to its proper county, while out of London this vitiating cause does not probably materially affect the result; the result being that, in almost all cases, the returns from the various hospitals fairly represent the amount of stone, and therefore of lithuria, existing amongst the poorer classes of the population surrounding those hospitals. Another source of inaccuracy arises from the increase in number of hospitals, of cottage hospitals, and of dispensaries which contain a few beds, in all of which operations are occasionally performed. Further, there are many surgeons unconnected with hospitals who deal, and deal generally very successfully, with the cases occurring in their own immediate neighbourhood; but these, though they are many in the country at large, are but few in each county, and do not greatly disturb the hospital averages. In Norfolk, for instance, where stone cases are quickly detected and keenly watched, and where certainly there are plenty of capable and enterprising surgeons, I do not believe that more than six or eight cases are annually operated on in the county, while the various hospitals continue to maintain their full average numbers.

Taking, then, the mortality from stone, the Registrar-General tells us that in England there are more than twice as many deaths from stone as in Ireland in proportion to population.

*Yearly average of Deaths from Stone for Five Years ending* 1871, *in proportion to Population and to whole number of Deaths.*

| | Deaths from Stone. | Of population. | Of all deaths. |
|---|---|---|---|
| England and Wales | 200 | 1 in 100,331 | 1 in 2,467 |
| Scotland | 59 | ,, 51,903 | ,, 1,200 |
| Ireland | 27 | ,, 214,740 | ,, 3,354 |

In Scotland, there are twice as many deaths in proportion to population as in England, and four times as many, therefore, as in Ireland. Further, it appears that in the northern counties of Scotland there are nearly four times as many deaths from stone as in the southern counties, the population being nearly equal. Similarly, in Ireland, the mortality is three times as great in the northern counties as in the southern. In England the mortality from stone has increased during the last five years. For several quinquennial periods there was a steady decrease, which led to the belief that stone was really a diminishing disease, but this inference, I fear, was erroneous; all the evidence I have been able to collect tends to show that it is just as frequent as ever, and that the apparent diminution was due rather to better treatment, more willingness to submit to operation since the introduction of anæsthetics, and especially to greater nicety and accuracy in discriminating the causes of death. For instance, in 1840 there were 303 deaths from stone and 132 from cystitis; while in 1870 there were 195 deaths from stone and 415 from cystitis. This remarkable discrepancy is due, not to any real difference in the relative proportion of the two diseases, but in the more exact appreciation of the real causes of death. As in Ireland and Scotland, so in England, the mortality varies greatly in the different registration districts. The northern and north-western counties show the smallest mortality, and the eastern counties the greatest, being in the proportion of nearly one to four; next in amount of mortality to the eastern are the south-eastern and south midland counties. Yorkshire, Wales, and London show a medium mortality, and the west midland and south-western counties have almost as small a mortality as the north and north-western. These facts appear in a table showing the number of deaths in five years, and the proportion to population, and the whole number of deaths in each district.

*Mortality from Stone in England and Wales in five successive Quinquennial Periods.*

| | |
|---|---|
| 1847 to 1851, the average of deaths was | 232 |
| 1852 to 1856, ,, ,, | 216 |
| 1857 to 1861, ,, ,, | 184 |
| 1862 to 1866, ,, ,, | 168 |
| 1867 to 1871, ,, ,, | 200 |

Proceeding to further detail, I have ascertained the mortality in each county of England and in London and Wales for five years, in proportion to population. This calculation, although accurate in the main, is open to this objection—that the number of deaths even in five years is too small in many of the counties to be above the reach of accidental fluctuation. Moreover, the deaths in London do not quite accurately represent the mortality for London proper, because the hospital population of the metropolis is drawn from various distances, and especially from the home counties—thus, at the same time, diminishing the mortality in those counties. Making, then, some small allowance for these slight sources of error, it appears that the greatest mortality obtained in these six counties, in the order named—viz., Norfolk, Huntingdonshire (a small population), Kent, Sussex, West Riding of Yorkshire, and Leicestershire; that the smallest mortality obtained in these six counties, in the order named—viz., Cheshire, Cornwall, Cumberland, Hampshire, Durham, and Devonshire; while the other counties hold a varying position between these extremes; the extremes being, that in Norfolk there is one death from stone yearly in 42,000 and odd, in Cheshire there is one in 425,000 and odd.

*Yearly average Mortality from Stone for Five Years in each Registration District in proportion to Population, and total number of Deaths.*

| District. | Yearly deaths. | Of population. | Of total deaths. |
|---|---|---|---|
| 1. London | 40 | 1 to 70,099 | 1 to 1,904 |
| 2. South-Eastern | 22 | ,, 83,978 | ,, 1,829 |
| 3. South Midland | 15 | ,, 86,367 | ,, 1,882 |
| 4. Eastern | 18 | ,, 63,475 | ,, 1,319 |
| 5. South-Western | 9 | ,, 203,985 | ,, 4,098 |
| 6. West Midland | 19 | ,, 128,216 | ,, 3,028 |
| 7. North Midland | 15 | ,, 85,959 | ,, 1,928 |
| 8. North-Western | 14 | ,, 209,681 | ,, 6,187 |
| 9. Yorkshire | 26 | ,, 77,520 | ,, 2,132 |
| 10. Northern | 6 | ,, 191,895 | ,, 5,459 |
| 11. Monmouthshire & Wales | 17 | ,, 77,202 | ,, 1,721 |

*Mortality from Stone in Five Years ending* 1871, *in the several Counties, and the Annual Death-rate in proportion to Population.*

| | Deaths in Five Years. | Population. |
|---|---|---|
| Norfolk | 50 | 1 in 42,744 |
| Huntingdonshire | 5 | ,, 59,137 |
| Kent | 45 | ,, 60,585 |
| Sussex | 30 | ,, 61,139 |
| Buckinghamshire | 12 | ,, 61,335 |
| Yorkshire (West Riding) | 94 | ,, 61,405 |
| Leicestershire | 19 | ,, 64,115 |
| Monmouthshire and Wales | 74 | ,, 78,140 |
| Warwickshire | 48 | ,, 65,670 |
| Shropshire | 20 | ,, 66,750 |
| Suffolk | 25 | ,, 67,081 |
| Hertfordshire | 13 | ,, 68,250 |
| London | 201 | ,, 69,500 |
| Cambridgeshire | 13 | ,, 69,845 |
| Yorkshire (North and East Ridings) | 34 | ,, 71,475 |
| Worcestershire | 23 | ,, 73,100 |
| Staffordshire | 57 | ,, 76,965 |
| Northamptonshire | 14 | ,, 82,525 |
| Berkshire | 11 | ,, 93,470 |
| Westmoreland | 3 | ,, 101,575 |
| Middlesex | 9 | ,, 104,065 |
| Lancashire | 61 | ,, 108,145 |
| Derbyshire | 12 | ,, 122,485 |
| Nottinghamshire | 13 | ,, 124,530 |
| Gloucestershire | 18 | ,, 135,765 |
| Bedfordshire | 5 | ,, 140,479 |
| Oxfordshire | 6 | ,, 142,690 |
| Northumberland | 12 | ,, 142,925 |
| Wiltshire | 8 | ,, 145,610 |
| Essex | 13 | ,, 146,040 |
| Herefordshire | 4 | ,, 150,900 |
| Dorsetshire | 6 | ,, 151,825 |
| Surrey | 13 | ,, 183,150 |
| Somersetshire | 12 | ,, 193,070 |
| Devonshire | 15 | ,, 196,426 |
| Hampshire | 11 | ,, 207,570 |
| Durham | 11 | ,, 246,420 |
| Cumberland | 3 | ,, 342,125 |
| Cornwall | 5 | ,, 364,846 |
| Cheshire | 8 | ,, 425,520 |

Turning now to the hospital records, it appears that they agree fairly with the Registrar-General's returns, with one exception, to be presently mentioned. Application was made to between eighty and ninety hospitals in England, Scotland, Wales, and Ireland, and reports have been received from

between seventy and eighty; and these reports, besides containing the number of cases admitted during the last five years, and the respective ages of the patients, contain also, in very many instances, results of treatment and practical remarks of great interest and value, which, however, I shall for the most part reserve for future use, merely quoting those which bear upon the present inquiry.

It would be impossible to read in detail the following abstract, but I will cull from it the most salient points, merely premising that the column expressing the proportion of stone cases to the whole number of in-patients has been constructed on the principle that the admissions of 1872 were assumed to be the average of the five years. It must also be borne in mind that all hospitals do not admit patients on the same grounds. A small hospital, having but few beds and narrow income, would admit all the stone cases belonging to its area, but would necessarily restrict the admission of general cases to the more urgent ones; hence the proportion of stone cases would appear greater in small than in large hospitals, and especially so in stone districts. For instance, we have in this city a Children's Hospital containing twenty beds, in which the proportion of stone to other patients is one to thirty, and similarly, in the small hospitals of Yarmouth, Lowestoft, and Peterborough, there appears an undue proportion; but taking the general run of county hospitals and hospitals in large towns, they are probably guided by the same method in their admission of cases, and the relative number of stone to general cases does in them give a fair picture of the amount of lithuria in each district.

Beginning, then, in this county, where undoubtedly there is the greatest amount of stone, permit me to say a few words specially of the Norfolk and Norwich Hospital, which has long held a position of authority in all matters in which this disease or diathesis is concerned. The Hospital, which is now a trifle over one hundred years old, presents, in the accuracy with which its books have been kept, a model for all hospitals. From its opening to the present time, I have without difficulty ascertained the name, age, and residence of every stone case, and where any doubt existed, the doubt was in the mind of the surgeon; there is no ambiguity in the records. Every stone which has been removed, either during life or after death, became the property of the Hospital, and, to the number of about 1050, may be seen, forming a noble contribution to the annual museum of this Association, now on view in the adjacent room.

Including renal and urethral calculi, there have been admitted about 1270 males and fifty-six females. From this record it would, I think, be easy to show that, so far from stone being a diminishing malady, it is rather an increasing one, even beyond that which the increase of population would account for. In 1773 there were nine cases admitted; in 1873 there were twenty-five. In the earlier year there were barely half the present number of beds, it is true; on the other hand, Suffolk had no hospital then, and the patients were drawn from a vastly greater area than now. This record also goes far to show that the sanguine and somewhat romantic view, that stone would come to be "stamped out," expressed by a distinguished friend of mine, has but little chance of fulfilment. During the last five years, the period chosen for comparison, there were ninety cases of stone admitted into the Norfolk and Norwich Hospital, or one to fifty-five of all in-patients. In the Lynn Hospital there were twenty, or one to 124 in-patients. In the Yarmouth Hospital twenty-one, or one to thirty-two in-patients. Now, let us compare this with one of the hospitals in the south-western district—the Devon and Exeter Hospital, in which were admitted six cases, or one to 1300 in-patients; or, with the Taunton and Somerset Hospital, in which, with ninety-two beds, no stone case has been received in five years, and, my informant adds, only two in forty years. This, however, is an extreme instance; in very many hospitals fit for comparison with our own, the proportion of stone to general cases varies from one to 200, or one to 400; but there is a Midland district, having for its chief towns Birmingham and Wolverhamptou, in which not only do stone cases prevail largely, but prevail especially in children. In the Wolverhampton Hospital, 50 cases have occurred in five years, or one to 101 admissions; of these 50 cases, 37 were in children under ten years. In the Birmingham hospitals, the General, Queen's, and children's Hospitals, 127 cases were received, of which 69 were under ten, and the same fact will appear in the report from other and smaller hospitals in the same district. Compare this with the Norwich cases; out of the 90, only 18 were under ten; but the contrast is greatest if we compare it with the Aberdeen Infirmary, which admitted 47 cases in the five years, of which only 3 were under ten. Some explanation of this singular contrast I will presently give.

The metropolitan hospitals will speak for themselves, so far, that is, as my information goes; but they scarcely come into comparison with ordinary provincial infirmaries. The hospital reports from Irelaud, so far as they go, bear out the Registrar-General's reports as to the very small amount of lithuria in that happy land. Even in Dublin, a stone operation, my informant says, is an "event."

In Scotland, hospital experience does not seem to be in accord with the death-rate. The admissions to hospitals would lead me to think that stone is less common there than in Englaud; but the mortality would seem to be nearly double. This discrepancy is not easily to be accounted for, and I cannot help thinking either that imperfect discrimination of the causes of death has been made, or that, in tho snatches of leisure during which I have compiled the table, some error ou my part has crept in. I can conceive that, in the vast areas where population is small and surgeons are few and distant, many patients, who in England would be cured in a hospital, may in Scotland be allowed to languish and die of stone; but it is going too far to suppose that these considerations fully explain away the difficulty. Another mode of viewing the matter exhibits the discrepancy still further. Thus, in Scottish hospitals containing altogether 2151 beds, there were admitted in five years, 171 stone cases. In English provincial hospitals, taken promiscuously (and not including Norwich), containing 2183 beds, there were admitted, in five years, 354 stone cases, or more than twice as many as in Scotland; while, in seven London hospitals containing 1958 beds, there were admitted 229 stone cases: in other words, one stone case to about thirty beds in English provincial hospitals, one to forty in London, and one to sixty in Scottish hospitals. This matter, therefore, I leave for further and more careful investigation.

*Table showing Number of Stone Cases admitted into various Hospitals during Five Years, ending in* 1873, *with the Average Age, Number of Cases under Ten Years, and the Proportion Yearly to whole Number of In-patients.*

| Hospital or Infirmary. | No. of cases in five years. | No. below ten years of age. | Average age. | No. of beds. | Proportion of Stone Cases to whole number of In-patients. | Remarks. |
|---|---|---|---|---|---|---|
| Yarmouth Hospital..... | 21 | 15 | 15 | 28 | 1 to 32 | |
| Peterborough Infirmary | 10 | 3 | 36 | 42 | — 53 | |
| West Norfolk and Lynn | 20 | 10 | 24 | 48 | — 124 | Drinking-waters hard. |
| Children's Hos., Norwch | 9 | ... | ... | 20 | — 30 | |
| Norfolk & Norwich Hos. | 90 | 18 | 48 | 140 | — 55 | |
| Lowestoft Infirmary .... | 10 | 5 | 29 | 30 | — 77 | |
| Wolverhampton Hos.... | 50 | 37 | 11 | 200 | — 101 | A group of hospitals, in which a large proportion of cases are in young children; drinking-water very hard. |
| Birmingham "General" | 61 | 18 | 32 | 256 | — 229 | |
| Do. "Queen's" ..... | 30 | 15 | 23 | 198 | — 286 | |
| Do. "Children's" ... | 36 | All | ... | 58 | — 116 | |
| Coventry & Warwicks.. | 10 | 7 | 12 | 62 | — 110 | |
| Dudley—Guest's Hos... | 4 | 3 | 9 | 60 | ... | |
| Dudley Dispensary ..... | 13 | 19 | 6 | ... | ... | |
| Leicester ..... | 44 | 17 | 32 | 210 | — 236 | |
| Stafford ..... | 7 | 3 | 10 | 120 | — 518 | Water very hard. |
| Shrewsbury ..... | 19 | 10 | 19 | 140 | — 262 | Cases frequent on coal-formation; water hard |
| Derby ..... | 8 | ... | 27 | 175 | — 691 | Water hard in places whence stone cases come. |
| Nottingham ..... | 25 | 7 | 33 | 142 | — 263 | Water variable; generally hard. |
| Lincoln ..... | 11 | 4 | 32 | 100 | — 339 | Water generally hard. |
| Stamford..... | 3 | 2 | 24 | 40 | — 425 | Water decidedly hard. |
| Northampton ..... | 19 | 8 | 27 | 138 | — 402 | Many waters of considerable hardness. |
| Huntingdon ..... | 10 | 3 | 36 | 42 | — 118 | Drinking-waters unmistakably hard. |
| Cambridge ..... | 33 | 14 | 30 | 120 | — 122 | Waters hard, containing a good deal of lime. |
| Colchester ..... | 4 | 1 | 38 | 94 | ... | Town waters hard; in villages rather soft. |
| Hertford..... | 3 | 2 | 19 | 35 | — 250 | Only 5 cases in 20 yrs. |
| Ipswich, Suffolk ..... | 15 | ... | ... | 90 | — 176 | Water very hard. |
| Bury St. Edmunds, Suffolk | 9 | 3 | 38 | 84 | — 223 | |
| York..... | 8 | 3 | 31 | 90 | — 442 | Cases rare; water soft. |
| Hull ..... | 28 | 12 | 30 | 150 | — 230 | Chalk soil; water hard. |
| Leeds ..... | 75 | 23 | 33 | 310 | — 202 | Waters variable. |
| Halifax ..... | 12 | 3 | 39 | 50 | — 177 | Water soft; some cases imported from other places. |
| Bradford..... | 29 | 8 | 18 | 140 | — 141 | Water not very hard. |
| Sheffield ..... | 17 | 7 | 23 | 160 | — 369 | Not much stone; water soft. |

TABLE OF STONE CASES—(*Continued*).

| Hospital or Infirmary. | No. of cases in five years. | No. below ten years of age. | Average age. | No. of beds. | Proportion of Stone Cases to whole number of In-patients. | Remarks. |
|---|---|---|---|---|---|---|
| Sunderland | 11 | 2 | 20 | 110 | 1 to 246 | Water of moderate hardness. |
| Manchester | 51 | 12 | 26 | 296 | — 302 | Water of Manchester soft. |
| Liverpool Royal Infirm. | 31 | 8 | 26 | 270 | — 564 | Water from various sources; generally soft. |
| Do. Southern Hospital | 6 | 1 | 38 | 200 | — 1192 | |
| Do. Northern Hospital | 4 | 3 | 6 | 146 | — 2015 | |
| Lancaster | ... | ... | ... | 70 | ... | No case for 5 yrs.; very rare; water soft and pure. |
| Preston | 6 | 1 | 47 | 76 | — 230 | Stone cases rare; water soft. |
| Carlisle | 6 | ... | 37 | 52 | — 400 | Cases rarely presented themselves. |
| Devon and Exeter | 6 | 1 | 15 | 230 | — 1298 | Water soft. |
| Barnstaple | 3 | 2 | 8 | 100 | — 925 | Stone cases rare; water hard. |
| Taunton and Somerset | ... | ... | ... | 92 | ... | No case for 5 years; only two in 40 years; waters pure and soft. |
| Bristol Royal Infirmary | 19 | 13 | 12 | 242 | — 665 | |
| Hereford | 2 | ... | ... | 74 | — 1560 | Two in previous quinquennial period. |
| Cheltenham | 7 | 4 | 13 | 90 | — 395 | Water rather hard. |
| Bath | 12 | 8 | 14 | 120 | — 448 | Water hard. |
| Dorchester | 3 | ... | 12 | 60 | — 661 | Water slightly hard. |
| Salisbury | 7 | 1 | 31 | 100 | — 714 | Chalk and green sand; water not hard. |
| Ryde | ... | ... | ... | 36 | ... | No case in 5 years; only seven in 25 years. |
| Southampton | 12 | 6 | 22 | 100 | — 379 | |
| Brighton | 22 | 7 | 32 | 165 | ... | Water very hard from chalk. |
| Reading | 17 | 5 | 18 | 140 | — 298 | Water various; generally hard. |
| Guildford | 2 | 2 | 4½ | 54 | — 845 | Water hard. |
| Canterbury | 15 | ... | 39 | 104 | ... | Water generally hard. |
| Dover | 1 | 1 | 6 | 15 | — 795 | Water hard. |
| Bartholomew's Hospital, Chatham | 15 | 9 | 16 | 68 | — 156 | Stone common in Kent. |
| Edinburgh Roy. Infirm. | 61 | 10 | ... | 565 | — 353 | |
| Glasgow Roy. Infirmary | 60 | 18 | 25 | 584 | — 492 | Water generally soft and pure. |
| Paisley | 3 | 1 | 20 | 138 | — 1703 | Calculus very rare; water soft. |
| Dumfries | ... | ... | ... | 100 | ... | None; only 11 in 30 yrs. |
| Aberbeen | 47 | 3 | 60 | 300 | — 184 | Water generally soft. |
| Perth | ... | ... | 84 | ... | ... | None; stone very rare. |
| Dundee | 2 | 2 | 9 | 260 | ... | Both operations same patient; water soft. |
| Inverness | ... | ... | ... | 120 | ... | No case in 5 years. |
| South Charitable Infirmary, Cork | 10 | 3 | 36 | 108 | ... | |
| Monaghan | ... | ... | ... | 60 | ... | None; only 1 in 35 yrs. |
| Limerick | ... | ... | ... | 100 | ... | No stone case in either of the two hospitals for 10 years; water hard. |
| Armagh | ... | ... | ... | 72 | ... | No case for many years; water hard. |
| Roscommon | ... | ... | ... | 85 | ... | Only three cases in 27 years' practice; water hard. |
| Maryborough | 1 | ... | 12 | 100 | ... | Only three cases in 20 years' practice; water hard. |
| Carmarthen | ... | ... | ... | 40 | ... | Stone very rare; no case for more than 7 years; water soft. |
| Haverfordwest | 7 | ... | 55 | 12 | ... | See *Lancet*, April 19, 1873. |
| Bangor | 2 | ... | 12 | 14 | — 172 | Stone rare. |
| Swansea | 4 | ... | 28 | 55 | — 467 | Water pure and soft. |
| Eight London Hospitals—viz., St. Bartholomew's, Guy's, University College, St. Thomas's, St. George's, Westminster, Charing-cross, Middlesex | 280 | 98 | 26 | 2866 | | |

The sources from which the patients admitted into the London hospitals came were:

| | | | |
|---|---|---|---|
| From London and suburbs | 125 | From Bucks .. .. | 8 |
| ,, Kent .. .. | 37 | ,, Hants .. .. | 7 |
| ,, Surrey .. .. | 13 | ,, Yorkshire .. | 7 |
| ,, Essex .. ... | 10 | ,, Sussex .. .. | 4 |
| ,, Wales .. .. | 10 | ,, Lincolnshire .. | 6 |

Others from scattered places.

Passing now to the second branch of my subject, permit me, before considering the causes of the excess of lithuria in this district, briefly to allude to its etiology and pathology. Although it is safe to assume that, when lithic acid deposit frequently occurs in the urine, there is probably excessive secretion, we must not forget that a diminution of the alkaline bases or over-acidity of the urine will lead to deposit, without any relative excess. The conditions of health and disease in which these circumstances obtain are too well known to need notice; but I would ask, as bearing on this inquiry, whence is lithic acid derived? and where is it fabricated? Admitting that it is derived from the disintegration of nitrogenised tissues and from the transformation of the excess of albuminous food, it yet remains a question where or by what agency it is actually generated; whether by the operation of chemical or electro-chemical changes in the blood itself, or in the tissues undergoing change, or by some secreting gland-cells in the liver, spleen, or kidneys. The office of the kidney, with reference to lithic acid, is still a moot question: is its duty simply that of passive elimination? or has it the higher function of constructing and forming the lithic acid, urea, and other principles, out of the materials presented by the blood? Ever since the discovery of urate of soda in gouty blood by Dr. Garrod, there has been a disposition to degrade the function of the kidney, and to allow that it consisted in little more than mere osmosis, and that it simply removed that which already existed. Admitting that urea and uric acid may be formed independently of the kidney, it would seem probable, looking at the fact that healthy blood contains merely a trace of urea and uric acid, and also that, when the kidney is extirpated, these substances do not accumulate in the blood, it would, I say, seem probable that, in the ordinary healthy operations of nature, it is the proper function of the kidney to form as well as to eliminate the ten grains of lithic acid and the 500 grains of urea which a healthy man voids daily. We know that, in certain diseased conditions of the kidney, the power of eliminating these nitrogenous principles is lost, or nearly so: is it not possible that, in certain other morbid states, the opposite conditions obtain, and that, out of the healthy blood, the morbid kidney may form and eliminate an excessive amount of urea or uric acid? Who has not seen, in persons prone to the deposit of lithic acid, an enormous quantity, almost a teaspoonful, voided in a day? and that without any excess of diet, or sign of extreme waste of tissue, or obvious dyspepsia, or ill-health of any kind. If this excess of lithic acid existed in the blood, *quoad* urate of soda, surely the phenomena of gout would be present; but I have so often and so keenly watched this occurrence, and, failing to detect any of the usual etiological causes, it has appeared to me probable that, just as other secreting organs vary in the quantity and quality of the fluid they secrete, so the kidneys, owing to some inherent morbid condition, may form and secrete, out of healthy blood, urine having one or other of its constituents in excess.

But, if, as I have said, there be a tendency to reduce the function of the kidney to that of mere osmotic elimination, I must notice the attempted elevation of another organ, the liver, into what I may call universal supremacy over all the healthy and morbid processes of nutrition and secretion. Not only has it the important glycogenic function and the secretion of bile, but it is also credited with the conversion of albuminoid matters from the blood, the food, and the tissues, and the formation of urea and uric acid. Arguing from the fact that urea has been found in the liver, and from some doubtful and controverted experiments showing that rather more urea was to be found in the hepatic than in the portal vein, and forgetful of the other facts, that urea has been also detected in the brain, the lungs, and the spleen, and that only a mere trace is found in healthy blood, we are asked to believe that, out of these three functions, there flows, in chief part, oxidation, sanguification, animal heat, and the depuration of the blood. It makes one almost stand in awe of one's liver, and believe that, having a liver, we could dispense with all other organs of digestion.

But, if the liver be thus comprehensive as to its physiology, what has not been said as to its pathology? Passing by the structural diseases of the liver, which are well recognised and understood, the list of diseases and symptoms arising from mere functional disorder, as set forth by Dr. Murchison, the latest and stoutest champion of the pre-eminence of the liver in disease, is too long even for mention here; suffice it to say that it includes most of the disorders of all the systems of the body—of the nervous system, of the circulatory, respiratory, cutaneous, urinary systems and organs; and even such acute diseases as pyæmia and the typhoid state are supposed to be frequently the result of functional disorder of the liver. In

my student days, it used to be said that he who understood the nature and treatment of inflammation had acquired half the knowledge necessary for a successful practitioner. Now it would be more correct to say that he who understands the nature and treatment of hepatic diseases has little more to learn.

On this view, gout, of course, is said to be a mere symptom of liver disorder, and the same is said of lithuria and all calculi composed of lithic acid or its salts; and the practical deduction inculcated by Dr. Murchison, and also by Sir H. Thompson, is, that in the treatment of gout and lithuria, those remedies which are supposed to address themselves to the liver are to be preferred to those which diminish acidity and dissolve uric acid; that alkalies and alkaline waters are to be laid aside as inefficient, and, at the best, but of temporary benefit, and that saline aperients and waters of that character are alone of real use. To this I would reply, judging from ample observation, that the saline aperient waters are not proved to act specially on the liver; that they probably act chiefly on the stomach and alimentary canal; that they are not so directly capable of removing gout or lithuria as the alkaline waters; and that, when they do so act, they, like the alkaline remedies, are equally evanescent in their effect. I have the conviction that this tendency to exaggerate the influence of the liver in health and in illness displays the drawbacks of specialism in the study of disease, narrows the view to one stand-point, and encourages the old but loose habit of attributing every obscure symptom to a "disordered or a torpid liver." On the whole, it is safer to attribute lithuria to dyspepsia and malassimilation, which probably concerns all the digestive organs, than to fix the fault mainly on one.

Undoubtedly, the general dyspeptic condition above mentioned, which, in the opulent classes of society, is generally caused by over-feeding and over-drinking, over-work, and deficient oxidation, and in the poorer classes by other sources of derangement, is the most fertile source of lithuria. This source, however, is common to all places and to most countries, certainly to all parts of the United Kingdom: and yet, as I have shown, there is the greatest possible variation in the tendency to lithuria in various places; and this brings me to the concluding question—What explanation can be given of this variation, and especially of the excess of lithuria in this district?—and when I say excess, I desire to guard myself by admitting that, although there probably is excess, this is by no means proved. It may be that the abundance of stone in Norfolk is due, not to actual access, but to circumstances which merely determine the precipitation and separation of lithic acid in the urinary tract. Whether it be so or not—and I know no means of deciding that point—the question equally remains. It has often been asked, but never answered, and never argued, except in a negative manner.

One thing appears to me clear and indisputable—the abundance or rarity of the diathesis must depend mainly on local and endemic causes, aided by another agency, which, however, grows out of the endemic cause. Further, these endemic causes must be due to the physical geography of the district, by which is meant the soil, food, and climate; and, when we call to mind how powerful is the effect of the physical geography of a country on the mental character and on the civilisation even of its inhabitants, we may well appreciate, if we cannot always explain, its laws in the production and spread of various diseases. This vast field of investigation has been cultivated by many distinguished labourers of late years, chiefly in the tracing of general constitutional diseases, but its capabilities for the elucidation of particular local diseases is not even now fully recognised; and yet it seems probable that further knowledge in this direction will not only demonstrate the etiology of many local diseases, but will direct into fresh and more accurate lines the study of their pathology, and even lead to more rational means of prevention and cure.

Taking these causes *seriatim*, the climate of Norfolk has by many authorities been thought to be a powerful factor of lithuria. A glance at the map will show how much this county is projected, as it were, into the sea. From Yarmouth to King's Lynn is a very long coast line, not less than seventy miles. During the winter and spring months there is a great prevalence of north and east winds; and it is held that these bleak cold winds, by checking cutaneous secretion and deranging delicate digestion, cast additional work on the kidneys and liver, and so derange their function and lead to lithuria. Dr. Prout somewhat favoured this view, and the late Mr. Crosse had a strong belief in it. Rigid investigation, however, will show that climate can have but the very smallest influence. Admitting that cold, drying winds do prevail and are keenly felt in this county to a most unpleasant extent, it is not proved that they exceed those of other places. In the north of Scotland and in many of the exposed parts of Ireland, the temperature must be as cold as it is here, and yet it has been shown that we have almost as many cases of stone as in all Ireland. Moreover, in hot climates, such as India and in some parts of China, stone is not uncommon; while in Sweden and Norway, and some other very cold countries, it is very rare. Again, although it is the fact that we pass more lithic acid in winter than in summer, this is probably due to the greater muscular activity we use in the cold season, and to the consequent greater amount of tissue-metamorphosis. The natural effect of arresting cutaneous secretion must be to increase the amount of the water of the urine by which lithic acid and other solid constituents would be better held in solution, and so the liability to calculous deposit would be diminished; and, *per contra*, the increased cutaneous secretion from summer heat may be supposed to lead to concentration of the urine, and consequently to the liability of lithic deposit. The effect of cold is to diminish the acidity of the urine, and prolonged immersion of the body in cold water is said to render it alkaline. Observation, based on the localisation of 1500 stone cases in Norfolk, shows that fewer have come from the villages on the coast, where the exposure to cold is greatest, than from places more inland. These and other considerations which might be adduced did time permit, prove, I think, that climate alone has but little influence in producing lithuria.

The food of the poorer classes in this district, consisting as it does chiefly of good bread, cheese, and a small modicum of meat, chiefly pork, has, however, a speciality which has attracted attention, and has been assigned by many, notably by Prout, as a helping cause of stone. It consists of dumplings made of flour, water, and yeast, which may be described as boiled bread, and are universally consumed by the poorer classes with dripping or treacle. Those who think this article of diet conduces to stone give no other reason for their opinion, than that it is apt to disagree with the stomach and lead to malassimilation. I cannot, however, admit the impeachment against the popular dumpling, for I do not believe that it is hostile to good digestion; it is never referred to by patients as a probable cause; and, when stone cases are admitted into the hospital, although in all instances remedies are prescribed of a nature likely to check lithic deposit, I never heard that the dumpling, which is a part of our hospital dietary, was forbidden. There is, however, one article of food—viz., milk,—the want of which, in my opinion, does influence the development of lithuria very largely. More than twenty years ago it attracted my attention, and I dare say the attention of others, that stone in the bladder, which in the young children of the poor is so common as to constitute more than half the whole number of cases, is seldom or never met with in the more opulent classes of society. In some hundreds of cases of stone which have passed under my own observation, I have met with but one occurring in a child under five years whose parents were well to do in the world; and this experience has been corroborated by all those surgeons of whom I have made inquiry. To what is this marked contrast due? Mr. Thomas Smith, in a paper on the subject (*British Medical Journal*, vol. i. 1869, p. 442), summed up the probable explanation by attributing it to "insufficient and almost arrested cutaneous excretion from imperfect clothing and uncleanliness, tending to disturb the due proportion of the normal constituents of the urine, and lead to a relative or absolute excess of some one constituent; while the digestive organs of poor children are constantly liable to disarrangement from unsuitable food or from irregularities in their mothers' diet." Agreeing in the main with this account, I would go further, and say, that the prevalence of stone amongst the children of the poor is largely due to the impossibility of their obtaining a proper and sufficient supply of sound milk. The insufficient clothing and uncleanliness referred to probably exist everywhere, in Ireland and Scotland as much as in England, and yet Ireland has but little stone as compared with England. Again, in the table of hospital cases which I have compiled, the most remarkable differences with regard to stone in children appear. In the midland counties, a large majority of the cases are in young children, while in Aberdeenshire, where stone in the adult is common, there are but very few cases in children. In

Yarmouth, a town on the east coast, fifteen out of twenty-one were under ten years of age, while in Aberdeen, which is similarly situated, there were only three cases out of forty-seven under ten years. Referring to Dr. Edward Smith's report to the Privy Council on the food of the labouring classes, it appears that, in Ireland, Wales, and Scotland, the poor obtain an abundance of milk, while in Warwickshire, Norfolk, Suffolk, Kent, and other places, very little is obtained. I am warned by time that I may not go more into particulars on this subject; but I affirm that strict inquiry shows that the abundance of stone in children of urban over rural populations, and of one district over another, will be found in strict accordance with the difficulty of procuring milk. The one exception mentioned is very corroborative of this view. A few years ago, after removing a stone from a child of well-to-do parents, I was remarking to one of my assistants that this was the first instance in my practice, and that I attributed the general absence of stone to milk; the mother volunteered the statement that, in a large family, this was her only child who never could take milk, and who, therefore, never had any. To this lamentable want is chiefly due not only this disease of stone, but probably a vast many of the diseases which attend the early years of childhood; which are prolonged into after years of imperfect development and early decrepitude. If ever true wisdom was combined with much false political economy, it was when John Stuart Mill maintained that those who live and labour on the soil have rights in the products of the soil beyond that of mere wage. It would, indeed, be a glorious result of statecraft if, instead of the futile wrangling over the sale of fermented liquors, which has wrecked one powerful Government, and, by the disappointment of greedy expectants, has gone far to sap the popularity of its successor,—if, I say, by some equitable enactment, those who possess and those who occupy the land should be held responsible for the production, in sufficient abundance for the wants of the poor, of that which is now a costly luxury, but which nature points out to be the chief, I may say the only, need of early childhood.

One other fact connected with the food and beverage of this district deserves mention. The light but fertile soil of Norfolk is peculiarly adapted to the growth of barley, and I believe I am right in assuming that this is one of the greatest malt-making districts of the kingdom. One effect of this is, that beer is the common beverage of all classes. The labourer seldom touches spirit of any kind, but his libations of strong, sweet, new beer are liberal and often deep. The effect of malt liquor in provoking gout and lithuria is undoubtedly great, and, if we contrast the beer-drinking Norfolk peasant with the milk and whisky-drinking Irishman, we shall probably be right in attributing somewhat of the prevailing lithuria to this habit.

Associated with the soil is the geological structure. Stretching diagonally across the south-eastern part of the kingdom is the great chalk-formation, and Norfolk may be considered almost its centre. Close beneath where we now stand there is a thousand feet in thickness of chalk; it crops out on the surface, is visible in every pit, and impregnates the superjacent deposits where itself dips deep. Corresponding to this south-eastern chalk-district there will be found a large amount of lithuria; both the death-rate and the hospital records combine to prove this; and I have the conviction that a more minute inquiry than I have been able to make would demonstrate even a still closer relation than I have been able to show. What reason can be assigned for this striking correspondence? The only probable cause that I can discover lies in the character of the drinking-water, and the only peculiar character of the drinking-water is its excessive hardness. That there is an excessive amount of carbonate of lime in water derived from the chalk, will probably be readily allowed. Mr. Sutton, the eminent chemist of this city, has given me the analysis of eighty different sources of water, chiefly well-water, from various villages of Norfolk, and I find that the average hardness is 33° of Clark's scale; while, from forty Government analyses of water from different towns, the average hardness is 11°, and, from sixty-five different sources supplied to Government by Dr. Letheby, the average hardness is 9·2. I am aware that water supplied by public companies is generally less hard than that derived from wells; and I admit that we are not in possession of sufficiently detailed analyses of local sources of drinking-water to justify very close deductions. Still the broad fact remains, and I know no other peculiarity likely to act as a probable cause. The drinking of hard water has long and often been held to influence the production and growth of stone; but I know of no explanation or argument in favour of it, except that of Prout, who says, "that hard waters, in conjunction with other favourable circumstances, have a great influence in producing stone, I have no doubt; they derange delicate stomachs very considerably, and have a tendency to produce lithic sediments, though they generally act by causing a deposit of the crystallised sediments or gravel in those disposed to them." I am not competent to discuss the chemical action of lime-salts in leading to lithic acid deposit; but I note the fact, that both lime and lithic acid are exceedingly insoluble; that there is no chemical affinity between them; and that, although lithate of lime has been said to exist in the mixed lithates so often seen, no calculus has ever contained it. Is it not, therefore, possible that the constant filtration of lime in excess through the system may encourage the separation and deposit of lithic acid in the urinary passages? In seeking information on this point, I inquired of all my correspondents as to the hardness of the drinking-water in the various districts, and I found very varying statements. Many were sceptical as to its having any influence; but the balance of evidence was in favour of stone-cases being connected with hard drinking-water. I have seen so many instances of persons who have come to reside in Norfolk rapidly acquiring the lithic diathesis; of others who lose the tendency immediately they leave the county; and of others whose tendency varied with their residence even in the district while the habits of living have remained the same,—that I know not how to doubt the effect of the drinking-water on them. Against this view, it has been urged that, if hard waters had any effect, they would show it in males and females equally; that hard waters prevail largely over soft in most places; and that the drinking of hard waters predisposes rather to the oxalic and phosphatic than to the lithic diathesis. In reply to the first objection, it may be said that all influences act more powerfully on men than on women, and that renal, if not vesical calculus is frequent amongst women; that, although three-fourths of all drinking-waters may be hard, the waters coming from the chalk may have some special peculiarity, and that in other places, as in Ireland, the hard waters may be counteracted by other favourable circumstances of food or drink. Moreover, in the midland districts, where, I believe, the water is very hard, I have shown that stone is also very prevalent. As to the effect of hard water in leading to the oxalic or phosphatic diathesis, as described by Dr. G. Harley and Dr. Murray, I can only say that, in my experience, it is not the fact in this district. I have now operated for stone in nearly 200 cases, and I can only call to mind three cases in which oxalate of lime calculi were removed from adults, and these cases were curious. In one the central half of the stone is pure uric acid, and the outer half oxalate of lime, and this patient left Norfolk, probably with an uric acid stone in his bladder, to reside in North Wales, and immediately the uric acid became covered with oxalate of lime; the second case was in a Norfolk man, who also had resided out of the county; and the third was a private in a Dragoon regiment, who had very recently come to live here.

I leave this question of the effect of hard waters, therefore, as an undecided one, requiring fuller investigation, and especially the tracing the absence or prevalence of stone in other counties, and connecting it with local influence or endemic causes.

Lastly, I have to say a few words on hereditary tendency and family predisposition as a cause of stone in this county; and here I cannot help believing we have an influence acting slowly but potently. I can understand, and would maintain, that the hereditary influence must be but slight as to its immediate effects, and must probably require the other favouring influences mentioned to act at all; but with them, in the course of generations and centuries, it would probably so grow and develope as to create in part the admitted abundance. Let me put the proposition in another way. Could we remove the present population of Norfolk into Ireland, and import the same number of Irish into Norfolk, it is probable that no great change would quickly follow in the respective manifestations of the lithic diathesis; but it is most probable that, in course of time, owing to the absence of endemic influences, the Norfolk diathesis would not maintain itself in Ireland, and and the Irish substitutes here would as certainly acquire our tendency. I cannot appeal to statistics on this point, and therefore I may be excused for again referring to my own experience. I have never operated on a father and son, but I have very often traced the disease back to father and grand-

father. In five instances I have operated on brothers; and in four other instances I have operated on one brother, and other surgeons on another. Mr. Clubbe, of Lowestoft, has given us a curious history of a stone family. Three brothers were cut for stone by Mr. Clubbe; a fourth passed a stone; a fifth child died, aged three months, with every symptom of stone; a female child now has vesical irritation and bloody urine; the father and mother are constantly passing large quantities of lithic acid; the grandfather passed one stone, and the grandmother seven; a great-uncle was cut for stone, and six uncles and four aunts all suffer, either with fits of gravel or from lithic deposits; and, to finish, a cousin passes calculi. (See *Lancet*, July, 1872.)

There is considerable historical testimony in favour of this hypothesis. We know that Montaigne and his father both died of stone in the bladder, and we remember how he moralises on the incomprehensible wonders of the hereditary transmission of mental and bodily resemblances and infirmities. The celebrated minister, Sir Robert Walpole, and his brother Horace (who once represented this city in Parliament), were both afflicted with stone, and both resided in this county; and their mother also had stone.

What we know of the genesis and growth of stone would lead us to acknowledge both constitutional and local causes; and there is surely as much inherent probability in favour of its hereditary transmission as in that of gout, of cancer, or of scrofula. The difficulties in the way of admitting this influence in one case equally, or nearly equally, exist in the others, and are principally those which beset the whole question of inherited predisposition to disease. Dr. Richardson, indeed, objects to this theory, on the ground that stone is far less frequent in females than in males; whereas the tendency, he says, from the parent should pass alike to male and female. To this it may be replied, that the same influences which govern the transmission of gout chiefly in the male issue are equally dominant in the case of stone; and these influences consist in the harder living and the harder life, the greater exposure, and the rougher work of men beyond women. Besides, although the relative proportion of *vesical* stone in males and females is about 25 to 1, it is far less disproportionate as regards *renal* stone. I cannot, of course, give the relative proportion in the latter case; but it is unquestionably the fact, that renal calculus in the female is common in this district.

Time warns me to conclude. Permit me to sum up by saying that in every part of the British Isles there is, so to say, a film of lithuria; that constitutional and individual causes act everywhere; that, in some places, local and endemic influences co-operate to thicken the film into a decided layer; in others, the constitutional tendency is counteracted by the local conditions. In this particular district, the local favouring influences consist, to a very trivial degree, in the cold climate; in the universal consumption of malt liquor; possibly, I will even say probably, in the constant daily use of exceedingly hard drinking-water; and, lastly, in the accumulated effect of hereditary predisposition.

I cannot, however, pretend, in what I have written and read to-day, that a full and complete explanation of a very interesting and important fact is to be found. The subject is so abstruse in itself, so mixed up with profound physiological and chemico-vital processes, so intimately associated with what essentially we know so little about—viz., the nutrition, the growth, and the decay, of tissues and organs—that, in the present state of knowledge, we must, I fear, admit our darkness, and search and strive for increased light. I may, however, hope that I have stimulated, if I have not satisfied, the desire for fuller information; and if, by the help of such additional facts as have been adduced, and by the exposure of some errors and vague theories, the future search for truth may be made easier, I am content to believe that towards this end I have made a slight contribution, and have not wholly wasted a golden opportunity, or overtaxed your indulgent patience.

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Koumiss in Phthisis Pulmonalis.—In the *Bulletin de Thérapeutique* for July 30, M. Urdy gives a favourable account of some trials that have been made with this agent in Prof. Chaufford's wards at the Necker Hospital. Only eight cases have as yet been so treated, but in these considerable amelioration has been observed, effects very similar to those produced by cod-liver oil having resulted from the employment of this more palatable substance.


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# Medical Times and Gazette.

SATURDAY, AUGUST 15, 1874.


## THE ADDRESSES AT THE BRITISH MEDICAL ASSOCIATION.

Again we open our pages with great pleasure to the addresses delivered at the meeting of the British Medical Association; and, so far as the laws of space will allow, to an account of the meeting and the various work done during it. Once before—nearly thirty years ago—the Association met in Norwich, and those among its members who can remember that meeting may look with legitimate pride "on that picture and on this," and point out with some exultation the growth of the Association in numbers, strength, influence, and importance since those days. Then it was a Provincial Association, now it is British; its numbers then were comparatively small, now it consists, we believe, of some six thousand members, and is an active, watchful, and powerful body; then it had no journal or "organ" of its own, but now who does not know the *British Medical Journal?* We will leave it to others, however, to draw out more fully, if it please them, a comparison between the Provincial Medical and Surgical Association of 1846 and the British Medical Association of 1874, and we will turn our attention to the addresses this year delivered at the meeting in the old city of Norwich.

First, in time and in place of honour, comes of course the Address by the President, Dr. Copeman. He made naturally a few remarks, with which everyone will sympathise, on the difficulty the President must feel, year by year, in finding topics on which to address his audience; for, as we have before observed, whether he be physician or surgeon, his own familiar field of practice is entrusted to some other eminent man, local or metropolitan, who gives an address in medicine or surgery, and the most familiar lines of thought and work of the President are, partly at least, closed to him. The main part of Dr. Copeman's address was on the paramount necessity of sanitary measures; and he illustrated this part of his address by some graphic and painfully telling instances of the appalling tragedies sometimes enacted when zymotic

disease enters a household, the members of which have been exposed to the subtle influences of contaminated air or water. In connexion with these subjects the President suggested that the Association might help to enlighten and guide the Government on the best mode of selecting and appointing medical officers of health; and then he pointed out two ways in which the strength and force of the Association may be employed so as to aid the advance of medical science. "Two things," he observed, "strike me as especially needful: first, that we should attempt the elucidation of many phenomena we meet with, by earnest physiological research; and secondly, that "we should endeavour, above all things, to add to the not too ample store of practical facts in the use of remedies for the cure of disease." With reference to the first, he remarked that for physiological research men must be "free from all anxiety about the ways and means of providing for their daily wants and necessities," and from the cares and troubles of daily practice; and he expressed the hope that the Association would, ere long, find means "to supply the necessary funds to a certain number of young and healthy minds, congenial to the work, to enable them to devote their time and energies to physiology as a separate study." In order to effect the second thing needed, "the study of the effects of medicine upon the human body, when employed for the cure of disease," the President suggested the appointment of a selecting and judging committee. "Scarcely anything," he said, "could be more useful to us than an accumulation of reliable facts in physic; and if each one of us were to contribute what he knows, or may know, of a certainty in this respect, and such contributions were placed in the hands of a committee, who would collate them, and publish in our journal such of them as might, after strict and careful examination, be proved of good foundation, a great service would be done to practical medicine, and a vast boon be conferred upon the public at large." It would be ungracious to criticise the suggestions of a President; and we are not at all disposed to take up the easy *rôle* of a mere objector; so will only say we entirely agree with the President, that if a committee can be found who will sift out, and hand to us, proved, reliable facts of general application in therapeutics, they will render an immense service to practical medicine, and thereby to the public. Dr. Copeman concluded his interesting and instructive address by a short reference to Mr. Crosse's presidential address in 1846, some account of which will be found also in our pages last week.

To Professor Russell Reynolds the Association gave the task and honour of delivering the Address in Medicine; and his most admirable and philosophic discourse will be eagerly read and studied wherever medical journals penetrate. In style and matter alike it deserves and will command attention; and among its readers not the least eager will, we venture to say, be those who had the pleasure of hearing it—eager to bestow on it more and closer attention and thought than could be given while hearing it. We may be permitted to say that the address is in the main an eloquent and forcible defence of and appeal for belief in "life," as a special, distinct, and, as yet, uncomprehended force or property; in man as a special, distinctive being; and in individuality; and also as a defence of a belief in the specificity of disease. It would be impossible to give, in the space at our command, anything like a fair or full *résumé* or abstract of the address, and we find that in reading it we have marked as deserving of special notice and quotation a great deal more than we can deal with; we must be content with making a few brief notes here and there.

With respect to his first topic—Life,—Dr. Russell Reynolds, after describing past and present doctrines, says:—"But, granting that we have removed much of the traditional mystery which obscured the facts of life, that we have resolved many so-called living actions into chemical and physical processes, and have described them in other than 'vital' terms, it may still be questioned whether or no we have advanced many steps in the solution of the ultimate and real mystery of life. The tendency of the present day is to believe, and act upon the belief, that we have done so; and, as it seems to me, to push aside awkward facts as irrelevant or unreal, and to smother questionings by representing them as either solved, insoluble, or worthless. . . . . With regard to life, we have drifted into a sort of belief that it is to be decomposed, explained away, or got rid of; and that our true line of action is to be found and followed by such a belief in the future results, rather than in the present or past facts of science;" and he thinks that this state of mind affects us injuriously as physicians and surgeons, and proceeds to point out two evils which result from it. "The first is, the growing disregard of what may be termed the 'subjective symptoms of disease'; and the second is the effect which such frame of thought exerts upon therapeutics." He points out forcibly and well, and does well to point out, the danger and the loss of paying no heed or too little heed to a patient's ideas, emotions, feelings, and physical sensations. A patient's story of his illness may be made up of fears and dreads, of a "consciousness of deep unrest," of a lessened sense and consciousness of power, intellectual and physical, of a dread of impending evil, and other miseries; and because "we have physically examined thorax, abdomen, limbs, and excretions, and have found in them nothing wrong; because we have looked at the retina, examined the limbs electrically, traced on paper the beatings of the pulse, weighed the patient, and have not found him wanting," we are perhaps too apt to be content to assure the patient that there is nothing "organically wrong," and to urge him to disregard all his "nervous" feelings; while these sensations and fears may be in truth symptoms of the gravest import—symptoms of the approaching breakdown of mind or body. Again, the practical ignoring of "life"—that is, the outcome of the modern views taken of the correlation of vital and physical forces—may, and does, lead to misdirected treatment, to efforts to elicit vital action, when the object ought to be the conservation of vital force; and it leads also to the overlooking or ignoring "of many of the most important causes of disease."

Dr. Russell Reynolds next shows that, "by failing to see the speciality of the nature of Man, we underrate or ignore (*a*) much of the etiology of human suffering; (*b*) are often misled by the results of observations upon animals; and (*c*) are in danger of misinterpreting the facts of the most serious maladies that may afflict our fellow-creatures." We must recognise in man his true relation to the world lying round and about him—"which in many of its forms of life comes so near, but which is yet so far removed from him in his higher phases"—if we would "duly understand his sorrows, or, whence they come, in such way as to prevent them, or relieve them when they are thickly hedging him about."

Dr. Reynolds next directed attention to the influence which the belief in "Individuality" has exerted in the past, and still exerts in the present, history of pathology; and to the effect which a disbelief in the individuality of each human being seems likely to produce on the future of our science and art. Allowing that the importance and value of a knowledge of the personal and family history of each individual patient may have heretofore often been overrated, he thinks that now there is a danger of such knowledge being underrated. He holds that "that which has conduced the most powerfully to a disregard of personality and idiosyncrasy in the study of disease, is the prevalent adoption of the statistical or numerical method in the processes of pathological investigation," and points out the danger "of overrating the value of statistics, and of being led astray by their apparent precision, which exists only with regard to masses." Daily

experience teaches us, he observes, that each patient must be examined for himself and herself, and that nothing short of a knowledge of the individual will be of real service to us, if we would understand and treat disease. "We are all of us alike, yet we are all dissimilar." And he pertinently asks "whether or no we would not sometimes trust ourselves in our sufferings to someone who knew us well and had known us long; who knew our parents and our belongings; and who, with no special skill in the use of many implements whose names may end with 'scope,' hit out some common-sense line of treatment, the result of much experience and far-seeing, than commit ourselves to the care of the most highly trained graduate in medicine, who could see our retinæ, trace our pulse, qualitatively and quantitatively examine our excreta, record our temperature, and bring to bear upon our case the last generalisation of the latest writer on our peculiar malady"? He opines that we should; or that, at any rate, "we should like to combine, if we could, the guidance from both sources—we should be glad to know all that our younger acquaintance could teach us; but we should also like to fall back upon the wisdom of our older friend."

Finally, the learned Professor argues that, "by an unsound application of the idea of the Specificity of Disease, we may on the one hand (*a*) sweep away distinctions which are facts of pathology, and on the other (*b*) raise up or lay down lines of demarcation which are unreal."

And, concluding eloquently his eloquent address, Dr. Reynolds observes that, "often when most sorely troubled with the surrounding mystery—the abiding mystery—that shrouds the details of our knowledge of both man and life, we find in our own consciousness, our thoughts, and feelings, that which may enable us to help our fellow in his sorrows, relieve him in his sufferings and fears, and banish from his mind and heart the clouds that may sometimes have gathered, so darkly, around our own. And, having this sympathy, and holding in our recollection and present thought those phases of our own and of other lives—which we know full well, but which we cannot reduce to words—we shall be the better fitted to explore and unravel the whole series of phenomena which present themselves in the lower ranges of pathological investigation. The method of such physical research, as well as its results, will check us when we may be disposed to drift away into the mist, or to soar into the clouds; will help us to cultivate exactness in all directions of inquiry, and so contribute to the science and art of Medicine, which, in spite of all its failures, misdirections, and missing links, is yet one of the greatest boons that man has been the means of conferring upon man; and which, we believe, will in the future far transcend, in its benefits to mankind, all that we have known of its doings in the past."

We must be content this week to say only a very few words about Mr. Cadge's most valuable Address in Surgery. A Norfolk surgeon giving in his own county an address in surgery most naturally, and almost inevitably, will take calculus, from some point of view, for his theme; and we may be glad and grateful that Mr. Cadge followed this natural bent of the Norfolk surgeon's mind. He avoided, indeed, the question of treatment of stone, which has been and is so frequently treated of, and took for his subject a question of wider importance and interest, and one which has been much less often and less fully discussed—viz., the causes of stone and of the diathesis out of which stone arises; and having regard to the form of stone of most frequent occurrence, he further limited his inquiry to that form. He set himself these two questions—"Is lithuria, as represented by cases of stone in the bladder, more common in this district than in any other part of the United Kingdom? and, if it be, what explanation can be given to account for the excess?" And in answer to them he gave a most admirable and instructive address, full of carefully collected information, and close and scientific observation and thought. We hope to be able to consider it somewhat more fully next week.

## EDUCATIONAL AND CHARITABLE SCHEMES IN SCOTLAND.

Edinburgh, the city of educational and charitable hospitals, is about to add another to the long list of its eleemosynary institutions. Recent movements towards university and hospital extension have shown that the spirit which Edinburgh early manifested in the projection and realisation of schemes of educational and charitable administration still exists amongst those who are interested in the northern capital. The success of the new hospital scheme, and the generous response to the application for subscriptions for the extension of university buildings, show the continued existence in Edinburgh society of the generosity which actuated Monro and Drummond and their contemporary citizens at the time of the erection of the present infirmary. For several years Edinburgh committees have been soliciting from all who are connected with or resident in that city subscriptions for the extension or reconstruction of charitable and educational institutions; and instead of committees being tired of collecting, and subscribers being tired of paying, a new scheme for the building of a Hospital for Incurables has suddenly been projected as an addition to the several extensive and expensive proposals which for a longer or shorter period have been constantly held up to the Scotch public as affording a favourable opportunity for demonstrating financially their charity and their patriotism.

It appears that it has been proposed in some quarters to erect a single central hospital for incurables throughout the whole of Scotland. For several evident reasons this suggestion does not meet the unqualified approval of the influential portion of the medical profession in Edinburgh. Consequently the leaders of professional opinion in that city have publicly expressed their disapproval of the central scheme, and adduced several powerful arguments in support of their course of action. Perhaps the most important reason is that which appears last in their published list, namely—"That the present is a most unfavourable time to raise money for any vast undertaking, as, both in Glasgow and Edinburgh, the public are engaged in providing by subscription for hospital and university extension of great magnitude and importance." There is no doubt that both Edinburgh and Glasgow are being canvassed to the utmost in the way of procuring subscriptions for charitable and educational purposes, and the effect of introducing a new scheme to the attention of communities whose generosity is notoriously limited by prudence, might be the surest means both of preventing the success of the new project and of jeopardising the consummation of schemes which at present promise to reach a successful issue.

Perhaps the very success of the Edinburgh and Glasgow appeals to the public has been the means of suggesting the idea of raising subscriptions for a central hospital for incurables. If so, such a method of procedure is a bad one—at least in Scotland. If the Scotch people find that a praiseworthy generosity on one occasion is to be made the excuse for a repeated call upon them for the extension of charitable institutions in rapid and perhaps competitive succession, they will simply subject their pockets to a premature and obstinate occlusion. The general opinion regarding a Scotchman in relation to public subscriptions is that

> "He gives but little here below,
> Nor gives that little long."

And though the open-handedness recently shown towards the Edinburgh and Glasgow projects scarcely supports the first part of the sentiment, any important addition to the number

of the charitable schemes already on foot might, in proving the second part of it, lead to the unfortunate collapse of subscription-lists which at present are in a flourishing condition.

On this ground, therefore, and on several others adduced by the almost unanimous body of medical professors and lecturers in Edinburgh, we think that a judicious step has been taken in discountenancing the project of soliciting subscriptions for a central hospital for incurables in Scotland. But though the scheme for providing a central hospital is open to grave objections, dependent both upon the unfortunate choice of time in its proposal and the unavoidable existence of great drawbacks in its administration, the same qualifications do not affect a system providing for the construction of smaller local hospitals. The idea of a hospital for incurables sufficiently large to rank as a national institution in Scotland is one inexpressibly gloomy. If any class of patients require the occasional presence of their friends to revive in them the pleasures of memory, it is the class for whom hope provides no prospect of near or distant amelioration, and who, by their very residence in a hospital for incurables, may be recognised as acquiescing in the verdict of permanent disability. Whatever position might be chosen as the site of a central hospital for incurables, providing a retreat for patients from all quarters of Scotland, it could not fail to be so distant from many parts of that country that, as far as intercourse between patients and their friends was concerned, it might almost as well be situated in Siberia. The class of patients who would inhabit such a hospital would consist of those whose friends would be poor, and utterly unable to afford the expense of visiting them from distant parts of the country, even if travelling expenses were all that they would be called upon to disburse. Large general hospitals and large lunatic asylums are at the best depressing institutions, but in them increased aggregation often leads to greater facility and success in treatment; and in them, unless the patients are quite unable to manifest any sentiment, the hope is always present with the sufferer that sooner or later he will be able to resume his place in the family circle and enter upon a new lease of social activity and comfort. But a large central institution, in which from all parts of a country like Scotland—where physical conformation and the mental constitution of the people develope a strong attachment to localities and friends—people suffering from incurable maladies, and in many instances utterly beyond the reach of their relatives, would be congregated, would be a building over the gateway of which Dante's motto might be very applicably inscribed,—

"All hope abandon ye who enter here."

So great, in fact, would be the tendency to depression amongst such a national assemblage of miserables, that after great provision for the central entertainment of incurables, the latter might be infatuated enough to suffer and die at home rather than add banishment to the number of their miseries.

On the other hand, the project of having smaller hospitals for incurables in the immediate neighbourhood or within easy distance of their friends is a praiseworthy one; and we are glad to see that an Edinburgh committee has not only made a proposal in this direction, but has already purchased a building sufficient to form the nucleus of a local hospital. This latter movement is supported by many men of the highest position in Edinburgh society, associated with several professional men eminently qualified to advise the benevolent in the expenditure of their means for purposes of hospital extension. Consequently, it may be considered that at no distant period a hospital for incurables will be found in the neighbourhood of Edinburgh, analogous and, as far as requirements go, equal to the magnificent convalescent house which has risen from a beginning almost, if not altogether, as modest as the nucleus of the hospital for incurables. But it will be advisable not to enter enthusiastically upon the new project until sufficient means have been obtained to carry out the extension of the Edinburgh University buildings. Previous to an application to Government for assistance in the extension scheme, it is desired that a sum of £100,000 should be subscribed. Of this amount £65,447 has already been contributed. Attention is drawn to the fact that a very large proportion of this amount has been subscribed by persons not resident in Edinburgh, and it is also stated that large subscriptions have been promised by men residing in London and the colonies. The latter fact is only another manifestation of the lasting admiration which all Scotchmen extend to Edinburgh and her institutions. That the citizens of Edinburgh have not yet fully contributed their amount can only be due to temporary and accidental causes, and we have no doubt that they will yet subscribe liberally when they remember that their University is their greatest ornament; and if they assist in making sufficient provision for its educational and experimental requirements, they may rest assured that the fame of its future will surpass that which has been long and universally acknowledged as its due.

## THE WEEK.

### TOPICS OF THE DAY.

The will of the late John Wyatt, C.B., Regimental Surgeon-Major of the Coldstream Guards, is worthy of putting on record. He was a man of indomitable perseverance and courage. For a long period he had been in very ill health, but, we believe, performed his duties to the last. Those who knew him best, and who could esteem his better qualities, could not fail to be impressed with the conviction that he on every occasion assumed to be the moving spirit in all the transactions in which he was engaged. If there be something of affectation and self in his last will and testament, it must be admitted that he was consistent even to the last. The will is dated June 26, 1873. He died on April 2 last, at Bournemouth. The will was proved on the 17th ult., by Sir Henry William Peek, Bart., and John Kendall, the executors, the personal estate being sworn under £10,000. The testator desires to be buried in the full-dress uniform of his regiment, in which he had passed the best part of an eventful life, and that the Bible given to him by his wife may be buried with him; that the horses used at the funeral may not be decorated in any manner; that the hired attendants may not wear any hatbands or scarves; that each person attending his funeral may wear only a black band of medium width—crape for relations and cloth for friends—round his hat, black gloves, and a white rose or camellia, or other white flower in the buttonhole of his coat, as he wishes the ceremony to be as free as possible from all gloomy associations, and to be considered more as an occasion of rejoicing than mourning, in accordance with Holy Scripture, especially as he desires that no description of widow's cap or any crape on her dresses may be worn by his wife, nor any particle of crape on the clothes of any of his relations.

Dr. Whitmore, Medical Officer of Health for Marylebone, in his monthly report, ending July 31, shows that the deaths were equivalent to an annual death-rate of 23·09 per 1000, or rather more than 2 per 1000 in excess of the death-rate of the corresponding month last year. This increase is due entirely to the large number of deaths from diarrhœa, which destroyed forty-three young children. Nearly all these children were under the age of one year, and the majority of them had not reached six months. The sudden increase of temperature which took place in the middle of the month, acting upon these infants, physically weak, and exposed to the noxious influences by which many of them were surrounded, affords a sufficient explanation of the large mortality from this disease. Three deaths were registered from choleraic

diarrhœa. One was that of an eminent physician, who had been for a number of years in failing health; the second was that of an infant, which was stated in the certificate to have been accelerated by the hot weather and want of breast-milk; and the third was registered as English cholera, occurring in an infant six months old, and ending fatally six hours after the first attack. In these cases there is nothing to justify the apprehension which appears to be entertained by some persons that cholera is likely to visit the metropolis during the ensuing autumn; on the contrary, the great reduction in the number of deaths from diarrhœa, which has resulted as a consequence of the fall in the temperature during the last week, encourages a well-grounded hope and belief that during this year at least the epidemic will not reach us.

Dr. Whitmore in his sixth quarterly report of the analysis of various articles of food and drink brought to him for analysis by the inspectors, states that they consisted of sixty-one samples, comprising sweets, milk, coffee, mustard, tea, sugar, and capers. No single article examined was adulterated to such an extent as to justify legal proceedings being taken against the vendor; on the contrary, the majority of the samples were genuine and of fair quality.

Two young female Circassians, who have been educated at Kiev, are now among the women students in the Russian Academy of Medicine and Surgery, and propose, after qualifying themselves, to return to their own country to practise medicine.

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CLOSE OF THE SUMMER SESSION AT EDINBURGH UNIVERSITY.

On Saturday last the great capping ceremony which marks the termination of the summer session at Edinburgh University was carried out with all the pomp and circumstance which render it so attractive to Edinburgh people. Medical degrees were conferred on over 100 graduates, and the usual annual address was delivered by Professor Spence. Mr. Spence recommended the young graduates to live down the stigma of professional dissension under which doctors unjustly labour, by courtesy and forbearance, so far as may be compatible with the interests of truth and self-respect. Though admitting that some reform was required in medical education, Professor Spence disapproved of the sketch thrown off by Professor Huxley at Aberdeen, and suggested that one great step towards the advancement of medical education would be effected "by allocating students by subdivisions and in rotation to the different physicians and surgeons." Such an arrangement would certainly be very advantageous to students, as the present system is one which renders it at many times difficult for men to obtain dresserships and clerkships with the surgeons and physicians under whom they would best like to study. A clerk or dresser who has with difficulty obtained a place on the hospital staff of a physician or surgeon, naturally likes to remain upon it, and the clinical teachers themselves prefer those who have become familiar with their modes of procedure to such as may be regarded as raw recruits. The consequence is, that the practical part of hospital teaching is often unfairly distributed amongst the students, and even for those who obtain coveted posts the disadvantage arises of having a medical or surgical training complete of a kind, but wanting in breadth by the absence of comparison of one method of practice with many others perhaps less popular but equally useful. The graduation address of 1874 would have been very ungracious if it had not contained a reference to the retirement of Professor Bennett. Consequently we find Mr. Spence giving expression to a temperate and appreciative eulogium on his late colleague; and the loud applause which followed the reference evinces the high estimation in which the retired Professor is held, both by the students, the profession, and the Edinburgh public. In conclusion, Professor Spence commented on the internal activity of the University, as shown by the establishment of a degree in public health, and referred to the pleasing evidence of the public interest in the University, satisfactorily manifested by the hearty response to appeals in aid of the extension scheme. He trusted that when that scheme had been completed the University would be able to afford to its graduates every opportunity of study and research, such as they are now under the necessity of prosecuting at foreign schools owing to the comparative absence of accommodation and material for the prosecution of special investigations in practical science.

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NEW ACT TO REGULATE SLAUGHTER-HOUSES, ETC., IN LONDON.

The very last day of the session just terminated is responsible for an Act of Parliament of considerable sanitary importance. This is a Bill to regulate and otherwise deal with slaughter-houses, and certain other businesses in the metropolis. If any person establishes *anew* the business of a blood-boiler, bone-boiler, manure manufacturer, tallow-melter, or knacker, he is to incur a penalty not exceeding the sum of £50, with a like sum for every day the same is carried on. If any person establishes *anew*, without the sanction of the local authority, the business of a fell-monger, tripe-boiler, or slaughterer of cattle, or any other business which the local authority may declare, by order confirmed by the Local Government Board, to be "offensive," he, as well as the person carrying it on, will be liable to similar penalties. By-laws are to be made, and legal proceedings taken in courts of summary jurisdiction. The same Act further amends the law as to the renewal of licences for slaughter-houses already existing in the metropolis; notice must be given of all applications for the same, and for all objections. A business is to be considered to be established *anew* if removed to other premises, or discontinued for a period of nine months, but not if the premises in which it is carried on are rebuilt in the same area.

This Bill, which is actually in force at the present time, will be of great use in restraining unhealthy trade nuisances, which, from their nature, are, as a rule, always pitched in low and crowded neighbourhoods, already in a bad sanitary state, and will strengthen the hands of the various local authorities in dealing with their suppression.

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DUBLIN MAIN DRAINAGE.

An influential meeting of the ratepayers of Dublin, under the presidency of the Right Hon. Maurice Brooks, M.P., Lord Mayor, was held at the Mansion-house on Tuesday last. The object of the meeting was stated to be "to take into consideration the advisability of calling upon the Corporation to discontinue all further expenditure in respect of their Main Drainage Act of 1871, and to join with the citizens in a memorial to the Government for the appointment of an engineer of eminence and experience, not previously consulted in the matter, to investigate and determine whether a scheme of Liffey purification may not be devised, which, while efficacious for the purpose, shall be better suited to the circumstances (financially) of the city of Dublin than that sanctioned under the Act of 1871." One of the leading features in the meeting was the remarkable unanimity with which all the speakers—except one gentleman, himself formerly a member of the Town Council, and three or four existing members of that enlightened body—condemned the Corporation for supineness and neglect in a matter of such pressing importance as the abatement of the Liffey nuisance. Mr. A. M. Sullivan stood forward as the champion of the Corporation of Dublin, which he represented to be a much-maligned and injured body. His policy of obstruction to the securing of the object of the meeting was in the end effectually checkmated by the unanimous adoption of a resolution proposed by Mr. George

Woods Maunsell, and seconded by Mr. Thomas Pim, jun., to the effect—

"That a committee from this meeting be appointed to consider the advisability of memorialising the Government for the appointment of a Royal Commission, or otherwise, to ascertain whether a scheme of Liffey purification could not be devised, which, while efficacious for the purpose, shall be better suited than that sanctioned in 1871 to the circumstances (financially) of the city of Dublin."

A committee was then elected, of which Sir Arthur Guinness, Bart, M.P. for the city of Dublin, the Hon. David Plunket, M.P. for Dublin University, Dr. Grimshaw, and several leading citizens, were chosen members.

It is curious that good was effected by this meeting before ever it was held; for on Monday last the Corporation, acting evidently under the pressure of public opinion, agreed to put a stop to the large expenditure which they have incurred during the past three years, in connexion with the now notorious Main Drainage Scheme of 1871. Let us hope that the public spirit of the citizens of Dublin, in thus practically taking the question of the purification of the Liffey into their own hands, will in due time meet with its reward.

### EDINBURGH UNIVERSITY CLUB IN LONDON.

The quarterly dinner of this Club was held at St. James's Hall Restaurant on August 1 (Capping-day), at 7 p.m., Professor Cobbold, M.D., F.R.S., in the chair. Among the visitors were Sir Bartle Frere, Professor Mariette (King's College), Dr. Vandyke Carter, and Mr. Hortin. After the usual loyal toasts, the chairman proposed "The Edinburgh University," and commenced by remarking that, although the University was founded in 1581, "it was not until towards the close of the last century that our *Alma Mater* acquired her world-wide fame—a fame which in earlier times was intimately associated with the well-known names of Dugald Stewart, Adam Ferguson, John Playfair, Robert Whyte, the Cullens, Gregorys, Duncans, Hopes, Blacks, and Munros." These men were but samples of a long roll of the older Scottish *savants;* and only a little later on the Faculties of Arts, Law, and Theology could severally boast of such representative men as Thomas Chalmers, John Wilson, Sir William Hamilton, James David Forbes, and for a time, as Principal of the University, the illustrious Sir David Brewster. Next, referring to the important part taken by the Medical Faculty in maintaining the reputation of the University, the chairman passed in review the labours of James Syme, William Pulteney Alison, William Gregory, Edward Forbes, and especially John Goodsir; adding that even now there were fortunately left to us some honoured names, which served as it were to connect the present with the past. Conspicuous amongst these stood that of Sir Robert Christison, who was still a tower of strength to the University. "Nor," he added, "should we overlook in this connexion such eminently gifted teachers as Professors John Hutton Balfour and John Hughes Bennett. Let us offer our thanks to the distinguished men who are now doing their utmost to maintain the reputation of our *Alma Mater;* let us tender our hearty acknowledgments to Professors Lister, Spence, Turner, Crum-Brown, Sanders, Maclagan, Thompson, and others of the Medical Faculty; and let us assure the successor of J. Hughes Bennett, whoever he may happen to be, that, when he is elected, he will have the warmest sympathies which the Edinburgh University Club have it in their power to offer."

### FOOD ANALYSIS IN HACKNEY.

Dr. Tripe, food analyst for the district of Hackney, in his report for the year ending June 24 last, states that during the year he had analysed 123 articles of food and drugs, comprising eighteen of butter, forty-seven of milk, eight of bread, twelve of tea, six of coffee, one of chicory, twelve of mustard, eleven of sweets, one of lard, one of pea-flour, and six of milk of sulphur. A large proportion of these were more or less adulterated, but the adulteration was less frequent and smallest in amount in the samples lately analysed. The total number of convictions obtained for selling adulterated articles is eleven. Of these two were for selling adulterated butter, five for selling milk mixed with water, one for vending tea containing stones and magnetic oxide of iron, and three for selling mustard which was mixed with flour, turmeric, and cayenne pepper.

### TESTING THE PURITY OF WATER IN THE ROYAL NAVY.

It is reported that, on the recommendation of the Director-General of the Naval Medical Department, the Lords of the Admiralty have ordered that in future all men-of-war carrying a medical officer shall be furnished with an apparatus by which the water supplied for the use of ships' companies can be subjected to analysis with a view of testing its purity. We are surprised to learn that, in the present advanced state of medical science, it has only now been considered necessary to provide this apparatus in the navy. For many years nearly all large military stations at home and abroad have been furnished with the means for testing water, in the shape of a chemical cabinet arranged by Professor Parkes, of the Royal Victoria Hospital, Netley; and as all candidates for the Naval Medical Service now undergo a term of probation at that establishment, they must be intimately acquainted with the different tests employed and the method adopted for ascertaining the purity of water in the sister service.

### SUCCESSFUL LIGATURE OF THE INTERNAL CAROTID ARTERY.

Dr. H. B. Sands, Surgeon to the Bellevue Hospital, New York, records a case of successful ligature of the internal carotid artery for secondary hæmorrhage, the vessel being secured above and below the bleeding point in its wall.(a) The hæmorrhage occurred ten days after the removal of a scirrhous tumour from the neighbourhood of the left angle of the jaw, with disarticulation of the corresponding ramus, in a man of fifty-three. Fortunately the bleeding was immediately arrested by skilful compression; whereupon Dr. Sands proceeded to apply a ligature to the internal carotid above and below the lesion in the vessel-wall. This was afterwards discovered to be a small circular clean-cut ulceration an inch above the upper border of the thyroid cartilage. The subsequent progress of the case was eminently satisfactory. This case is perhaps unique in the history of hæmorrhage from the internal carotid.

### KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

In the *Medical Times and Gazette*, April 11, 1874, page 416, will be found the new by-law of the King and Queen's College of Physicians, providing for the examination of female candidates for a licence to practise as midwives and nurse-tenders. On Thursday, August 6, Miss Ellen Greenstreet, formerly Lady Superintendent of Nurses at Sir Patrick Dun's Hospital, Dublin, presented herself for examination under the by-law in question. She obtained the licence to practise as a midwife and nurse-tender on very creditable answering. The example thus set is likely soon to be followed in many instances. We shall be curious to see whether any of the holders of this diploma will seek to be placed on the Medical Register of the United Kingdom.

### TREATMENT OF DYSENTERY IN INDIA.

The *Pioneer Mail and Indian Weekly News* of June 10 last reports that the Secretary of State for India has addressed the Governor of Madras in reference to the despatches recently submitted, showing the results of experiments on the thera-

(a) *New York Medical Journal*, January, 1874.

peutic action of calcic quinovinate in the treatment of fever and dysentery. The Secretary of State desires that further and careful experiments be instituted as to the value of the drug in the treatment of dysentery; and the "order thereon" directs the Surgeon-General of the Indian Department to make the necessary arrangements for that purpose.

### ARMY MEDICAL SERVICE.

The following is a list of candidates for the Army Medical Service who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley:—

| | No. of Marks. | | No. of Marks. |
|---|---|---|---|
| 1. Ward, L. B. | 4841 | 9. Smith, J. A. | 3435 |
| 2. Gallwey, T. J. | 4615 | 10. Martin, J. | 3116 |
| 3. Miller, W. B. | 4290 | 11. Young, F. S. | 3105 |
| 4. Hickson, G. B. | 4265 | 12. Greene, J. J. | 3105 |
| 5. Jagoe, B. R. | 4085 | 13. McCreery, N. | 3062 |
| 6. Prendergast, J. | 4072 | 14. Gormley, J. A. | 3039 |
| 7. Pratt, W. S. | 3780 | 15. Foss, J. E. W. | 2915 |
| 8. Smyth, C. C. H. | 3568 | 16. Turner, C. P. | 2887 |

### INDIAN MEDICAL SERVICE.

The following is a list of candidates for the Indian Medical Service who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley:—

| | No. of Marks. | | No. of Marks. |
|---|---|---|---|
| 1. Leckler, H. M. | 5868 | 10. Malcolm Smith, G. J. | 4465 |
| 2. Corbett, J. L. | 5626 | 11. Lancaster, J. | 4450 |
| 3. Browne, S. H. | 5385 | 12. Yeld, H. P. | 4300 |
| 4. Mair, E. | 5339 | 13. Fullerton, J. C. | 4075 |
| 5. Benson, P. H. | 5208 | 14. Warden, C. J. H. | 4055 |
| 6. Armstrong, J. | 5125 | 15. King, W. G. | 4003 |
| 7. Warder, R. | 4825 | 16. Patterson, D. A. | 3980 |
| 8. Dawson, L. R. | 4798 | 17. Wilkins, J. S. | 3908 |
| 9. Shircore, J. C. | 4650 | 18. Barren, W. A. | 3602 |

### THE LIVER IN JAUNDICE.

Dr. Wickham Legg has recently described the changes in the liver which follow an obstruction to the flow of bile into the duodenum (Pamphlet, Lewis, 1874). He has investigated the subject both by examining the liver of patients dying under these circumstances, and by experimental researches upon the lower animals. When the bile-ducts are obstructed, the passages behind are first affected—they become dilated, both without and within the liver; cysts may be formed, and even abscesses developed, the exact pathology of which is still unsettled. Dr. Legg doubts whether the epithelium of the dilated ducts always disappears, as generally described. In regard to the colourless fluid which is sometimes found in a greatly distended gall-bladder, when the common bile-duct is obstructed—the author states that he could not detect in it the presence either of bile-pigments or of bile-acids, by chemical examination of two different specimen. The changes of the parenchyma of the liver in obstruction have hitherto been but little studied. The connective tissue grows in all cases of protracted obstruction, and Dr. Legg makes an important observation, that the starting-point of this over-growth is the place of obstruction itself, and that the degree of the over-growth depends upon the kind of obstruction. He has demonstrated this by experimental ligature of the bile-ducts in animals; and the appearances in patients dying from obstruction of various kinds seem to point in the same direction. The liver-cells themselves do not become fatty as some pathologists have represented, but atrophy and disappear. As to the effect of obstruction of the bile-ducts on the other functions of the liver, Dr. Legg has made several valuable observations bearing upon this question, and found that in cats the glycogen disappears from the liver within a few days after the bile-ducts have been tied; and that on the fifth or sixth day irritation of the fourth ventricle is not followed by the appearance of sugar in the urine.

### WESTMINSTER HOSPITAL MEDICAL SCHOOL.

An important addition to the buildings of this Medical School is being made. A new physiological laboratory, together with an addition to the chemical laboratory, are being built according to plans that have been provided, and are rapidly approaching completion. A considerable expenditure has been incurred by the lecturers, both in supplementing the grant which has been liberally made by the governors of the Hospital towards the building, and in providing the necessary fittings; but it has been wisely considered that the complete efficiency of physiological teaching is a most essential part of medical training.

## FORTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

(*From our Special Correspondent.*)

Norwich is a pleasant-looking place, built upon a site which is *bien accidenté*, as the French say; and, in truth, after a journey through the flat land of the Fens, a very much less picturesque union of castle-crowned hill and river would be charming. The town is both a manufacturing and a cathedral town, but without the extreme smoke and squalor of the one, and the dead-alivishness of the other. The Assembly- and Ball-rooms, selected for the business of the Association, are spacious and convenient enough, and if one's mind feels wandering in the middle of a discourse, one has only to turn one's eyes to the statue of Terpsichore, and another train of ideas may follow if it can.

The public proceedings began, as is now the befitting custom, with divine service at the Cathedral, when, punctually at the appointed hour, in walked Sir William Fergusson (the President), Dr. Copeman (the President-elect), Mr. Cadge, and a numerous body of professional brethren, with whom the Mayor and Corporation in state added something of municipal pomp to the procession. Of the service this is no place for criticism; the singing was excellent, albeit a young gentleman who sang—and sang beautifully—a solo from the Messiah, was a trifle too lavish of his shakes and graces. But the music seemed not happily chosen—part too thin to be impressive (as the introductory voluntary and the *Te Deum*), and part too massive to be adequately rendered by the choir with only an organ. Why not take some grave choral work of an English Cathedral musician—Purcell, Croft, or Battishall,—instead of attempting "But thou didst not leave" without a violoncello, and "Lift up your heads" without a full orchestra? The sermon was by the Rev. Canon Heaviside (whose name recalls that of one of the first London surgeons sixty years since), and was grave, dignified, and admirably adapted for the occasion. He dwelt on the impossibility of finding the secret spring of actions, the real motive force, in any combination of machinery, however delicate and well adjusted; he took a familiar example from the locomotive steam-engine, showed how impossible it was to work it without a concurrence of agents whose work must be duly measured out and assigned to them; how each separate part of the machinery had to be adapted to every other part; and he put it whether it was possible that the intelligence and forethought which had designed such an engine could be the product of an animal mechanism, which itself had grown up by the chance juxtaposition of its elements. His remarks on the beneficial work of our profession were apposite and elevating, showing how the highest example is followed when we administer relief to humanity at large, without distinction of creed, or colour, or race; how in

the only instance in which immediate relief was refused by the Healer, on the ground of alienship, it was but to give greater emphasis to His work of mercy which followed. Nay, that when the merciful gift of healing was exercised, there was no reproach as to the previous sins which had caused the disease, but the sin and its punishment were blotted out by one and the same word. Grand ideas these; and if they recall the fact that thirty years ago some squires and parsons in the South of England laid their skulls together to consider how they might eject the poor female sinner from the county hospital, it is to congratulate ourselves that warmer and truer views are now prevalent.

After the service there was a considerable gathering of old familiar faces engaged in hand-shaking and note-comparing, and asking after old friends, and in the inspection of the very excellent and interesting museum that had been collected. Great joy was expressed at the presence of Drs. Paget and Rumsey; but whether Paget and Rumsey had come back to the Association, or the Association come back to Paget and Rumsey, did not seem clear.

After a due interval spent in sacrifice at the shrine of hospitality (that is to say, after a very good dinner), the Association met in the Ball-room for the first public general meeting. Sir W. Fergusson then resigned his presidential chair to Dr. Copeman, his successor, and in so doing paid a graceful tribute to the admirable work done by provincial surgeons in promoting the progress of their art, and especially by the past medical heroes of Norwich—Gooch, Martineau, Dalrymple, Crosse,—and with a happily turned expression of his belief that their living successors would in nowise fall short of them, he resigned the chair.

Dr. Copeman began his Presidential Address with the usual, but ever true, remarks as to the difficulty of the task before him—rendered more difficult by the fact that forty predecessors had ploughed the same ground over before him—and his own unfitness for the task. After this, he welcomed the visitors to Norwich, and gave a brief outline of the various prelates, scholars, and medical men who had made the city illustrious beyond many others of greater size and population. He alluded to the bygone and present officers of the Hospital; and this led him to speak of the disastrous state of the Hospital wards from the presence of pyæmia, on which he promised us fuller enlightenment in a discourse by Dr. Beverley, which is looked for with great interest. Then followed the consideration of infectious diseases generally, and their propagation by impure air and contaminated water; and on this point he gave at considerable detail the history of several most heart-rending cases, in which he himself had been consulted, and in which the wife and half the family of some unfortunate man had been exterminated by a fever which owed its malignancy to some neglected privy which was allowed to poison air and water. From this he passed on to speak of preventive medicine, and of officers of health, and how they should be chosen: Shall a district officer of health be chosen from amongst the practitioners of a given district? This was not recommended, because of the green-eyed monster which it would provoke. The provision for sanitary advice which seemed most acceptable to Dr. Copeman was that every poor-law medical officer should be a sanitary officer in the first instance, and that in difficult, complicated, or litigated cases, a consulting opinion should be had from the nearest large town, or some other place where it could be got. Passing on to another topic, the President referred to the duty of the Association in promoting the advance of medical science, and this as individual members reporting the results of their own experience, and as an Association, by employing and paying men fresh from the schools to perform experimental researches which would be out of the power of men whose time was at the mercy of their patients. Two objects of research suggested themselves—the problems of physiology or pathology, and scientific therapeutics. As an instance of the former, he quoted the phenomena of fever, and propounded a theory to explain them, which was identical with Cullen's once famous theory, that fever began with a spasm of the extreme bloodvessels. He frankly admitted that he had no experimental or other special evidence to offer in support of this, but he described (if I understood him aright) the phenomena of an ague fit as a type of fever, and seemed to intimate that the initial or shivering stage was the first step, on which the subsequent phenomena depended. But I believe the fact to be, that ague is no type of fever in general; that no rigors or coldness need precede the heat of fever, and that phenomena may follow one another regularly without any necessary connexion of cause and effect. As to therapeutics, he gave a gentle caution to the practitioner who sees as the effect of medicine just what he wishes and expects to see, but which others unluckily do not see. Finally, he wound up with a grand quotation from the medical chapter of the Book of Ecclesiasticus.

I have heard Dr. Copeman's address criticised on the ground of its being deficient in breadth and depth; but so long as there is such a malady as scarlatina, which can produce such frightful ravages, and against which curative art avails so little, so long the necessity and means of prevention need to be dinned into our ears. There was a little discussion on formal business, and a protest against any of the grants for scientific purposes being devoted to what might be called vivisection. At this debate I was not present, and lost the opportunity of hearing the reverend and eloquent Irish professor, the Rev. Samuel Haughton, whom one can seldom hear without wishing to hear more.

On Wednesday morning the event to be looked for was Dr. Russell Reynolds's Address of Medicine. If your readers derive half the pleasure from reading it that I did from hearing it, they will still have a very great treat. It would be impertinent to attempt to analyse, whilst writing to save a post, as I am doing, a discourse marked by the greatest breadth, and judicial moderation and fulness. He took as his main topic the extent to which our treatment of disease is modified by our opinions as to Life, Man, Individuality, and the Specific Nature of Disease. He showed how, in times past, erroneous or exaggerated views of the nature of Life, of the nature of Man as distinct from the lower animals, led to mistakes in pathology and practice; and equally repudiated the modern narrowness which affects to deny the special force of life, and treats man as if only an animal. Under the head of Individuality, he pointed out the abuses of statistics; and in treating of the Specificity of Disease showed how certain signs detectable by common observation enable the humblest practitioner to give its name to, and foretell the future of, the disease which we know as Bright's, or as scrofula, or syphilis, although not the acutest chemist could tell the difference between a cancerous and a scrofulous organ. "Just so," he said, "take two birds'-eggs, and give them to the microscopist and chemist, and they will be found alike; whilst the bird's-nesting schoolboy will tell at a glance, by common marks, which will develope into a blackbird and which into a lark."

I must not attempt to give you the substance, but only, so far as I can, the colour of these proceedings. I am struck with the homage paid to religion by the ablest of the speakers. There seems, too, a general harmony and absence of pugnacity in the debaters, and a tone of moderation in the addresses. This was noticed in the address of Mr. Michael at the Public Health Section, in which I should be wrong not to eulogise the most able, bold, and thorough exposition of the terrific mortality from pyæmia in the Norwich Hospital, by Mr. Beverley, one of the junior surgeons to that institution.

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At the second general meeting held on Wednesday, it was

resolved that the Association should accept the invitation from the leading representatives of the profession in Edinburgh, and hold its next meeting in that city.

Then came Dr. Russell Reynolds's eloquent address, which we print elsewhere; it was listened to with unusual interest, and drew forth hearty applause.

Dr. Hughes Bennett proposed that the thanks of the meeting be given to Dr. Reynolds for his able address. Of the many discussions he had heard of this kind delivered to the Association, there was certainly no one which indicated a wider amount of thought or in itself was more suggestive. This encouraged him to remark that, like all those who had thought much on medical problems, Dr. Reynolds, from the commencement to the end, found himself compelled to dwell on what he called the mystery of life. He (Dr. Bennett) was in the habit of considering this mystery to consist in the existence of certain properties, such as power of growth in definite directions, contractility, sensibility, and mental acts. It was these properties which, as medical men, we had to study under all their varied conditions. Of their ultimate nature we know nothing. In this respect, however, there was no more mystery than that involved in all the other phenomena of nature studied by physicists. Dr. Reynolds had well dilated on the enormous difficulties which surrounded an investigation into vital phenomena, healthy and morbid; but the impression his observations tended to produce was that the means at our disposal were to a great extent of little value—for example, experiments on animals and statistics. He ventured to take a more hopeful view of the future. This Association had inaugurated an experimental inquiry to determine the question whether mercury did or did not increase the flow of bile from the liver. After two years' investigation into the action of the drug on dogs, who, it had been shown, were animals affected by mercury in exactly the same way as man was, the reply to the question was the complete demonstration that no such action existed as had previously been generally supposed. Surely it was not to be denied that this fact was a great gain to medicine. He might also adduce other facts pointing out the benefit of statistics. Dr. Reynolds had well said towards the conclusion of his address that we "want work." He was of opinion that if the Association would find means to remunerate the workers this would no longer be a want. The present state of general science was such as to enable conscientious inquirers to solve many of the important problems connected with the science and art of medicine, and he trusted that this was the direction the Association would encourage and do all in its power to support.

The motion was seconded and carried very heartily.

In the Section of Surgery, Sir James Paget, the President, on taking the chair, thanked the Association, and said that he could not refuse to preside in this section, when he considered that the meeting was this year in his native county. He wished to say something of Norfolk and Norfolk surgery as it was when he was a student. His first case-book was dated 1830 to 1834, and it was in the latter year that he left Yarmouth, after serving an apprenticeship as apothecary and surgeon.

But we hope to give his address in full next week, and will not therefore give an abstract now. It would be superfluous to say the address excited great attention and admiration.

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THE deaths registered in the eight principal towns of Scotland for the week ending the 1st inst., were 587. The corresponding week last year the number was 556.

WE understand that the Merchant Taylors' Company's Convalescent Home, at Bognor, is closed for a short time while the building is being enlarged, for the purpose of adapting it to the accommodation of an increased number of inmates.

## MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of candidates who have passed the recent examinations:—

FIRST M.B. EXAMINATION (ENTIRE).

*First Division.*—Burton, Samuel Herbert, University College; Carrington, Robert Edmund, Guy's Hospital; Keetley, Charles Robert Bell, St. Bartholomew's Hospital; Tirard, Nestor Isidor Charles, King's College.

*Second Division.*—Blake, Henry, St. George's Hospital; Fox, Thomas Colcott, University College; Freund, Percy Herbert Edmund, St. Thomas's Hospital; Giles, George Michael James, St. Mary's Hospital; Godfrey, Charles Walter, University College; Gosling, Charles Edward, Queen's College, Birmingham, and St. Bartholomew's Hospital; Hunt, Joseph William, University College; Joule, John Samuel, Anderson's University and St. Bartholomew's Hospital; Kidd, Walter Aubrey, Guy's Hospital; Pinnell, Thomas Mark, University College; Rossiter, George Frederick, St. Thomas's Hospital; Sankey, Herbert Richard Octavius, University College; Snell, Edward Arthur, King's College; Symonds, Charters James, Guy's Hospital; Trafford, John Foster, University College.

EXCLUDING PHYSIOLOGY.

*First Division.*—Champneys, Henry Laurence, Guy's Hospital.

*Second Division.*—Baker, Albert De Winter, Guy's Hospital; Bigger, Samuel Ferguson, Liverpool School of Medicine; Cross, Francis Richardson, King's College; Cuming, Charles Henry, University College; Finch, Alfred, Guy's Hospital; Pickup, William James, University College; Ryley, James, University College.

PHYSIOLOGY ONLY.

*First Division.*—Whitelegge, Benjamin Arthur, University College.

*Second Division.*—Batterbury, Richard Legg, King's College; Cooke, Edward Marriott, King's College; Duke, Herbert, Guy's Hospital; Evans, Charles Walter, University College; Ferrier, John Christian, Guy's Hospital; Harrison, Charles Edward, St. Bartholomew's Hospital; Landon, Arthur Jermyn, St. Bartholomew's Hospital; Langley, John Geoffrey, University College; Taunton, William Whitchurch, B.Sc., University College.

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UNIVERSITY OF ABERDEEN.—During the past year the following candidates, after the usual examinations, received degrees in Medicine and Surgery:—

THE DEGREE OF M.D.

Koch, Edwin Lawson, L.M.S. (Calcutta), Colombo, Ceylon; Norton, Edward, L.R.C.P. Lond., M.R.C.S., London.

At the same time the following gentlemen received promotion to the degree of M.D.:—

Adams, George Edward D'Arcy, M.B., C.M., Nailsea, Bristol; Campbell, William, M.B., C.M., Kinellar; Cushny, William Alexander, M.B., C.M., Fochabers; Elliott, Frederick William, M.B., Lower Norwood, Surrey; Fasken, William Andrew Durnford, M.B.; Fowler, Charles Henry, M.B., St. Helena; Garden, Robert John, M.B., C.M., Aberdeen; Godson, Clement, M.B., C.M., London; Hay, Frederick, M.B., C.M., Caistor; Johnstone, Hugh, M.B., C.M., Burmah; Jotham, George William, M.B., C.M., Kidderminster; Law, James, M.B. C.M., Huelva; Lawrence, Alfred Edward Aust, M.B., C.M., Clifton, Bristol; Lightbourne, James Ashburner, M.D., C.M., Preston; Mackenzie, Duncan John, M.B., C.M., Mopley, Manchester; Marshall, Lewis Walter, M.B., C.M., General Hospital, Nottingham; M'Calman, Hugh, M.B., C.M., Barrow-in-Furness; M'Gregor, William, M.B., Mauritius; Merson, John, M.B., C.M., West Riding Asylum, Wakefield; Milne, Thomas, M.B., C.M., Ellon; Pickburn, Thomas James, M.B., C.M., Walcha, New South Wales; Simpson, James, M.B., C.M., Alford, Aberdeenshire; Van der Smagt, Francis Arnold, M.B., C.M., London; Wilkin, John Frederick, M.B., C.M., Folkestone; Wright, Francis James, M.B., C.M., County Asylum, Prestwick; Wyness, James Davidson, M.B., C.M., Aberdeen.

THE DEGREE OF M.B.

Alexander, John, Aberchirder, Banff; Allardyce, James, Gartly, Aberdeenshire; Barnard, Charles Edward, Tasmania; Brennand, Frederick James, Pitney, Langport; Cartwright, James Henry, London; Collins, Walter Charles Grosett, Chew Magna, Bristol; Cossham, William Raymond, Clevedon, Somerset; Craig, John Smith, Duncanston, Leslie; Craigmile, Alexander, M.A., Aberdeen; Dantra, Sorabshaw Hormasji, Bombay; Davison, Rashell Thomas, Tritlington, Northumberland; Davy, John, Accrington; Fehrsen, James M'Call, South Africa; Geddie, William, Kingston, Fochabers; Gray, Robert Aikman, Aberdeen; Greenway, James Riley, Warwickshire; Hart, Philip Neville, Norfolk; Hay, Francis, M.A., Peterhead; Holland, Lucius, Wylam-on-Tyne; Ilott, Herbert James, Bromley, Kent; Imlay, George Anderson, Arbuthnot; Ironside, Robert Adrian, Sutton Veny, Wilts; James, Arthur Culver, London; Keith, Alexander Crombie, Aberdeen; Laing, James, Grange, Peterhead; Lawrance, Patrick James, Old Deer, Aberdeenshire; Lloyd, John Farquhar, Monmouthshire; Lumsden, James Paterson, Cluny; Macdonald, Donald John, Madras; M'Combie, John, M.A., Aberdeen; Milne, Irvine Kempt, Udny; Milne, John, South Bank, Yorkshire; Milne, Robert, Midmar; Morgan, John Theodore, Colombo, Ceylon; Morice, Robert James, M.A., Old Aberdeen; Newman, Alfred Kingcome, Madras; Robertson, Frederick Marrant, Cape Town, South Africa; Scatliff, John Milton Eldborough, Brighton; Sheppard, William Thomas, Manchester; Smith, Henry Barton Liddell, London; Smith, James Broom, Manchester; Smith, Robert Gordon, Arbroath; Stevens, Alfred Felix, London; Strickland, Henry George Travers, Isle of Wight; Swaine, Charles Lethbridge, Tirhoot, Bengal; Trail, Alexander Forbes, Pitsligo; Trevor, Frank Wollaston, Welshpool; Weir, Patrick Alexander, M.A., Drainie, Elgin; Williamson, William Herbert, Aberdeen; Willmott, Julius John Eardley, Weston-super-Mare.

THE DEGREE OF C.M.

Alexander, John; Allardyce, James; Barnard, Charles Edward; Brennand, Frederick James; Collins, Walter Charles G.; Cossham, William Raymond; Craig, John Smith; Craigmile, Alexander; Dantra, Sorabshaw Hormasji; Davy, John; Fehrsen, James M'Call; Geddie, William; Gray, Robert Aikman; Greenway, James Riley; Hart, Philip Neville; Hay, Francis; Holland, Lucius; Ilott, Herbert James; Imlay, George Anderson; Ironside, Robert Adrian; James, Arthur Culver; Keith, Alexander Crombie; Koch, Edwin Lawson; Laing, James; Lawrance,

Patrick James; Lloyd, John Farquhar; Lumsden, James Paterson; Macdonald, Donald John; M'Combie, John; Milne, Irvine Kempt; Milne, John; Milne, Robert; Morgan, John Theodore; Morice, Robert James; Newman, Alfred Kingcome; Robertson, Frederick Marrant; Scatliff, John Milton E.; Sheppard, William Thomas; Smith, Henry Barton Liddell; Smith, James Broom; Smith, Robert Gordon; Stevens, Alfred Felix; Strickland, Henry George Travers; Swaine, Charles Lethbridge; Trail, Alexander Forbes; Trevor, Frank Wollaston; Weir, Patrick Alex.; Williamson, William Herbert; Wilmott, Julius John Eardley.

Of the above-mentioned candidates, John Alexander, Charles Edward Barnard, Alexander Craigmile, Francis Hay, Herbert James Ilott, Patrick Alex. Weir, and William Herbert Williamson received their degrees in Medicine and Surgery, with highest academical honours; Patrick James Lawrance and James Paterson Lumsden their degrees in Medicine, with academical honours; and James Allardyce and John M'Combie their degrees in Surgery, with academical honours.

At the late Graduation Term, the following were declared to have passed part of their examinations:—

Anderson, Alexander P. T.; Anderson, James; Anderson, John; Austin, John A.; Bailey, Samuel H.; Barker, Henry M.; Bannerman, William; Bell, Henry R.; Brander, James; Calder, Robert; Cameron, Nathaniel; Carey, John T.; Carline, William A.; Duncan, James; Doyle, Charles W.; Duirs, David Peter; Elliott, Frederick H.; Ferguson, Alexander F.; Garvin, Thomas F.; Hardwick, Frederick S.; Holdsworth, Samuel R.; Hutchings, Arthur C.; Innes, John Fraser; Jack, William; Jay, Henry Mason; Laws, Robert; Macgregor, Alexander G.; Mackenzie, Alexander W.; Mason, John W.; M'Dougall, Robert H.; Mearns, John H.; Mickle, Adam F. J.; Moir, John Munro; Murison, John F.; Pirrie, James M. G.; Ronald, Basil; Ross, James; Seymour, Charles; Shearer, Johnston; Simpson, James; Simpson, Wm. John R.; Skene, Thomas A.; Smith, James; Thomson, John; Tuckey, Charles Lloyd; Walker, George A.; Watt, George; Wilson, John Osbert; Wright, Frederick W.

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ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the recent sittings of the examiners:—

Bently, George H., Bombay.
Brown, William Perrin, Warrington.
Carr, John Mitchell, County Armagh.
Collie, Mackintosh A. J., Morayshire.
Gallimore, Thomas, Ashwood, Longton.
Hamilton, Archibald Alexander, India.
Hanson, Hargreaves H. H., Leicester.
Maclean, John Hugh, Edinburgh.
M'Glade, James W., Edinburgh.
Osburne, Cecil, Cork.
Penier, William Deane, Cork.
Ramsden, Walter T., Batley.
Schofield, George Taylor, Yorkshire.
Vickerstaff, William Henry, Macclesfield.

The following gentlemen passed their final examination, and were admitted L.R.C.P.E. and L.R.C.S.E:—

Allen, John Edward, Cheshire.
Auchinleck, Hugh Alexander, Strabane.
Bindon, William John Vereker, Cape of Good Hope.
Dawson, Richard Stratheden, India.
Douglas, Thomas, Northumberland.
D'Espaignet, Marc, Mauritius.
Hartley, Reginald, Yorkshire.
Hayes, Patrick Joseph, Cork.
Herring, John Francis, South Wales.
Horne, Thomas, Whitby.
Johnson, John Frederick, Monaghan.
Leader, Nicholas, County Cork.
Morison, James Rutherford, County Durham.
Myles, Thomas William, Limerick.
M'Iver, Wiliam, County Tyrone.
Naylor, Henry George Horace, Calcutta.
Ormrod, Fray, Lancashire.
O'Hara, William, India
O'Meara, Rowland Cooke, Dublin.
Powell, George Benjamin, Dublin.
Ronaldson, James Bruce, County Cork.
Ross, David John, Galway.
Smyth, John Walker, County Antrim.
Thomson, Edward William, East Indies.
Verling, Walter Kavanagh, County Cork.
Whiteford, James William, Canada.
Wilkins, Richard, Madras.

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KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.—At the usual monthly examination meetings of the College held on Tuesday, Wednesday, and Thursday, August 4, 5, and 6, the following were the successful candidates for the Licence to practise Medicine:—

Dane, Arthur Henry Cole. | Vesey, Agmon Blathwayt.
Hogan, Edward Michael Angelo. |

For the Licence to practice Midwifery—

Gordon, Samuel Thomas. | Vesey, Agmon Blathwayt.

For the Licence to practise as a Midwife and Nurse-tender—

Greenstreet, Miss Ellen.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their first professional examination during the July sittings of the examiners:—

Champneys, Charles Thornton, Glasgow.
Graham, Alexander, Tobermory.
Richardson, Charles H., Appleby.
Wallace, John Veitch, Fifeshire.

The following gentlemen passed their final examination, and were admitted L.R.C.S.E.:—

Alexander, David, Forfarshire.
Baker, Edward Leopold, Somerset.
Butter, George Bleek, West Indies.
Campbell, Arthur Robert, Hawick.
Forbes, Hugh M'Gregor, Fifeshire.
Howlin, William, County Dublin.
Lloyd, John Farquhar, Monmouthshire.
Nix, Edward James, London.

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APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 6:—

Brady, Owen Cornelius, Vernon-road, Birmingham.
Mitchell, Charles Joseph Carter, Kempston, Bedford.

The following gentlemen also on the same day passed their primary professional examination:—

Calcott, Lewis Berkeley, St. Bartholomew's Hospital.
Haselden, Robert, St. Bartholomew's Hospital.
Pearless, Walter Relf, St. Bartholomew's Hospital.
Upton, Alfred, St. Bartholomew's Hospital.
Parkinson, Sidney George, St. Mary's Hospital.

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## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BEVAN, JAMES, M.R.C.S., L.S.A.—Surgeon for District No. 3 of the Brighton and Hove Provident Dispensary.

FAULKNER, W. J., M.D., M.Ch. Queen's Univ. Ire.—House-Physician for six months to the North Staffordshire Infirmary, Hartshill, Stoke-on-Trent, *vice* Mr. J. G. U. West, resigned.

MAGRATH, JOHN, M.D. Queen's Univ. Ire., M.R.C.S. Eng., L.S.A.—Assistant-Physician to the Metropolitan Free Hospital, *vice* Dr. F. De Haviland Hall, resigned.

MEDCALF, E. S., M.R.C.S.E., L.R.C.P. Edin., L.S.A. Lond.—Resident Medical Officer to the Western Branch of the Brighton and Hove Dispensary, *vice* J. Morris, resigned.

PALEY, W. G., M.R.C.S., L.R.C.P. Lond.—Registrar to the Evelina Hospital for Sick Children, Southwark-bridge-road, S.E.

RONALDSON, THOMAS RUTHERFORD, M.B., C.M.—House-Surgeon to the Edinburgh Royal Maternity Hospital.

SPOONER, CHARLES HENRY, M.R.C.S., L.S.A.—Surgeon for No. 5 District of the Brighton and Hove Infirmary.

SPRATLY, S., M.D.—Surgeon to the Birkenhead Borough Hospital, *vice* H. O. Wilson, Esq., resigned.

URQUHART, ANDREW J., M.B., C.M.—House-Surgeon to the Edinburgh Royal Maternity Hospital.

WOTHERSPOON, W., L.F.P.&S. Glasg.—Medical Officer to the Ballachulish Slate Quarries.

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## MILITARY APPOINTMENTS.

WAR OFFICE—MEDICAL DEPARTMENT.—Surgeon-Major Charles Vidler Cay, M.D., Battalion Surgeon Coldstream Guards, to be Surgeon-Major, *vice* John Wyatt, C.B., deceased; Surgeon-Major Constantine Caridi Read, from the Grenadier Guards, to be Battalion Surgeon Coldstream Guards, *vice* Surgeon-Major C. V. Cay, M.D.; Surgeon-Major John Wm. Trotter to be Surgeon-Major Coldstream Guards; Surgeon-General James Fraser, M.D., C.B., to be Honorary Physician to her Majesty, *vice* Surgeon-General George Stewart Bateson, M.D., deceased; Surgeon-Major William Menzies Calder retires upon temporary half-pay.

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## BIRTHS.

BRAND.—On August 7, at South Hackney, the wife of Samuel E. Brand, surgeon, 23, Cornhill, of a daughter.

CREW.—On July 28, at Higham Ferrers, the wife of John Crew, L.R.C.P., of a son.

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## MARRIAGES.

APPERLEY—DAVIS.—On August 6, at St. James's, Malvern, James Powles Apperley, of Ringfield, Fownhope, Herefordshire, to Lucy Maria, only surviving daughter of Henry Davis, M.D., late of Putney.

COOKSON—PEACOCK.—On August 4, at St. Paul's, Starcross, Devon, Henry, youngest son of the late T. W. Cookson, Esq., Liverpool, to Jane Ash, only daughter of George Peacock, F.R.C.S., of Regent House, Starcross, Devon.

NICHOLS—TRENCH.—On August 6, at St. Mary Magdalene's, Addiscombe, Richard Peter Nichols, Esq., of St. Aubyn's, Cliftonville, Brighton, to Sarah, widow of John Power Trench, M.D., Staff Surgeon-Major.

PAGET—PRICE.—On August 12, at Standish, Lancashire, William S. Paget, M.B. Lond., to Margaret Elizabeth, eldest surviving daughter of John L. Price, M.R.C.S., etc., of Standish.

ROBERTSON—BOYD.—On August 6, at Orchard, West Kilbride, Ayrshire, Robert Beedie Robertson, F.R.C.S.E., Ardrossan, to Anna Maria Eleanor, youngest daughter of James Boyd, of Orchard and Law Castle, late Superintending Surgeon Bombay Presidency and Indian Navy, H.E.I.C.S.

SANDBERG—LINGEN.—On August 4, at St. Peter's, Hereford, the Rev. George Alfred Sandberg, M.A., Vicar of Hanna-cum-Markby, Lincolnshire, to Sophia Blanche, third daughter of Charles Lingen, M.D., and J.P. of the city of Hereford.

SHELDON—PEARSE.—On August 5, at All Saints, Kensington-park, Thomas Sheldon, M.D., of 123, Cornwall-road, Notting-hill, eldest son of the late W. Sheldon, Esq., J.P., Stratford-on-Avon, to Elizabeth Anne, only daughter of the late Peter J. T. Pearse, Esq.

STOKOE—WOODYER.—On August 8, at St. Mary's, Hastings, Richard Stokoe, M.D., to Mary Ann, widow of the late Charles Mason Woodyer, Esq.

TURNER—RIDGE.—On August 4, at St. Matthew's, City-road, Henry Cockford Turner, surgeon, of Steyning, Sussex, to Cordelia Anna Ellen, youngest daughter of the late William Ridge, Esq.

WALLIS—SMITH.—On August 4, at St. Michael and All Angels, North Kensington, Arthur Pearson Wallis, to Eliza Fanny, only daughter of the late Wm. Smith, M.R.C.S., of Dowgate-hill.

## DEATHS.

DAVIES, LOUISA ANN, third daughter of the late Dr. Henry Davies, of 6, Duchess-street, Portland-place, at 23, Brondesbury-road, Kilburn, on August 9.

HAWKSLEY, —, the wife of Thomas Hawksley, M.D., of Brook-street, Grosvenor-square, on August 2.

HAYMAN, CHARLES CHRISTOPHER, M.D., of 22, Grand Parade, Eastbourne, on August 2, at Brooke House, West Malling, aged 48.

MAULE, JOHN TEMPLEMAN, late Deputy Inspector-General of Hospitals, Madras Army, on August 9, at Cleveland House, Bath, aged 73.

MILES, JOHN, M.D., late Resident Medical Officer of the Charterhouse, on August 6, at his residence, Eastbourne, Sussex, aged 82.

SMILES, EDWARD, for many years Surgeon to the Northumberland Light Infantry Regiment of Militia, and eldest son of the late Edward Smiles, surgeon, of Newcastle-upon-Tyne, at Alnwick, on August 9.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL DISPENSARY.—Additional Resident Surgeon. Must be duly qualified and registered. Applications, with testimonials, to A. Forrest, Secretary, on or before August 29.

CANCER HOSPITAL.—Resident House-Surgeon and Registrar. Candidates must be M.R.C.S., duly registered. Applications, with testimonials, to the Chairman of the Weekly Board, 187, Piccadilly, W.

CASTLE WARD UNION, NORTHUMBERLAND.—Medical Officer. Must be duly qualified and registered. Applications, with testimonials, to Thomas Arkle, Clerk to the Guardians, on or before August 22.

DURHAM UNIVERSITY COLLEGES OF MEDICINE AND PHYSICAL SCIENCE, NEWCASTLE-ON-TYNE.—Professorship in Biology. Applications, with testimonials, to T. Wood Bunning, Esq., Secretary, before August 15.

DURSLEY UNION.—Medical Officer. Applications, with testimonials, to George Wenden, Clerk to the Guardians, on or before August 26.

GARSTANG RURAL SANITARY DISTRICT.—Medical Officer of Health. Applications to Thomas Noble, Clerk, on or before August 27.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, MANCHESTER.—Assistant-Physician. Must be duly qualified and registered. Applications to the Chairman, Gartside-street, Manchester, on or before August 22.

HANTS COUNTY ASYLUM.—Junior Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Manley, Knowle, Fareham, Hants, on or before August 18.

HULL GENERAL INFIRMARY.—Resident Assistant-Surgeon. Applications, with testimonials, to the Chairman, Henry Gibson, Esq., at the Infirmary, from whom further particulars may be obtained. The post will be vacant on September 1.

INVERNESS DISTRICT.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Aitken, Medical Superintendent, on or before August 19.

QUEEN'S HOSPITAL, BIRMINGHAM.—Dispenser. Applications, on or before August 17, to the Secretary.

ROYAL FREE HOSPITAL.—Junior House-Surgeon. Must possess medical or surgical qualifications. Applications, with testimonials, to the Secretary, on or before August 19.

ROYAL INFIRMARY, MANCHESTER.—House-Physician. Must be duly qualified and registered. Applications, with testimonials and diplomas, to the Chairman of the Weekly Board, on or before August 22.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Must be duly qualified and registered. Applications, with testimonials, to J. B. Shepherd, on or before August 18.

STROMNESS, ORKNEY.—Medical Officer. Applications, with testimonials, to Chairman of the Parochial Board, Stromness, on or before August 20.

WEST LONDON HOSPITAL, HAMMERSMITH-ROAD, W.—Junior Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London. Applications, with testimonials, to the Secretary, on or before August 22.

WEST NORFOLK AND LYNN HOSPITAL.—Resident Medical Officer and Secretary. Must be fully qualified. Applications, with testimonials, to the Weekly Board, King's Lynn, on or before August 22.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Amersham Union.*—The Missenden district is vacant; area 6206; population 2366; salary £34 per annum.

*Holywell Union.*—Mr. Albert Hind has resigned the Second Division of the Whitford District; area 7340; population 3524; salary £35 per annum.

*Hoxne Union.*—Mr. Joseph Packard has resigned the Hoxne District; area 6986; population 1857; salary £42 12s. per annum.

*West Ward Union.*—The Patterdale District is vacant; salary £10 per annum.

### APPOINTMENTS.

*Aston Union.*—John White Keyworth, M.D., M.R.C.S., L.A.C., to the First District.

*Barnstaple Union.*—John Thompson, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Fifth District.

*Cardiff Union.*—Morgan Williams, M.R.C.S. Eng., L.R.C.P. Edin., to the Cardiff West District.

*Caxton and Arrington Union.*—Henry F. La Touche White, L.K.Q.C.P. Ire., L.R.C.S.I., to the Workhouse.

*Frome Union.*—Herbert Norton, L.R.C.P. Edin., M.R.C.S. Eng., to the Nunney District.

*Gower Union.*—James Hurley, M.D., M.C. Queen's Univ., Ire., to the Eastern District.

*Kington Union.*—William Bruorton, M.R.C.S. Eng., L.S.A., to the new Radnor District.

*Liskeard Union.*—William John Corin, M.R.C.S., L.S.A., to the Sixth District.

*Stratford-on-Avon Union.*—Charles Barlow, M.R.C.S. Eng., L.S.A., to the Welford District.

### ANALYST.

*City of London Union.*—William Sedgwick Saunders, M.D., M.R.C.S.E., L.R.C.P. Edin.; salary £100 per annum.

MAJOR BATHURST has erected a cottage infirmary at Cirencester, as a memorial to his late wife, and presented it to the town.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The library was closed on Monday, August 10, and will be reopened on Thursday, September 10 next.

THE following sensible and pertinent observations upon gratuitous medical assistance are made in the fourteenth annual report of the Nottingham Provident Medical Aid Society:—"It is much to be desired that employers would endeavour to impress upon their workmen habits of self-respect and a desire to place themselves above the necessity of seeking gratuitous medical assistance, when so small a sum as one penny per week will secure them at all times efficient attention, and at their own homes when necessary. One of the principal causes that operate against the increase of members is the indiscriminate distribution of dispensary recommendations, given, in many instances, to persons well able to provide medical attendance themselves, which not only acts unfairly towards the medical profession, but also lowers the tone of independent feeling in the recipients."

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Mr. J. Powell.*—*Vide* page 168, column 1, of our last week's issue.

*J. H.*—Proofs of the communication on "Diphtheria" will be sent to you for revision as soon as possible.

*X.*—Dr. Nathan Allen delivered the annual address before the Massachusetts Medical Society, assembled in Boston, in June last. His theme was "The Medical Problems of the Day."

*A Subscriber.*—*Medical Times and Gazette*, March 11, 1871.

*C. N. P.*—Dr. Fetherston is the President of the Medical Society of Victoria.

*Medical Libraries.*—The libraries of the Royal College of Surgeons and of the Royal Medical and Chirurgical Society are both closed.

*M.D., Dublin.*—The meeting of the British Medical Association was brought to a close yesterday (Friday). The next meeeting will be held in Edinburgh. That in Dublin was certainly one of the most interesting.

*Mr. S. Burrows.*—Hundreds of worthless and contemptible pamphlets are constantly circulated and advertised. Unfortunately the law is rather in favour of medical quackery than opposed to it.

*M.D., Dandenong, Victoria.*—The calendar of the Royal College of Surgeons will not be published until the end of the ensuing month.

*A Provincial Student.*—You will obtain full information in our "Students" Number" of the *Medical Times and Gazette*.

### HOW CAN ENGLISH PHYSICIANS AND CHEMISTS LEGALLY PRACTISE IN FRANCE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your next issue will you kindly state whether English physicians and English pharmaceutists can pursue their respective vocations in France (at Pau, Mentone, etc.), without any restrictions; and if there be any, what they are? I shall feel much obliged for full particulars on this subject, as also on the question whether there are any openings for English physicians at French places of British resort. I am, &c., DELTA.

August 11.

*N. C. S.*—The Bill recently brought forward in the French Assembly for the protection of children trained for acrobatic performances, proposed to prohibit the employment of children for such performances under fifteen years of age.

*Alchemy.*—"To solemnise this day the glorious sun
Stays in his course and plays the *Alchemist;*
Turning with splendour of his precious eye
The meagre cloddy earth to glittering gold."—*Shakespeare.*

*Dr. Hodgson.*—The University of St. Andrews ranks immediately after that of Cambridge; and by letters patent in March, 1858, the Queen declared that the degrees granted by the University of Sydney, New South Wales, should be entitled to "rank, precedence, and consideration," in the United Kingdom *and all colonies and possessions of the Crown*, as fully as if they were granted by any University in the United Kingdom. And by letters patent in March, 1859, similar privileges were granted to the University of Melbourne in Victoria.

*The Fergusson Portrait.*—It is intended to present subscribers to the portrait of Sir William Fergusson with an engraving of the painting, for which purpose the Council of the Royal College of Surgeons, to whom it has been presented, has consented to allow it to be handed over to an eminent engraver. Write to Surgeon-Major Logie, Royal Horse Guards.

*Nemo.*— "— He ne'er car'd a pin,
What they said or may say of the mortal within."

*Inquirer.*—It was a custom among some barbarous tribes to administer physic to soldiers before a campaign. Heriot's "History of Canada" states—"When the warriors among the Natchez had assembled in sufficient numbers for their expedition, the Medicine of War was prepared in the chief's cabin. This was an emetic composed of a root boiled in water. The warriors, sometimes to the number of three hundred, seated themselves round the kettles or cauldrons; about a gallon was served out to each; the ceremony was to swallow it at one draught, and then discharge it again with such loud eructations and efforts as might be heard at a great distance."

COMMUNICATIONS have been received from—

Mr. Joshua Powell; Delta; Dr. Jolly, Birmingham; Professor Brazier, Aberdeen; Mr. Burrows; Dr. Robertson, Buxton; Dr. H. V. Carter; Captain Doty; Dr. Abrath, Sunderland; Dr. Spratly; Mr. Croxton; Mr. E. S. Medcalf; Mr. R. Hardley; Dr. Sparks, London; Mr. Mortimer Balding, Royston, Herts; Dr. Lawson, Wakefield; Dr. Lewis Shapter, Exeter.

BOOKS AND PAMPHLETS RECEIVED—

Alford's Hints on Public Health—Lawson Tait on Diseases of the Ovaries—Lincoln on Electro-Therapeutics—Bull on the Leprous Diseases of the Eye—Nordiskt Medicinskt Arkiv—Report of the Food Analyst of the Hackney District.

PERIODICALS AND NEWSPAPERS RECEIVED—

Pharmaceutical Journal—Chemist and Druggist—Centralblatt für Chirurgie, No. 19—La Gazette Médicale—Le Progrès Médical—La Tribune Médicale—Gazette des Hôpitaux—La France Médicale—Sunderland Times—Sunderland Herald—Ulster General Advertiser.

## APPOINTMENTS FOR THE WEEK.

*August* 15. *Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

17. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

18. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

19. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

20. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

21. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, August* 8.

### BIRTHS.

Births of Boys, 1111; Girls, 1108; Total, 2219.
Average of 10 corresponding years 1864-73, 2093·1.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 776 | 729 | 1505 |
| Average of the ten years 1864-73 | 845·0 | 793·6 | 1638·6 |
| Average corrected to increased population | ... | ... | 1802 |
| Deaths of people aged 80 and upwards | ... | ... | 36 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 3 | 3 | 2 | 3 | ... | 5 | 1 | 42 |
| North... ... | 751729 | ... | 3 | 11 | 1 | 4 | 2 | 1 | 2 | 80 |
| Central ... | 334369 | ... | 3 | 10 | ... | ... | ... | 2 | ... | 21 |
| East ... ... | 639111 | ... | 4 | 19 | 1 | 4 | 2 | 4 | 1 | 59 |
| South... ... | 967692 | ... | 7 | 15 | ... | 5 | 6 | 4 | 5 | 91 |
| Total ... ... | 3254260 | ... | 20 | 58 | 4 | 16 | 10 | 16 | 9 | 293 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·636 in. |
| Mean temperature | 60·6° |
| Highest point of thermometer | 79·5° |
| Lowest point of thermometer | 49·8° |
| Mean dew-point temperature | 53·3° |
| General direction of wind | S.W. & W.S.W. |
| Whole amount of rain in the week | 0·12 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 8, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Aug. 8. | Deaths Registered during the week ending Aug. 8. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2219 | 1505 | 79·5 | 49·8 | 60·6 | 15·89 | 0·12 | 0·30 |
| Portsmouth ... | 120436 | 26·8 | 70 | 51 | ... | ... | ... | ... | 0·36 | 0·91 |
| Norwich ... ... | 82257 | 11·0 | 49 | 31 | 78·0 | 48·0 | 55·4 | 14·66 | 0·27 | 0·69 |
| Bristol ... ... | 192889 | 43·3 | 125 | 90 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 57 | 38 | 77·7 | 46·9 | 58·0 | 14·44 | 0·50 | 1·27 |
| Birmingham ... | 360892 | 43·0 | 276 | 220 | 77·0 | 49·2 | 59·1 | 15·05 | 0·33 | 0·84 |
| Leicester ... ... | 106202 | 33·2 | 69 | 79 | 78·2 | 44·8 | 57·8 | 14·33 | 0·45 | 1·14 |
| Nottingham ... | 90894 | 45·5 | 58 | 46 | 79·1 | 41·7 | 57·6 | 14·22 | 0·49 | 1·24 |
| Liverpool ... ... | 510640 | 98·0 | 375 | 375 | 68·0 | 50·7 | 56·6 | 13·66 | 0·69 | 1·75 |
| Manchester ... | 355339 | 82·8 | 224 | 234 | 72·0 | 43·0 | 57·0 | 13·83 | 1·41 | 3·58 |
| Salford ... ... | 133068 | 25·7 | 83 | 93 | 70·5 | 41·8 | 55·5 | 13·05 | 1·59 | 4·04 |
| Oldham ... ... | 86281 | 18·5 | 69 | 56 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 96 | 81 | 70·4 | 46·8 | 56·4 | 13·55 | 1·14 | 2·90 |
| Leeds ... ... | 278798 | 12·9 | 233 | 193 | 71·0 | 46·0 | 57·6 | 14·22 | 0·61 | 1·55 |
| Sheffield ... ... | 261029 | 13·3 | 171 | 155 | 76·2 | 47·0 | 58·1 | 14·50 | 0·83 | 2·11 |
| Hull ... ... ... | 130996 | 36·0 | 100 | 61 | ... | ... | ... | ... | ... | ... |
| Sunderland ... | 104378 | 31·6 | 80 | 63 | 76·0 | 45·0 | 59·2 | 15·11 | 0·41 | 1·04 |
| Newcastle-on-Tyne | 135437 | 25·2 | 100 | 106 | 69·0 | 48·0 | 54·8 | 12·66 | 0·39 | 0·99 |
| Edinburgh ... ... | 211691 | 47·8 | 138 | 71 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 347 | 277 | 66·2 | 46·5 | 55·7 | 13·16 | 0·97 | 2·46 |
| Dublin ... ... | 314666 | 31·3 | 143 | 133 | 71·4 | 45·0 | 57·9 | 14·39 | 0·61 | 1·55 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5082 | 3958 | 79·5 | 41·7 | 57·5 | 14·16 | 0·66 | 1·68 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·64 in. The highest was 29·77 in. at the beginning of the week and on Thursday evening, and the lowest 29·42 in. on Wednesday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## LECTURE INTRODUCTORY TO "DYSTOCIA."

DELIVERED AT GUY'S HOSPITAL.

By J. BRAXTON HICKS, M.D. Lond., F.R.S.,
Lecturer on Midwifery and Obstetric Physician at Guy's Hospital, etc.

GENTLEMEN,—We come now to the most important portion of our course, to which the former is but child's play—interesting and very important to know, because it is impossible, without a thorough knowledge of it, to properly understand the means whereby we are enabled to combat the errors of labour, which will engage our attention for the remainder of the session. If the whole of midwifery were included in what you have already been taught, your anxieties would be slight and your work not very arduous; you would be scarcely more than spectators of a highly interesting physiological phenomenon. But in no case can you be assured that you may not be called upon to grapple with difficulties and to ward off dangers which may tax your utmost knowledge and powers. Some, from their insidious approach, will demand watchful patience; others, from their suddenness, will require energy and promptitude. To manage many a combination of these qualities will be requisite; a combination of two mental qualities, not so easy to find naturally mingled, yet possible of attainment—at any rate for practical purposes—by careful cultivation. Those of you who, as you all should do, carefully review your own powers, will be enabled to see in which of these points you fail, and by steady practice you will be able to arrive at a result which, if not absolute perfection, will serve you and your patients well in the hour of need. Yet nothing but a full knowledge of the whole subject can make you competent to conduct cases of emergency. There is no time to think; life depends on moments; your recognition of the cause of danger, and the employment of the means to combat it, must be coincident. But in all this development of energy be as gentle as possible; you have to do with a readily impressible system; and while you are *prompt, be calm*. Your patient watches you; scans anxiously your manner; she quickly recognises anxiety in your face or movements; and if she read it there, something is added to her danger.

Now, abnormal labour has been variously classified. Most authors have made the classes without the same basis, which of course is unphilosophical—for instance, taking time as "Tedious Labour," the next class "Laborious Labour," then "Obstructed Labour," then a fourth "Complex Labour."

The mode of classification may to some of you seem of but little importance, and yet it is of much; for, to be able to promptly treat a sudden emergency, it is essential that we should have a rapid method of recognising its cause. If we take, for instance, "tedious labour" as a class, it is evident that we must wait till its completion before we can classify it. The classification does not help us, but, on the contrary, it rather impels us to wait; whereas, if we notice that the labour is slow because of the weakness of the pains, then our mind is at once directed to the removal of that inactivity. A still further peculiarity of the class "tedious labour" was that authors bargained that the labour should not have been assisted by instruments.

You will, by these remarks, have already perceived that I consider the proper basis of classification to be "cause,"—and this is that which I shall adopt in this course.

But as the length of labour has much to do with the well-doing of the patient, so the knowledge of the effects of "prolonged labour" upon the system is of the utmost consequence. I shall first of all endeavour to point out to you the symptoms which are produced upon the mother by the detention of the fœtus in the parturient passage, and then allude to the effects upon the fœtus itself.

Bear in mind, first of all, this fact: that by whatever cause the fœtus may be detained, when labour has once fairly set in, certain symptoms will arise, which, if unrelieved by nature or art, will go on from bad to worse, till they end fatally. No matter what the presentation, or what the point at which the arrest occur, sooner or later the patient will succumb unless relieved.

I will not detain you with the seemingly possible exception of what is called "missed labour," because in these cases labour has not fairly set in; nor is it certain as to the exact nature of the conditions of the pregnancy. For all practical purposes the rule I have just laid down is absolute. Let us examine the symptoms, and follow them to the fatal result.

After a patient has been in hard labour for some time she perspires profusely, her face becomes congested, the pulse becomes rather quicker, the tongue furred; she becomes restless, anxious, perhaps light-headed; the urine is scanty, and the vaginal secretions are lessened. Should she be delivered at this stage, these symptoms quickly subside, and no harm is experienced; but if she continue in labour, the pulse gradually rises to about 100 per minute, the skin gets dry, the countenance becomes more anxious and haggard, the tongue brown and dry, there is much thirst and the lips parched, the passages hot, tender, and swollen, and perhaps dark; the uterus, acting violently at first, becomes tender on pressure, and the pains more distressing, while they are frequently short and flashing. The uterus, however, is by no means inert, for while the rhythmical action is becoming less in its duration, a continuous action is being substituted; so that instead of the uterus being flaccid between each pain, it is hard and firm—in other words, contracted. This condition of the uterus it is very important to recognise, because it is most probably the cause of the serious symptoms which attend unrelieved labour—at any rate, they appear coincidently; and also because the action in itself is a cause of detention of the fœtus, the uterus grasping rather than extruding it. Again, the fœtal life begins then to be in serious jeopardy, from the continuous pressure perhaps on its funis. Certainly there is a limitation of its blood-supply by the permanent diminution of the calibre of the bloodvessels of the uterus, and retardation of the circulation in the placenta, which, if not producing absolutely to the death of the fœtus, yet acts very deterioratingly on it. Leaving, however, this point for a moment, I will continue the narration of the symptoms which pass on to what has been misnamed "powerless labour." Gradually, as this state of continuous action becomes more and more established, so you will find the rhythmical pains diminished, till the one is substituted for the other; the fœtus decomposes, frequently gas of a most putrid odour escaping from the uterus, the fœtus sometimes becoming largely distended by gas—thus increasing the difficulty of delivery; the patient's face becomes pale, with a sardonic grin, the tongue is dry and brown, the pulse rapid (130 to 160 per minute) and often intermitting; and when there is loss of voice, delirium, cold extremities, gasping, passing fæces involuntarily, jactitation of limbs, death is not far distant. If the patient be delivered before these later symptoms arise, she may recover, but it is seldom that she does so after. Should she survive labour a few days where the child has decomposed, the system is often so infected by the putrid elements that the odour is evolved from the body some days after labour. If she do recover after these protracted labours, she may do so only to show serious lesions: she may have severe effusions round the uterus, as parametritis, perimetritis; cystitis; vesico- or recto-vaginal fistulæ; and pelvic abscesses.

Let me now again revert to the continuous action to which I have above alluded. The diagnosis is not difficult. If it be present, then the uterus, if the waters have escaped, is firmly contracted round the fœtus. It assumes more or less its shape, and percussion about the outline of the uterus shows the resonance to cease abruptly and distinctly; whereas, if it be relaxed, there is dulness beyond the outline of the fœtus. Again, if the uterus be contracted, it is more or less fixed as it were against the brim, and the fœtus cannot be moved about freely; but if the uterus be relaxed, the fœtus is readily movable, and outside of it there is an undefined outline of the flaccid uterus. This is more apparent if the membranes be perfect; but, supposing the permanently contracted state were to occur before the rupture of the membranes—which is rare,—then of course the uterus would not assume the fœtal form, but its rigidity would prevent our feeling it plainly. Now, I have never seen a case where, while the uterus became relaxed during the interval, the pulse began to rise and the other symptoms came on, except in the rare instances of rupture, or where there was some other disease coincident with labour; and the existence of these are not difficult to recognise, because, in case of coincident disease, we find the symptoms either before or early in labour, and in case of rupture there are general symptoms sufficiently marked, as I shall by-and-by point out. When the uterus has once fairly acquired this irritable state, the fœtus is seldom born by natural means, though, in a few cases, by the administration of moderate doses

of opium repeated at short intervals, we may so far bring back the uterus to a healthy action as that it may expel the fœtus, or by the inhalation of chloroform the same result may be produced. And, although it is proper first to employ these methods, yet, if we find them fail, the indication is clearly to employ traction for the delivery; and we must be careful not to wait too long expecting these remedies to act, as thereby we may allow the constant contraction to be more intense. When I say that traction is the action distinctly suggested, it is just possible that delivery may be accomplished by gentle compression of the uterus by both hands towards the fundus. "Expressio fœtus," as it has been named, can only be of use in the early stages of this state.

Traction in general, therefore, is the action indicated, or the "pulling forth" of the child, as it used to be called; and when, after the application of the instrument, we attempt to draw down, we shall feel a resistance something like that of a spring (where the head is not detained by bony obstacle), for the uterus, grasping firmly the child, dips down into its inequalities, and thus a number of opposing projections occur to hinder the descent of the fœtus. The uterus, therefore, is drawn down to a perceptible degree along with the fœtus, if the head be not impacted, as above mentioned, between bony obstacles. It is only when the attachments and supports of the uterus offer a greater obstacle to the descent of the fœtus than this grasping action that the fœtus is caused to press the uterine obstacle aside, and thus its descent is accomplished.

But we need not, in this class of cases, fear (as we do in feeble pains from inertia) to draw out the child, even although the rhythmical pain be but slight. When we have delivered the child, then the placenta is often in like manner held for a time—longer, generally, than in ordinary labour; and we have little apprehension, when it is expelled or even withdrawn by hand, that any flooding will occur—at least, from a relaxed uterus. The contrary is the case when the fœtus is drawn forth from the uterus in the other condition—namely, with feeble pains and relaxed state between. In this event the uterus is very liable to relax after; and if the placenta be detached ever so slightly, relaxation means hæmorrhage. And then, when we (according to our rules) have removed the placenta, there may be an empty, uncontracted uterus, with its certain consequence, flooding. Yet some will answer that they have often employed the forceps in this half-acting uterus, and delivered without hæmorrhage. Certainly. But unless we find, as the head passes the perineum, that the pains are roused, we ought never to reckon upon immunity from flooding. We ought, then, if we *must* deliver in this condition, to be slow in our traction, and not proceed unless the pains fairly respond, which we should also endeavour to excite by secale and other uterine stimulants.

Thus, you see, we have two states, both with feeble pains—one with the uterus contracted between, the other with a relaxed uterus. In the former we *must*, in most cases, use traction, and this we can do with safety; in the latter condition we *may* use the forceps in special cases, but not as a general rule, and always in fear and with much caution. Now, I said before that sooner or later serious symptoms arise if labour be not relieved, in whatever position the detention may arise, and whatever the presentation. Let us consider this further. You will remember what I told you of natural labour: that the pains altered as the head descended out of the uterus; and that the lower it came down the more forcing became the pains, till they reached their maximum at the outlet. I pointed out to you the great force the uterus exerted, and the power of the auxiliary forces. The exercise of this function demands a copious generation of nerve-force. The demand, therefore, necessarily increases as labour advances, because a larger area of reflex irritation exists when the head is partly in the cavity than whilst in utero, and again a still larger when it is at the vulva. If the constitutional symptoms indicative of detention are mainly dependent upon this enormous demand upon the system, then it is easy to understand why the lower down the fœtus is the sooner the untoward symptoms are in arriving; and yet it has been the remark of most authors that it was difficult to explain this clinical fact. Some have explained it by the bruising and contusion to which the soft parts are subjected. Doubtless this has an important influence, but by no means the whole; because it is readily to be noticed, that unless the case has proceeded to the more serious kind of symptoms, they vanish very rapidly after the delivery of the child—in a few hours, often sooner. Whatever be the explanation, you will find this clinical fact plain enough: that the lower the head is down, the sooner will untoward symptoms appear.

Again, with regard to the presentation, you will observe this other clinical fact: that the larger and harder the presenting portion of the fœtus, the quicker will arise dangerous symptoms. We may take the fœtal head as the maximum of hardness, and the foot as the minimum of size; and you will observe that while untoward symptoms appear early in head presentations, so when the foot or hand present they are slow. So slowly, so insidiously do they come on in these presentations, that they notably form the most dangerous traps for young or ignorant practitioners.

But to assist you in being alive to this danger you must bear in mind the differences in the "pains" in the several stages of labour. If, while the fœtus was wholly held in the uterus—for instance, by a rigid os,—you were to wait for the arrival of forcing pains before you thought it proper to assist, you would be waiting for that which will never arrive, whilst slowly, but surely, the patient drifts on to danger. Often have I seen this mistake made, and not always by a student. I have seen a woman in a most perilous state from this expectation; I have seen utero-vesical fistulæ result from the same in two cases, and yet the pulse had been at 130 to 150 per minute, without the attendant suspecting danger. Recollect, then, what I have before told you respecting the character of the pains in the various stages of labour.

You must also take into account the temperament of the patient, and her general state of health at the time of delivery; and although no definite guides can be laid down, yet we may be sure, if the temperament be extremely excitable, or languid, and her general condition depressed by previous illness, anxiety, or exposure to unhealthy influences, whether in high or low station of life, that there will be but a limited tolerance of detention of labour.

I may give you also these general rules as your guide:—

1. If the obstacle does not appear insuperable to nature, then you may fairly wait to see whether natural powers are sufficient. If, however, untoward symptoms supervene, you must not wait longer, but interfere.

2. If you are certain from the first that the obstacle is insuperable by nature, then do not wait longer than is necessary for the fair establishment of labour; I mean, in those cases where it is not determined to deliver otherwise than *per vias naturales*, do not wait till the patient is irretrievably damaged, the child dead, or the chances of recovery for the mother lost.

Hence another simple rule follows.

3. Examine every patient as early as possible in labour, to ascertain if any and what kind of impediment exist.

But although I have just given you the guides as to when you *must* draw the child from the mother, yet it is very difficult to give you a precise idea as to when you *may* draw it forth without injury to her. Because, while it is admitted that very long labours are detrimental to both mother and child, yet it cannot be altogether admitted that a fairly long labour in a strong woman is detrimental. By long action of the uterus the organ is made highly sensitive to reflex action, and its persistent contraction is thereby secured after labour is over, and thus hæmorrhage rendered less likely, and retention of discharges prevented, and toxæmia from the absorption of their decomposition.

There is doubtless a broad range for option in the rendering of assistance; and much discussion has arisen as to the extent of this ground—some employing assistance very early in the case, others giving help very sparingly. I think a medium plan will be found the best, both clinically and politically, at least for beginners.

When, gentlemen, I come to the description of each kind of obstacle to labour, you will be good enough to remember these observations, which will not require to be reiterated upon each occasion. Their application can be readily applied by you.

After these general remarks upon obstructed labour, I will pass on to remark upon the effects upon the child of hard and prolonged labour. I might state this as a clearly recognised fact—that the longer the labour, the more danger for the child. I am not aware of any facts which point out that there is any advantage to the child in the process of labour. Everyone agrees as to the possibility of dangers to it. The only point is, how long may labour exist before actual danger arises? Before this question can be answered, we must understand the nature

of the dangers. They arise principally from two sources—1, pressure on the circulation; and 2, pressure on the head.

Undue pressure on the blood-current may take place even in the uterus, when the uterus is in very frequent action or continuously so. So that when either of these two conditions are present, the life of the fœtus is in more or less danger. Undue pressure may also occur when the placenta is pressed between the fœtus and the frequently or continuously contracting uterus. The funis may be subjected also to pressure, if it be placed on some prominent part of the fœtal body. Again, if the placenta be inserted near the os, and particularly if the funis be near its lower margin, then the fœtal head in passing must press; the lower the placenta or funis, the more the risk to the child.

And the risk is not altogether dependent on the check to its nutriment and the aëration of its blood; it has been found that pressure on the funis will make the fœtus in utero to inspire. If this take place, its head being in utero, there is a great liability of its drawing into its lungs the secretions. This is found a not infrequent cause of still-birth; of course particularly liable to occur in pelvic presentations. This will explain the liabilities of secale to cause still-birth, if not given in well-selected cases. Secale is not poisonous of itself to the fœtus, but rather, by its tendency to produce over-action, it checks the circulation, and causes indrawing of secretions and deprivation of aëration and nourishment.

Regarding the pressure on the cranium, one might say that the more ossified the skull is, the less likely is the interior to suffer damage; while the more plastic it is, the more the interior suffers. The brain-tissue doubtless is damaged; but, besides this, the overlapping edges of the bones sometimes penetrate the longitudinal sinus, and effusion of blood takes place, pressing on the brain. No doubt forceps can produce like results, but the uterine force alone is sufficient to do so, as I have myself seen, and even to fracture a thin skull against a prominent sacrum.

But the head will bear without damage a considerable duration of intermittent compression and of moulding, even though very severe, but it is impossible to fix the limits of toleration. For the mother, I think that the moulding of the shape of the head, especially in primiparæ, is an advantage to the subsequent employment of the forceps, which never can produce such general reduction of the diameter as can the forces of nature. So that if we deliver by forceps before this is fairly accomplished, we shall have to employ more severe traction than otherwise. Besides the immediately fatal effect of pressure on the brain of the fœtus, there is no doubt considerable damage done, which, though not resulting in death, yet in course of time shows itself in diseases of the nervous system; and it has been said that even for a year or a year and a half, after-symptoms, such as tonic contraction of the limbs, may arise, traceable to the effect of pressure in the birth, either by nature's efforts or by the forceps.

Again, long-continued pressure may produce on the scalp sloughing over the parietal eminences, as I have myself seen, or a caput succedaneum accompanied by effusion of blood, or, as it is called, a "cephalo-hæmatoma." This latter, however, though seldom serious, may be attended by suppuration, and for a long time by thickening.

It is impossible to give you any clear statistics of the untoward effects of prolonged labour on the child, but perhaps the cases reported by Dr. Collins, of the Dublin Lying-in Hospital, may be taken as a guide. Of 324 patients delivered naturally over twenty-four hours, sixty-one were dead, or about one in five.

In more protracted labours the death-rate is of course much greater, and it may be said to increase in a geometrical ratio.

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Mr. Charles Robertson, Demonstrator of Anatomy at the University of Oxford, and Curator of the Museum, has been presented with a handsome timepiece and some silver plate. The timepiece bears the following inscription:—"From many attached friends and pupils of Charles Robertson, Esq., Demonstrator of Anatomy in the University of Oxford, 1845-1874."

The Newton Abbot Dispensary and the Cottage Infirmary are to be amalgamated, and the premises of the latter in East-street will alone be occupied, by which a considerable saving of expense will be effected, while the subscribers to both institutions will have the same privileges as hitherto.

## ORIGINAL COMMUNICATIONS.

# UNUNITED FRACTURE OF THE HUMERUS.

By J. FAYRER, M.D.

The model of Dr. Livingstone's humerus, with its ununited fracture, at the College of Physicians on Wednesday week, recalled to my memory a curious and tragic occurrence that happened many years ago. When I was Residency Surgeon at Lucknow, in the year 1854 or 1855, a very fine, athletic Mahomedan came one day to the King's Hospital—which was under my supervision—for some ailment, and the resident medical officer called my attention to an ununited fracture of the patient's right humerus. This, he said, was the result of an accident some years previously. He had been a favourite *peilwhan*, or wrestler, at the Court, and, in a wrestling match before the king, he had been thrown by an antagonist, over whom he had previously been victorious. In the fall he broke his arm, and the fracture had, owing to some cause, not united. His occupation as an athlete was gone, and he had since been leading an idle life, lamenting his lost occupation and his place among the gladiators of the Court of Lucknow. Some other ailment brought him to the hospital, and, the ununited fracture attracting attention, I proposed to him that he should undergo an operation which might restore his lost power. He seemed very incredulous, but at once accepted the offer, and within a day or two submitted to the operation, which consisted of an incision down to the seat of the former fracture, and removal of the ends of the bone. He declined chloroform, and bore the operation with great fortitude. The refreshed ends of the bones were replaced, the wound closed and dressed, and the arm placed on a splint. Being a healthy man, of about forty, he rapidly recovered; the wound and the bone united, and to his delight he became convinced that he had regained the use of his arm, though it was somewhat shortened and considerably wasted. Shortly after he left the hospital, and I did not see him again alive; but I heard that he had left Lucknow soon after his discharge from hospital, and that he had been to Nagpore to seek occupation.

Some time after this, and when he had passed from my memory, I one day received a summons from the resident Surgeon to go and see a case of interest, just admitted into hospital. I went, and was shocked to find the body of my quondam patient, dead from many and severe gunshot wounds in the chest. He had done well at Nagpore, had regained his strength and prowess as a wrestler; but longing for home and sighing for revenge, he returned to Lucknow, and had only been in the city a few days, when, one afternoon, he met his former antagonist face to face in a narrow street of the city, somewhere near the Chowk. In those days all men, especially followers of the Court or of influential persons, went armed, and a favourite weapon was the *Shèr Butchha* (tiger's cub) or blunderbuss, which was, unfortunately, of course loaded on this occasion. Recognition was mutual, and action prompt. My old patient at once stopped and challenged his former antagonist, after the fashion of Indian athletes, by striking his left arm with the palm of the right hand—showing thus his regained power, and expressing his intention of meeting him and regaining the lost laurels. The response was quick and effective. The blunderbuss settled the question; for, before anyone could intervene, the weapon was raised, discharged, and the contents lodged in his chest. He was immediately brought to the hospital, but life was extinct, and we had not the satisfaction even of examining or preserving a very interesting pathological specimen. Natives of India, of all religious castes and sects, have a great dislike to post-mortem examinations, and a strong repugnance to portions of their bodies being separated from the rest, or preserved in museums; and so his friends took away the body, and we heard no more of him. The incident made an impression on my mind, which had passed away until the sight of the ununited humerus of the great traveller, who has ceased from his travelling and gone to his rest, recalled it to me the other evening. I never heard what became of the murderer. Such occurrences were not very uncommon in Oude in those days, and he probably escaped altogether, or at most with some light punishment.

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The Gold Coast.—The health of Accra is very bad. Small-pox is raging fearfully. The town is in a very unhealthy condition. The Europeans are all sick, and there is no doctor.

# FORTY-SECOND MEETING
OF THE
# BRITISH MEDICAL ASSOCIATION,

HELD AT NORWICH, AUGUST 11, 12, AND 13, 1874.

## ADDRESS IN OBSTETRIC MEDICINE.

By J. MATTHEWS DUNCAN, M.D.,
Physician to the Royal Maternity Hospital, and Lecturer on Midwifery in the School of Medicine, Edinburgh.

### PUERPERAL PYÆMIA, ETC.

NOWADAYS, as compared with even a quarter of a century ago, obstetrics have flourished and grown so rapidly that he who is called upon to give an address such as this cannot but feel embarrassed in the selection of the matters to which he would call attention. If he is not to present his audience with a mere catalogue of details, he must exclude great departments; if he is not to be a mere registrar and exponent of the opinions of others, he must further restrict the scope of his review.

At one time, and that so late as last century or early in this, the whole field of medicine could be with comparative ease occupied by one mind. The same man practised and also taught all its branches—medicine, surgery, and their subdivisions. If one man proposed to do this now, we should look on him as a foolish pretender. The great medical genius of the scientific Helmholtz already has narrow limits which it cannot overpass: the great practical talents of Thomas Keith and of Spencer Wells are restricted in their beneficence by close boundaries.

Rarely and at long intervals in the course of the ages a powerful mind is produced, such as that of a Newton in physics, who, using the scattered knowledge accumulated by his predecessors, succeeds by his own discoveries and generalisations in restoring simplicity where before there was complexity, and in making for his successors a sort of royal road to the science of his day. But such a master mind, while on the one hand it simplifies and builds by generalisation, does, on the other hand, increase complexity and number of incoherent details by stimulating progressive inquiry. We hope we shall never again see the return of those dark days when one man could dare to profess or to practise the whole science and art of medicine.

It is by division of labour that we secure growth, and it is vain to regret the feebleness of our powers. As each department of medicine grows, it is, like its parent stem, doomed to subdivision. He, however, who brings the widest attainments and the most varied talents to bear on his chosen branch, will, *cæteris paribus*, be the greatest in his department. But who is equal to the demands of any department? To tell the truth, there is not among us a single man who has mastered all the details and work of even one single individual topic. One finds that the histology of his branch fully occupies his powers; another is similarly placed in regard to its chemistry; a third finds full occupation in its physical relations; a fourth, gleaning behind all these, finds his hands full in trying to be practically useful to his patients.

Partly as a result of the subdivision of labour, greater progress is being made now than at any previous period in the history of medicine; and there is no greater exhilarant and stimulant of enthusiasm than that very progress which is the result of well-judged zeal. In the field there is work for minds of every kind, for talents of every description,—for him who truly observes and accurately notes details, for him who arranges or classifies, for him who experiments, for him who suggests and demonstrates conclusions, for him who confirms or overthrows by the process of verification. Every one of us should take some part in this work of advancing medicine, a more important part than that humble and useful one in which all should, in addition, take a share—the attentive listening to and applauding the diligent and the successful.

There can be no doubt as to what is the paramount cause of our more rapid progress in recent times. It is the adoption of proper method; it is the modern attempt to found or still further build up a science of medicine on what is known as the Baconian plan. Imagination and ratiocination are not even now excluded from the operations, but nothing is held as proved by mere reasoning; and when the philosopher strays far from the solid shore of rocky facts, he loses his intelligent audience, who have no interest in his occupation of beating the air. The medical man proceeds nearly in the same manner as the physical philosopher. He observes by the naked eye, then by the microscope, and this instrument he aids by numerous experimental plans of hardening, cutting, tinting, and staining. He applies so far as possible physical laws to explain natural and morbid processes. He institutes new experiments to elicit truth. He makes the same appeals to chemical science and to the practical chemist as he makes to physics and the physicist. He reasons on what he obtains, and tests the truth of his conclusions, verifying by further observations and further crucial experiments.

Everyone who knows the history of midwifery must admit that it is by these methods alone that progress has been made. The greater part of what has been attempted, and the greater part of what is being attempted, is not according to this method; and the labour is vain. The substantial progress, often seen at the time only by a few, and appreciated by a small circle, is achieved by scientific method, and is like the grain of mustardseed which grows and grows till it be a great tree. Obstetricians can justly boast that, in some departments, mere obstetrical knowledge is ripening into a science of obstetrics—a boast which happily some other subdivisional branches of medicine can truly make.

The first subject to which scientific obstetricians, as a matter of course, direct themselves, is natural labour in all its varied aspects; and it is in some parts of this that the greatest advances have been made. The great idea of "mechanism" so loudly proclaimed by Levret is in process of being worked out. The first stages have been nearly completed by the writings of W. Hunter and Smellie, of Ould, Solayres, Saxtorph, and Naegele. But, now that their inquiries are completed, we are landed in a more difficult and higher stage of this investigation, a stage demanding much more than the good powers of observation and description which sufficed for the former. Standing side by side with contemporary workers at these outposts of science, we are not good critics of the comparative value of their works; but among them we may signalise names familiar to you all—Hecker, Kehrer, Schroeder, Poppel, Haughton, Schatz, Küncke, Schultze, and many others.

The majority of practitioners, however, take far more interest in the management of morbid labour than in any other department of obstetrics, and this for the evident good practical reason that there lie the questions of the highest, immediate, most pressing urgency—their difficult cases and how to manage them,—questions which, in the interests of the poor patients and of the anxious practitioners, brook no delay, which cannot wait for the slow decisions of science, however valuable these may be when at last they do come. But, even though science is not at hand to offer the solution of difficulties in practice, it is the duty of every obstetrician, with a view to the advantage of his confiding patients, to watch the progress of science, if not to contribute to it, as well as to select more or less empirically among modes of treatment. He should at once contribute to build up science, and at the same time be ready to meet in the field of practice the great difficulties that suddenly come in his way. Like the Jews of old, he should work with one of his hands in the permanent work, while with the other hand he holds a weapon wherewith to fight against Sanballat and Tobiah. He who directs his professional life after this manner will certainly be the best practitioner, the most useful to his immediate patients, and peradventure happily useful indirectly to the patients of all instructed practitioners in all coming time.

There is no department of obstetrics from whose scientific progress more is to be expected by the mere practitioner than that of morbid labour. This is a branch in which a great deal of valuable work has been expended with invaluable results, but much more still is required before we can style our practice rational or scientific. Morbid labour in contraction of the pelvis is a well-known and typical part of this practical department; and, to permit brevity as well as to give point to our remarks, let us be supposed as referring to it alone meantime. Now, where is the practitioner to look for guidance in this matter? He can nowhere find a secure resting-place. What views is he to adopt as to mechanism? What treatment is he to pursue? What instruments is he to use? Whom is he to adopt as his guide—Collins, or Simpson, or Dubois, or Hodge, or Barnes, or Hicks, or Spiegelberg, or Schroeder, or Leishman? He must act, and to the best of his judgment and ability. To decide among these able and ingenious but discordant

advisers he is unable, and there is no hope of his being very soon in a position to do so. However dogmatically the teacher may write on these subjects, he settles nothing for anyone but himself and his disciples. The elementary data necessary for arriving at conclusions on these subjects are not yet acquired; but they are being rapidly elaborated. When they are worked out, then there will be a vast diminution of the area over which there is at present mere difference of opinion; and many practical directions will flow from such knowledge which, not then resting on opinion, will command, nay compel, general consent.

To secure this position for the practice in contraction of the pelvis, there must be, first of all, a nearly complete view of the whole mechanism of natural labour, not merely of what is popularly called mechanism in our text-books; and we know that we are very far off from this complete view. Then pelvimetry must be improved, and even uterine craniometry. Then the modes of progress of labours in contracted pelvis of different degrees and kinds, and both when assisted and when unassisted, have to be made out. Then we have to study the explanations of these modes of progress. Then we have to accumulate experience and laboratory experiments of complexity and variety in order to discover what is the best direction of treatment. Then we have by similar means to find the tools best suited for effecting our varied purposes.

In every one of these departments, we are proud to say, most valuable labour is at present being expended, and light is being converged on this great practical matter—delivery in cases of contracted pelvis. Till this light makes the subject clearer than it is at present, we can have no final adjustment of our differences and difficulties; mere dogmatic empirical teaching must be allowed to prevail. We must, as people do in matters of politics and religion, choose our authorities and do our duty under them as we best can. It would be tedious to enumerate the names of men who have recently contributed to the progress of this subject; but, at the risk of making omissions which are to be regretted, we may signalise among foreigners Michælis, Litzmann, Hecker, Kehrer, Dohrn, Spiegelberg, Olshausen, Fehling, Cohnstein, Pajot, Joulin, Breisky, Braun, Martin, and von Haselberg; and among ourselves Radford, Churchill, Simpson, Barnes, Hicks, Playfair, and Kidd.

After natural and morbid parturition come subjects of far more difficult investigation, natural and morbid puerperality. As their secrets are far more deeply hidden, so our progress in bringing them to light has been less and is more recent; yet it is made in a way strictly analogous, if not identical, with that which has conducted us to so much acquaintance with parturition. The steps of natural healthy recovery from childbearing are first investigated; and here much has been attained through the labours of Kölliker, Farre, Priestley, Robin, Friedlander, Turner, and many others. Then, in logical order, we come to morbid puerperality, the subject more immediately interesting to accoucheurs, one of the most important topics, not in obstetrics only, but in the whole of medicine, one which has been discussed with an excessive copiousness, but with very little advantage till recent times. There is in the whole large library of puerperal diseases not a work of considerable value before the early part of this century. We have to come down to the names of Dance and Cruveilhier, and Robert Lee, and Virchow, and Pasteur, and Sanderson, and Lister to find the indistinct bridle-path which is quickly becoming an evident broad and great line of beneficent scientific progress, a progress whose practical results will overflow, not obstetrics merely, but surgery also and medicine proper. Old books on puerperal diseases are full of disjointed facts and mere discussions. It is only now when we have resorted to statistics, to anatomy, and to researches by the microscopist and the chemist, that our way clears up towards a comparatively full intelligence of the awfully important puerperal diseases. The old works of Puzos, of Willis, and of others, are nearly as valuable as most of those of the last generation of authors. But since the times of phlebitis and lymphangitis began, this department has ceased to move in a circle of no progress, and almost every day we are reaping new increments of knowledge, not only valuable in themselves, but indispensable to still further advances.

In connexion with this subject, there is a preliminary inquiry whose importance is self-evident, and which, remarkable to relate, has only recently been discussed formally, and with sufficient means—the mortality in childbed, or total mortality of childbirth and in childbed. How many women die from all causes during childbirth and in the puerperal state? Of course, such a question, lying on the surface, has been considered and answered, but the responses have been most insufficient and erroneous. The ordinary belief seems to be that there is, in connexion with childbirth and lying-in, no mortality in a well-conducted practice. Miss Nightingale says that deaths from puerperal diseases ought never to arise after delivery in a properly conducted and managed institution for lying-in woman. In a late number of one of our principal medical journals, appears a report of one of these properly conducted and managed institutions. The hospital is a military one, and not a death is reported; and the article is evidently written with a view to show benighted civil obstetricians what is the result of proper conduct and management. I have often heard sanguine medical men say that in the course of a long and large practice they had not had a single fatal case. Now all such beliefs, reports, and statements are mere encumbrances of the inquiry, and are to be thrown overboard, if not more ungracefully dealt with. We have no time to trifle with such nonsense, for we are everywhere surrounded by awful deaths in childbirth and in childbed, where there has been, so far as can be discovered by ordinary mortals, nothing but proper conduct and management.

Another response to this great question is familiar to all; it is derived from Merriman, and has often been repeated, not only as evidence of the mortality of childbirth, but also to show the successful progress of obstetrical therapeutics by the rapid diminution of the maternal mortality. It requires such a stretch of credulity to place the slightest confidence in Merriman's tables, that I do not regard myself as justified in taking up your time any longer with them. More recently, and on much higher, even on official authority, somewhat similar statistics have been proclaimed as evidence of the progress of obstetrical therapeutics from decade to decade; but, alas for us! the evidence will not bear inspection, and we shall not inspect it. Even now, in 1874, we are only striving to reach a sound conclusion as to this mortality; and after all our labour, official and private, have no statistics to be relied on for the comparison of the results of successive decades or of longer periods. The importance of the question needs no demonstration, and it must be solved in a scientific manner. We are seeking not what we fancy or wish, but what is. There can be no doubt that the death-rate does represent marriage and childbearing as a most perilous ordeal for a young woman to encounter; and it is not good reasoning to use this, as a great author has done, to prejudice us against receiving what may be proved. During the whole life, including intra-uterine existence, the female half of mankind has a great advantage over the male in point of mortality, except that for a considerable time childbearing brings the female nearly to the level of the male; and that, for a less time, the risks of primiparity sink her below him. Childbearing is in these kingdoms the special, and, so far as known, the only special great cause of enormous increase of female mortality above what it would otherwise be. Primiparity produces a great exaggeration of the childbearing risks. It is this mortality that we seek to estimate, and you observe it is of the highest human interest; but it is for medicine of special importance, being a cardinal element in the solution of the question as to the value of hospitals. These noble institutions, the lighthouses of practice, have had their reputations tampered with on the most insufficient grounds. If we are ignorant of what may be called the normal mortality of childbirth and lying-in, how can we justly judge the hospital mortality? If we do not estimate the excess of special, and, in a sense, just causes of mortality in hospitals over those acting in the country generally, how can we fairly measure the salubrity of maternities? It is impossible to do so, yet there has been a lamentable and injurious amount of such mere cavilling with institutions whose reputations should be too sacred for any but the most solemn and logical consideration.

Among the Chinese, puerperal mortality is held, according to Dr. Jamieson, to rise as high as from 1 in 12 to 1 in 20—an alarming and scarcely credible statement; yet Dr. Thin, lately of Shanghai, believes it to be true. Some statistics of the city of New York, recently published by Fordyce Barker, yield a puerperal mortality of 1 in 35, a terrible result; and on the surely extravagant admission that a quarter or even half of the births were not registered, we have here a very high figure. Faye states the puerperal mortality of Prussia as 1 in 84; and that of Finland, according to Pippingskjöld, as 1 in 106; and that of Norway as 1 in 131. I found that in Edinburgh and Glasgow, in 1855, the mortality of married women within six weeks after delivery was 1 in 107 at least.

From a large collection of data, and trying, however rudely, to get an approach to exactness, I estimated the mortality within four weeks after delivery as about 1 in 120.

Hervieux says there are places where for a long series of years this rate has not risen above 1 in 1000; but he must derive his information from some other planet than this, for certainly there is no such abode of the blest known among the inhabitants of this earth. Le Fort estimates the rate as 1 in 212; but his figures and reasoning are such as to render this determination unworthy of any reliance, as has been sufficiently demonstrated. Farr has carefully estimated this rate, and arrived at the conclusion that it is 1 in 190. But, however much we may be disposed to bow to his authority, we are bound to scrutinise his method; and, on doing so, it turns out to be very unsatisfactory. He is dealing with a system of registration which is not compulsory; he seeks to verify the returns relied on by appeal to the returners, which is something like trying to correct an error by itself; he made no independent search for the deaths of the delivered women; he made no correction for twins, nor for still-births. On all these accounts I regard his result as being not only out of keeping with the best of the others, but as not especially reliable. The data of foreign countries which I have given may be very good for aught I know, but then I have no positive knowledge of the care or of the circumstances under which they were compiled; yet we have always been led to regard the Swedish and Prussian returns as very valuable.

In this state of matters I was not disposed to allow the point to remain unsettled for this country, and I recently undertook the somewhat onerous task of thoroughly searching official returns, with a view of getting a figure that could be relied on. The determination which I am about to give can be erroneous only in the way of making the rate too low.

I found that there were registered in Edinburgh and Glasgow, in 1869 and 1870, about 52,000 births, and I found that within twenty-eight days after delivery at least 1 in 139 of the mothers had died. Now, several mothers additional may have died, and their deaths have been elsewhere registered, they having left their original residences. These would slightly increase the rate if they were found; but the rate is too low for another reason—namely, that all births of dead children are omitted. Now, this very serious omission of a large proportion of the most dangerous labours leads to this rate of 1 in 139 being far to low. How very far too low, we may to some extent conceive when I call to mind that, among Collins's 16,414 women delivered, 164 died; and of these 164, nearly one-half had dead children! It may be said, then, as the result of this investigation—the most careful and complete, so far as I know—that at least 1 in 139 died; and I add, for the reasons above given, and for others, that I have no doubt that at least 1 in 120 died. These terrible results, gentlemen, or something closely approximating, we must accept meantime, however forcibly they may demonstrate that marriage and childbearing are a fearful ordeal for a young woman to encounter.

My estimate, gentlemen, of this lamentable mortality of lying-in women is 1 in 120 within four weeks; and it is useful to have a fixed period of four weeks for various reasons. But we must not allow ourselves to be misled into thinking that puerperal mortality is over in four weeks. You are well aware that many bad cases linger on beyond the month of four weeks, to die beyond the reach of these restricted statistics; and that many others owe their deaths to puerperality, although the occurrence is later than four weeks after the labour. I have already mentioned that I have most carefully prepared statistics showing a mortality of at least 1 in 107 within six weeks after delivery. Further, I have statistics analysed which do, I believe, show that the mortality of puerperal women does not again fall to its ordinary level till a period not of weeks, but of months, after delivery. It would be a grand work for our young statisticians to show the wave of special mortality, beginning with conception and ending some months after delivery. Statistics have already shown the great rise of mortality, or the great wave of it that passes over the sex during the childbearing age. But we want much more than this, and especially the wave for the average individual pregnancy, labour, and lying-in.

I must conclude this already too long discussion by saying that I believe that in this country nearly 1 in every 100 women delivered at or near the full time dies in parturition, or before the puerperal state and its effects have passed over. This is, no doubt, an awful statement for women and for men. Whether it will deter them from marriage or not when they come to know it I cannot say, for I have no analogy to guide me. The risk from railway accidents is comparatively a mere bagatelle, when taken in any point of view, and I have made no inquiry as to its influence in deterring from travel.

Even the fear that women may be deterred from marriage and childbearing must not deter us from unmasking the real extent of the dangers they encounter; but I must only spend a few words on puerperal morbility. Besides dying at a rate of nearly 1 in 100, women have to encounter a vast amount of disease and suffering which does not end fatally. This has been called morbility, in contradistinction to mortality. Miss Nightingale and Dr. Farr, besides having very favourable views of mothers' chances of survival and recovery, go a great deal further than this, and enunciate a doctrine to which it is difficult to believe they have ever given a moment's reflection. They regard ordinary women as having no need of long nursing after lying-in; for it is all over, say they, in a few days after retirement and delivery in the rude compartment of a hut. It is unnecessary to take up the time of anyone of the most moderate experience in confinements and diseases of women among the poor or the rich, among the civilised or uncivilised, with a deliberate demonstration of the tragical injustice of their statement. I only refer to it here as it forms a contrast with the truth as to puerperal morbility. This subject has been illustrated by many authors, among whom are Späth and Landau, who confine their researches to morbility shortly after delivery. The latter, taking temperature as a criterion, estimates puerperal morbility as affecting 1 in 6. His valuable experience was in an obstetric hospital, and it requires corroboration. Besides this, he takes no account of the many ulterior diseases coming on after so-called recovery.

Deaths during parturition or the puerperal state are often conveniently arranged in three sets:

1. Childbirth deaths.
2. Puerperal or metria deaths.
3. Accidental deaths.

A woman dying during post-partum hæmorrhage undergoes a childbirth death; a woman dying of puerperal fever undergoes a puerperal or metria death; a woman accidentally poisoned by laudanum shortly after delivery undergoes an accidental death. In cases such as these the placing of the death in its class is easy, but there are a large number of cases regarding which there may be just difference of opinion as to which of these three groups should receive them: hence the classification as used in practice cannot be relied on as embodying a scientifically accurate statement of any point—a circumstance which, for the conduct of various important discussions, is much to be regretted.

But though this is so, there is unanimity in placing puerperal fever deaths in the second category, that of puerperal or metria deaths, and in giving it the horrid pre-eminence over all other causes of mortality in the three combined categories. For obstetricians and for the world, then, this is the subject of first importance in midwifery, and it has attracted a corresponding amount of attention, and never more than at present, and certainly never with so much advantage.

The oldest writer on puerperal fever—Willis,—whose book was published two hundred years ago, propounded a theory of this disease, which is remarkably like that now in vogue among the best pathologists. He regarded it as having some connexion with a uterine wound; but then he did not know the nature nor the anatomy of the uterine wound, and he did not think any of the other wounds or injuries of the lying-in woman important in the matter. He regarded the disease as a fermentation in the blood; but his notions as to fermentation, its causes and results, were imperfect in themselves, and extremely unlike ours. He attributed to fancied sulphurous particles somewhat of the importance and place that are now given to the bacteria of Mayrhofer, of Lister, and of Heiberg, or to the micrococci or globular bacteria which Orth, and I believe Heiberg also, regard as holding the supremely baneful position among these noxious beings. Our new theories of puerperal fever must be tolerated, because, as philosophers, we delight to frame them; and they have a certain utility which this is not the place to discuss. The new theories far surpass the old ones, which deserve more thorough displacement and rejection than the profession has yet awarded them. The new theories are based on an accumulation of facts whose collection is most creditable to modern science. These valuable facts have been the fruit of the ceasing to philosophise, and the struggling to observe and to experiment which are the characteristics of modern pathology. As in parturition, so in the puerperal

state, the progress has arisen from discovering mechanism, although we do not speak of these advances in such terms. What are our discoveries in the anatomy of the lymphatics but the mechanism of puerperal fever or a part of it? What are thrombosis and embolism? What is the conveying and diffusion of bacteria, or of any septic poison? What are our antiseptic precautions? By statistics, by observation, by experiment, we accumulate facts more or less pertinent to the subject, and we arrive at theories having a wider and more solid basis than those of our predecessors, who long and till recent times, misled by the *ignis fatuus* of an essential puerperal fever, were destined to make little real progress till they threw that notion aside and began working at the matter again according to better method.

No theory of this subject can be regarded as final or sure. But the time has come when obstetricians should try to leave off the use of the convenient term puerperal fever, because it embodies error. There is nothing essentially puerperal known in it; nor is there anything of the nature of a fever, as that term is generally understood. A new name, already widely used, is to be found in the already comparatively old term, pyæmia. This new name can be of only temporary utility, but that utility will be very great, and continue till advancing science displaces it by a better, as it should now displace puerperal or childbed fever. It will then have served its time by carrying the ideas of generations of practitioners away from the old, flimsy, and extensively erroneous speculations of the past to the more substantial of this day. It is not to be supposed that pyæmia is a term to be analysed into its component parts and held as implying purulent blood. That was once the meaning of pyæmia, but it is not so now. The crude pathology of Piorry is already almost forgotten, and his term pyæmia is used extensively among the best pathologists as a comprehensive word, identical with or including the septicæmia and ichorrhæmia of certain others. It sounds like an adoption of humoralist views, but in it there is as much of solidism as of humoralism, and there is in it vastly more of modern science than in the term puerperal fever.

Pyæmia occurs in several forms, which are characterised each by more or less peculiar symptoms, but most distinctly by the pathological appearances discovered post-mortem. There is that most widely known when you have septic emboli, and scattered abscesses caused by them, and perhaps otherwise also. There is that where you have inflammation of the peritoneum and other serous cavities, including the synovial and endocardial. There is that where the mucous membranes are chiefly affected—the muco-enteritic. And, lastly, there is that where the only results found after death are—alteration of the blood, enlargement of the spleen, the liver, and degenerations of their most important tissues, with similar degenerations in other organs. It is this last which, often rapidly fatal, was described by Helm, and is now often called acute septicæmia. These are the cases which the superficial pathology of our young days described as having no post-mortem appearances at all. An autopsy in those days was made by any practitioner, occupied only a few minutes, and the observations made were of corresponding value. Now an autopsy is a matter understood to demand the labour for a long time, often for hours or even days, of an expert. On these fruitless necropsics, where no appearances were discovered and none supposed to be discoverable, was founded, as you will remember, an argument supposed to be of clenching potency in favour of the essential fever character of the disease. But I confess I have never been able to discover either the logic or the power of the demonstration.

Easily getting rid of this old argument, we come sharply into contact with a new difficulty. When I say that Weber, Bergmann, Billroth, Hüter, and Verneuil support the doctrine, that Olshausen holds it an open question, and that Sanderson, in his essay on the "Infective Product of Inflammation," demonstrates truths which seem at least to favour its pretensions, you will see that the matter has already occupied great minds. The doctrine is antithetical to the essential fever notion, for it states that pyæmia, or so-called puerperal fever, does not essentially differ from ordinary inflammatory fever, such as is called healthy, except in degree, and that the modes of induction of these feverish states are identical, or nearly so. From the slightest pyrogenous effect or merest evidence of morbility, as discovered by the thermometer, up to the most rapid of Helm's cases of acute septicæmia, we have one disease in different degrees or forms, all depending on a chemical poison of Schmiedeberg and Panum, or on the bacterium of Mayrhofer, of Lister, of Klebs, of Waldeyer, of Heiberg, and of Orth, whether this bacterium be the poison, or only its carrier. That there are weighty reasons for entertaining this view must be admitted, and among them not the least is the wonderful results of the antiseptic system of treatment, as not only preventing pyæmia, but as preventing ordinary inflammatory fever. But practitioners of my own age, or greater, will find it difficult to get rid of, or controvert, the *primâ facie* evidence in favour of the old views afforded by the great array of facts and ideas which forms the basis of our daily reasonings in the guidance of practice in healthy and unhealthy inflammations, and which furnish a set of arguments which have been well stated by a reviewer in a late number of our medical quarterly journal.

The disuse of the term puerperal fever, and the replacement of it by puerperal pyæmia, is a change which has already been carried out by many of our best obstetric authors. The old designation is so impregnated with erroneous and misleading theory that it cannot, within a reasonable time, be purified, and will probably be most advantageously subjected to destructive cremation. Fordyce Barker, a recent American author of great intelligence, still upholds the old banner—"an essential fever peculiar to puerperal women, as much a distinct disease as typhus or typhoid." He well knows how pathologists believe they have torn this view into tatters, and he ought to have given us good evidence of its being reparable, if not actually rehabilitated, but he does not even attempt the difficult task. When we are asked for evidence as to the specific characters of typhus or typhoid, we can easily produce them, and defy the farther destructive analysis of these diseases. It would be a waste of time to go over the special history of the causes, progress, and results of these diseases; they are well known, clear, and convincing to all. For puerperal fever we have no such characters—no such evidence. All the evidence brings the disease into the closest alliance or identity with surgical pyæmia. The grand modern history of pyæmia is, in fact, at every step of its progress, the history of the elucidation of puerperal pyæmia, or of so-called childbed or puerperal fever.

One error is sure to bring another in its train, and so we have the widely prevalent belief that this disease is like cholera, or small-pox, or typhus, in occurring sporadically, but chiefly epidemically. Here it must be observed that many authors use the word epidemic carelessly, or as synonymous with endemic—a common error, which should never be committed. But, knowing this, we find them almost universally believing in real epidemics of puerperal fever, describing them as sweeping over a country or devastating a continent. It is well known, and indeed needs no further proof, that the disease has often the appearance of being endemic in a hospital, that it attaches itself to and follows certain individuals in their practices; but I have not been able to find anything worthy of the name of evidence to prove its epidemic prevalence at any time or in any large district. You are all, no doubt, familiar with the long descriptions and marvellous statistical compilations adduced as evidence of this doctrine by our best writers, especially by medical historians, among whom Hirsch is pre-eminent. But when these statistics are subjected to scrutiny, they are all found wanting, as may be made plain by one example, and the examples are all from old times. We have few epidemics described in recent times, and these few do not produce respect for the doctrine implied in their description. Yet though there are few descriptions now, there is still everywhere the erroneous belief. Epidemics are described as having occurred in Edinburgh in 1772, 1814, 1825, 1833. But it is mere assertion. There is not a tittle of proof that the disease was not as prevalent in every year as in the years of the so-called epidemics. When a physician, struck with awe by a few cases, writes a description of them, down it goes in the statistical tables as an epidemic; and the year of it is not always that of the cases, but sometimes that of the publication of the pamphlet or book. When the horrid mortality rises in a hospital, from overcrowding or other causes, down it goes again as an epidemic; and with this supply of burlesque evidence the manufacture of epidemics never ceases. Registration arrangements are not required to show the epidemic character of cholera, or of small-pox, or of other fevers; and, when we do get the valued registration statistics, we get the proof in proper form. But if puerperal fever is to be shown to be ever epidemic, it must be by regular modern registration statistics. The prevalence of it is happily never very great, comparatively speaking, and, again, it is never extensively or long absent; and, when we appeal to such statistics of metria

as are accessible, we do not get proof of epidemic character. We find it always present, in every country, in every community. It is easy to get proof of the epidemic characters of fevers, but not of puerperal fever. He who studies this point will find metria to vary in its ravages as pneumonia does; he will find cholera or scarlatina varying in their ravages according to a quite different law.

As the disease is erroneously believed to be a fever and to occur in epidemics, so we have a corresponding erroneous theory of its origin or causation. Many authors delight to speak of cosmic or of telluric influences or of miasma as producing the disease, and such subjects are favourites with a certain class of minds which find it most agreeable to enter at great length upon those topics of which they know very little or even nothing. For such there should be a puerperal Zadkiel. It is very difficult to find any evidence for the existence of a miasma even in the air of a pestilential hospital, for puerperal pyæmia prevails in such a manner as is scarcely reconcilable with the miasma hypothesis, and, on the whole, easily reconcilable with more or less direct communication with diseased neighbours, as Veit has ably shown. Among the circumstances of prevalence to which I allude are the comparative immunity of women brought into the hospital already delivered, the special liability of primiparæ, the special liability of those who have tedious and difficult labours.

Again, as the disease is believed to be a real or essential fever, so, of course, it is believed to be contagious and infectious, or both—whatever these terms may mean. In recent times, this mode of communication has come to be regarded as so certain and yet so subtle and mysterious that many teachers and a great body of practitioners have been terrified out of their senses by it. One cries out that the obstetrician must not wear gloves; and it would be just as rational to say he must not wear clothes. Perhaps he might be permitted to paint, and go about his practice as the Ancient Britons fought. Many say that the practitioner who has a case of puerperal fever must give up his practice and go through various processes, and not return to his avocations for a period varying from a fortnight to six weeks. Others on this point speaking logically, go further, and say the accoucheur should give up his practice not only if he has on hand a case of puerperal fever, but of many other contagious diseases, such as scarlet fever, typhus, small-pox, measles, erysipelas, fetid abscess, etc. Of the many who propound or teach such doctrines, I have never known one who practised them, and I cannot say their feelings on reflection are to be envied. If such be good doctrines, they are, of course, equally good for physicians and surgeons as for obstetricians, but the poor obstetrician is laden with restrictive burdens which his medical and surgical brethren do not recognise or touch with one of their fingers. Yet, the old proverb tells here that "What is sauce for the goose is sauce for the gander," and accordingly physicians and surgeons must follow the rules they inculcate on the accoucheur. In truth, these extreme practical doctrines of contagion are absurd, for they render all practice, whether medical, surgical, or obstetrical, an impossibility, or at least reduce the number of patients cared for at a time to one, which amounts to the same thing. In this matter much error and evil are, I believe, introduced by confusing the duties of the practitioner with those of the nurse—two quite different and almost, if not altogether, incompatible occupations. A practitioner must always, in such circumstances as we are now considering, carefully eschew undertaking the functions of a nurse, for, if he do, he must submit himself to the code of rules that regulates the conduct of nurses. If, avoiding a nurse's duties, a medical man of any kind cannot make himself medically clean in hands and person and dress, all kinds of medical practice as at present carried on are impossible with due regard to the safety of patients. Everyone who knows the safety of actual medical practice must see that such views of contagion end in absurdity. But it is not, despite all this, to be supposed that practitioners are not bound by the most solemn considerations to take most scrupulous care against being disseminators of disease; and there is no disease with which they deal, where such care is more imperative on them than puerperal pyæmia. The puerperal woman presents in her contused, lacerated, and inevitably wounded passages the most favourable nidus for the reception of morbific material; and the woman suffering from puerperal pyæmia in any of its forms, and patients suffering from some of the allied diseases, present this morbific material in its subtlest and most potent essence. A well-demonstrated communicability arises from this source. No other has been demonstrated, but it is possible that in an ill-managed hospital there may be some other. For the existence of another source, several of the best recent authors offer slight evidence; but, on the other hand, its existence is rendered very doubtful by the alleged absence of pyæmia from those surgical hospitals or parts of hospitals where the antiseptic treatment of Lister is properly carried out.

Another result of this extravagant and superstitious dread of contagion is what I deliberately call the slandering of our noblest and most useful institutions—hospitals,—and in that word I include all hospitals for the sick, not those for lying-in women only. Although it is against the latter that most of the foolish talk is directed, it is vain to suppose that they alone suffer. If one kind of infirmary be indefensible, so are all kinds; they must stand or fall together. The laws of pathology are not varied in nature with a view to the misfortunes specially of lying-in women. No doubt, the slandering is done with an excellent intention, under a good motive, but it is none the less what it is called, censuring injuriously and falsely, or without sufficient evidence. There have been, and there may be now, maternities which are justly calumniated as injurious, but that fact is no excuse for calumniating all. After abundant evidence has been adduced to show the directly and indirectly erroneous character of Le Fort's statement, that while the mortality of hospitals is 1 in 29, that in private practice is 1 in 212, a recent lecturer on pyæmia repeats it as if it were uncontested, and weakly appeals to authority on a point capable of scientific demonstration. We have reliable and large statistics to show what a moderately good hospital is, and we have no thoroughly reliable evidence that better results are anywhere obtained, whether within a hospital or in private practice. Among the good, I place the Rotunda of Dublin, the reports of whose recent condition you may have seen from the pen of Dr. George Johnston, its present master. So great is this superstitious dread of hospitals and reliance on imperfect statistics, that one eminent author believes he has made out that amputation of the forearm performed upon a poor man in his cottage is thirty times less fatal than if it were performed in a hospital. The paradox is not to be received, because its basis is inadequate; and, considering whence come most of our hospital patients, I wish we had from this author some theory of the healing virtues of the concentrated and various filth of a Highland bothy or cottage, or of a den in the Edinburgh Cowgate, or the London Ratcliff-highway, accompanied, as it often is, by every abomination physical and moral.

As hospitals are in this facile manner made out to be bad, so, of course, large hospitals are worst, and statistics are again appealed to in support of this view. Were it not that a recent lecturer on pyæmia repeats this statement, I would not here allude to it, for it has been shown to be groundless by demonstrations as good as can well be imagined, but which seem not to have reached the eyes or mind of this eminent surgeon. Siebold believed that lying-in hospitals were so useful that shutting them up would bring far more serious evils than an occasional outbreak of puerperal fever. Whatever soundness there may be in Siebold's judgment, I prefer, with Steele, to adopt a different view of maternities, and to look forward to the time when there will be no endemics of puerperal pyæmia, but only sporadic, or what are called autogenetic, cases.

Other errors connected with the old and still prevalent opinions regarding puerperal fever, though worthy of comment, must be passed over; but one, from its importance, demands notice. It is, that this disease is a kind of cholera, or a kind of typhus, or a kind of scarlatina, or owns the same or similar causes. In this country, it is almost exclusively the identity with scarlatina that has found supporters. But at home and abroad the doctrine has, in some form or other, been extensively entertained. It is to be carefully distinguished from that reasonable view of Pouteau, Alison, Sidey, Nunneley, and Tilbury Fox, that the disease has close alliance with erysipelas, and, I might add, with the diffuse inflammation of Duncan—a view which has been partially adopted and signally illustrated by Virchow in his now celebrated paper "On Diffuse Puerperal Parametritis." Scarlatina is a source of terrible danger to lying-in women, and scarlatinoid rashes are seen in some of the worst cases of septicæmia; and herein probably lies the attractiveness of the theory. But, unluckily for its supporters, and especially for the most recent, the theory has been disposed of by the researches of Hirsch and of Veit, who, by statistics of the comparative prevalence of scarlatina and of puerperal fever at different times and at the same time, have

shown that there is no relation between the two. This argument against the theory is far stronger than any in favour of it, and must meantime be held as conclusive. It had been urged by these authors and by Späth before the *Lancet* did the good service of bringing Farr into the field on the same side.

Every change in doctrine or in name does not necessarily indicate progress; often, indeed, it indicates retrogress. Such unfortunate changes arise more frequently from error in philosophising than from error in observing. Among such there is one in the history of our present subject. It has by some pathologists been proposed, not only to continue the name puerperal fever with all its adherent errors, but to go far towards introducing like errors into surgery by describing the allied diseases there as surgical fever. Had there not been the erroneous use of the word fever in childbed diseases there would undoubtedly have been one hindrance less to the general acceptance of modern views. Progress in surgical pathology runs no risk of being now impeded by the false name, surgical fever; and its adoption will certainly not do any good. By adopting, instead of puerperal or childbed fever, the term puerperal pyæmia or some similar one, we, by the mere use of words, enforce the argument for a great medical generalisation, making the gains of surgical and obstetrical science mutually beneficial.

It must not be supposed that there is in the mere change of a name any real progress, however much such change may foster right views. Nor is this change of name to be held as even tantamount to a change of theory, from a false to a true one. The present state of our knowledge is not such as to justify a sense of great security in any theory. Yet theories are very attractive, nay useful, and the tendency to frame them, whether prematurely or not, is in vain repressed. All the more ought we to maintain our minds in an unprejudiced attitude, ready to throw away the worse and cling to the better. Willis, who introduced the name febris puerperarum two hundred years ago, held that it was the result of sulphurous particles and fermentation. This has a faint resemblance to the new pyæmic theory, with its bacteria or micrococci, its septic and infective materials; but Willis's theory and every recent modification of it is a mere shadow compared with the pyæmic theory. The former can scarcely be said to explain or embrace any of the chief details of the subject, while the latter explains and embraces a vast number, is incompatible with none, and is the most promising road to still further explanation and generalisation. It is the last philosophic production of a vast array of modern observations and inquiries. It helps to increase the distance between us and the mere philosophisers, and to join us with the advanced guard of modern medical investigators, whose weapons are observation and experiment, not learned talk, however clever. When the physicist finds a theory of light propounded by the greatest of his kind to be inconsistent with his more advanced researches, he not only adopts a new one, but deserts the old nomenclature connected with the misleading hypothesis.

Many researches of different kinds have contributed, and are contributing, to converge scientific light on this greatest of practical obstetrical subjects; but scarcely one of them can be regarded as being even yet completed, while some are only well begun. In drawing to a conclusion, it will be well to take a glance at these various investigations, with which we may class some more general discussions, such as that of Spiegelberg, on this topic.

Van Swieten, Willis, and many old authors on puerperal fever, regarded it as a wound-fever, and Eisenmann's well-known work on the subject, published in 1837, is called "Wound-Fever and Childbed Fever." The wound which these, and even most recent authors, have in view is that produced by the separation of the placenta; but it is now well known, and has been often found clinically exemplified, that the disease may begin in a contusion or laceration of any part of the genital canal. Many of you have recognised the beginning of a fatal disease in a diphtheritic state of a slight recent perineal laceration, with surrounding redness and boggy swelling. I have already alluded to the recent advances of our knowledge of the anatomy of the placental wound, but already we know where to look for much more light on the subject. The anatomy of the lymphatics, to which recently Recklinghausen, Klein, Thin, and many others, have contributed, is not yet completed for the uterus. We all know the fine-looking and distinct, but very unsatisfactory, drawings of uterine lymphatics by Moreau; but we do not yet really know their actual anatomy, though very much progress has been made by the anatomical investigations of Lindgren, Fridolin, and especially of Leopold. The completion of this work will be an addition to the theory of puerperal pyæmia.

Following the as yet indefinite notions of a wound-fever, came a further true advance from Boyer, Legallois, Cruveilhier, Tonellé, Dugés, and Simpson, who combined to demonstrate the identity of what would now be called the rough morbid anatomy of patients dying after surgical and after obstetrical wounds.

Then came a grand piece of progress, consisting in the discovery and descriptions of phlebitis and lymphangitis, which we owe to Dance, Duplay, Cruveilhier, Robert Lee, Hecker, and Buhl.

We now reach our own times, and have a still grander progress of our knowledge to record, in the discovery of thrombosis and embolism by Virchow, Kirkes, Cohnheim, Buhl, and many others.

After these, come researches, whose bearings on this subject are certainly very important, but which are, in many respects, as yet immature and incomplete. We allude to the investigations or to the potency of septic poisons, connected with the names of Davain, Panum, Kehrer, Thin, and many others; the great and actively progressing researches as to the production, diffusion, and influence of bacteria of various kinds, by Lister, Klebs, Waldeyer, Sanderson, Billroth, Winge, Heiberg, Orth, and many others; the new researches of Sanderson on the infective product of all acute suppurative inflammations; researches also into the distinctive characters of the noxious or septic, and the innocuous bacteria.

Besides all these, many valuable results have been elicited from the analysis of experience in hospital and in private practice. In this way the influence of age has been ascertained, and especially of immaturity and of advanced life; so also the baneful influence of primiparity and of excessive child-bearing, and of twin-bearing; so also the baneful influence of severe and of complicated labour; so also the bearings of the duration of labour; so also the influence of earliness or lateness of attack after delivery; so also the baneful influence of inclemency of season; so also the dangers attending hospitals and the dangers of communications between the sick and the healthy.

But all of these researches, whether finished or still imperfect, do not, when combined, complete our modern view of this great subject. It is a subject in practical medicine, and we are practitioners. The great object of our work is to prevent or to remove the disease in our patients, and we have to inquire what fruits our knowledge produces for the comfort or healing of the sick.

Many remedies for puerperal pyæmia have been proposed, and their successful application loudly proclaimed and widely believed. Doulcet was even rewarded by the French Government for his discovery of the curability of this disease by ipecacuanha. In our own day new cures do not fail to make their appearance, and the advanced knowledge of our times would lead us to expect that they should be more rational, as the phrase is. But who is there of weight in the profession, now, who believes in any cure or in any system of specific treatment? All have been found wanting. Yet the wise physician of this formidable disease does not despair of guiding his patient through it, although he well knows its very dangerous character. Experience has shown him the utility of several means for relieving sufferings; and the favourable progress of a case may be encouraged, though not secured, by those invaluable directions which he may give as to diet and stimulants, as well as to more direct medicinal treatment of the genital passage, of the skin, of the bowels, and of the system generally.

But in this disease the physician has long been saying, not that prevention is better than cure, but that prophylaxis or prevention is to be chiefly looked after, and not cure. Great credit is due to Semmelweiss for the good he has done, especially to hospital patients, by his enlightened zeal in this cause; but the records of hospital practice sufficiently show that much more has yet to be accomplished. Prophylaxis is still farther to be carried out by attention to stop injurious communication between the sick and healthy, by disinfection, and by architectural arrangement—subjects which are all at present receiving much attention from the profession.

In the course of my remarks I have repeatedly referred to scientific researches, as to the poison producing pyæmia, and as to the effects of its concentration, and as to the connexion

of this poison with the presence and diffusion of bacteria. These researches have been carried on mostly by observations and experiments on the lower animals, and of their very great value there can be but one opinion. But there is a variety of circumstances which seem to indicate that the lower animals are not subject to exactly the same laws in these matters as man is, and certainly there must be great caution exercised in arguing in human pathology from the analogy of the lower animals. The most important of the researches referred to, however—those of Lister and his followers,—have been mainly carried out in man, and consist, in a great degree, in the attainment of results in practice equally wonderful and valuable; results that can, so far as we at present know, be attained in no other way. These results go far to justify the belief that pyæmia is a septic disease, and that puerperal pyæmia may be almost, if not altogether, prevented by the application to delivery of a practice based on antiseptic principles. We know how much has already been, and is, I am happy to say, daily done with success in this direction. But the rules of Semmelweiss, or any other washing of the hands, however carefully conducted, do not constitute treatment according to the manner of Lister. Such imperfect antiseptic precautions, by use of antiseptic gauze and otherwise, I have used with apparent advantage; but we have yet a long way to go in order to secure complete antiseptic delivery and subsequent treatment. To reach this desirable object, the efforts of several good minds are, I know, directed both at home and abroad; and some recent unpublished cases of successful antiseptic treatment of wounds of the penis, where periodical discharges of urine have to be permitted, supply a sketch in miniature of plans that might be applied to ordinary confinements. To say more about them I have no right; but I conclude by calling upon you to give your best aid to forward the grand cause of the increased safety of lying-in women.

## AN ADDRESS DELIVERED AT THE OPENING OF THE SECTION OF SURGERY.

By SIR JAMES PAGET, Bart., F.R.S.,
President of the Section.

I owe to being a Norfolk man the honour of being President of this Section, and certainly I owe it to that fact that when the honour was proposed to me I accepted it, for there was no other ground whatever on which I could have held such a position as this; but when on that ground it was proposed to me, I felt I was bound by a debt of gratitude to show myself, and endeavour, if I could by any means, to promote the success of the meeting of the British Medical Association in my own county. I very soon found that the honour brought with it, as honours usually do, a great responsibility, which was that I should give some reason for my being here, and say something of Norfolk or of what I had to do with it. And, naturally, I turned back to think of what Norfolk surgery was when I left it to be a student in London; and I soon found reason for having yielded to any invitation that could come to me from my county in the feeling of profound gratitude that I had to bear to those who were my first teachers, and among whom were found my earliest and now my oldest friends. I turned to my first case-book, commenced in 1830 and finished in 1834, when, just forty years ago, I left Yarmouth, where I was apprenticed, to proceed to the larger field of study in London. I had spent there four years, being apprenticed to learn the "art and mystery of a surgeon," whereupon let me say that the lawyers do us great injustice in the spelling of the word, which always implies that we have in our art some mystery or secret thing which other men should not dare to look into; whereas it is not the mystery, but the *mestiery*, the *métier*, the mere business and art of the surgeon and apothecary. In my own case-book I found nothing that in the present day would be worth recording—no more than the cases that might well be taken by any other boy, from sixteen to twenty, at his first sight of a large practice. But I found there some things which made me still fear (falling in very much with the tone of that most admirable and wise address that we heard this morning) lest in our progress we should have let fall some of the things which we had better have held, and are now regarding some things too lightly that then seemed very grave, and perhaps are so still. For among the records which I found are records of methods of practice now almost completely disused, and yet in which I feel confident there was much right. I find, for example, a large and almost uniform practice of bleeding for all acute diseases, for many chronic, for most of those that were unknown or uncertain, and for a large proportion of cases in which there seemed to be nothing the matter. Trying to learn something from these things, I came to one or two conclusions which I am sure the younger members of the profession need to have much impressed on them. One of them is that at the present day we undoubtedly overvalue the blood, and estimate too cautiously the loss of it. We heard after the address to-day of the impossibility of performing vivisections upon men. It was not impossible at the time of which I speak, for then there was a practice of vivisection performed on nearly all market days on those who wished to be bled, and the early part of my life was spent in this practice. On market days patients came, and I really scarcely know for what reason, except that it was a good old custom, and the county was then Conservative. They had some discomfort, and wished to be bled, and I bled them usually till they fainted, and the charge for bleeding was one shilling.

Now, looking at that, as I can with a very clear memory of its results, and with a more scientific tone of mind than I then possessed, I can regard those as a series of vivisections fairly performed for the determination of what is the influence of the removal of blood up to the point of syncope upon a comparatively healthy person. I think I can say surely that not one of these persons suffered harm. I kept my cases with much care, and I have a clearer recollection of that period of my professional life than I have of an equal period of any part of it which has since passed, and I verily believe that not one person suffered harm. There were a few who came afterwards with trivial inflammation about the wound, a few with light attacks of what might be called adhesive phlebitis: clots formed in the wound, and obstructed the vein for a time; but beyond that no damage, to the best of my belief, ever was sustained. Amongst these was a large number of pregnant women; for, in the eastern part of the county at that time, it was the general belief that pregnancy might not pass through its whole course without some mischief, unless a patient were bled; and in these cases, too, no harm whatever came. The custom seems like a comedy, but there are in it, and in the records of it, a series of facts of very great importance. They prove to my mind, as clearly as anything of the kind can be proved, that the loss of blood up to fainting, and, in some cases I remember, with those epileptiform convulsions that come with the loss of blood, is absolutely harmless. I will venture to say that there are few persons in this room who might not be bled to fainting, and to-morrow be almost unconscious of it, and perhaps, in this week of hospitalities, might even be the better. That fact, I take it, may be held by the practice of former times as perfectly assured; and we therefore probably take vastly more care than we need of the saving of blood in healthy persons. I am far from suggesting that any good followed this method of proceeding. I speak of it literally, as if it had been simply a course of vivisections to determine the influence of the loss of blood to the point of fainting upon a large series of healthy persons. Among the cases recorded, I also find that all who suffered from acute symptoms, especially from acute pain, with the ordinary signs of fever, were largely bled. That was a custom scarcely without fail. As soon as the hot skin, and a rapid pulse, and a flushed countenance were found, with local pain or any other acute symptoms—as delirium, for example,—at once bleeding was resorted to. I will not venture to say how much of real good was done by these cases; but this I will say, that I believe there is at present no remedy employed from which the immediate relief derived is so great or so complete as it was from bleeding. From time to time, I have the record, and many more times I have the clear memory, that after every bleeding there was a distinct expression of the very greatest relief, and commonly following that a firm belief that the bleeding had cured the disease. And this I remember—and I tell it as a guard against any suggestion that I should at once propose the same manner of treatment—that this relief of suffering followed in those who quite certainly were suffering from profound anæmia. Persons who were bloodless, pale, and faint, who yet complained of the continuance of the local symptom, were again and again bled, and again and again experienced temporary relief.

Call it again vivisection, if you will; at least, the fact is worth recording that for nearly all the most pressing symptoms

of acute disease bleeding was at the time an almost complete remedy. It would be impossible, from those records, or from any others much better than mine of the same time, to determine now by any method of analysis what cases gained real and what gained only passing or apparent relief; but I cannot for a moment believe that there were none among those cases that were not thoroughly and fully relieved by the proceeding. For what have we to believe, if we suppose they were not? Why, that all those whose names we hold in honour as the most sagacious teachers of that time, the men whose acumen we praise, whom we speak of as the keenest observers of their time, were at this point profoundly and guiltily mistaken. Can we suppose that those who were teachers then—to mention only those who were the great leaders of practice in this city at the time—men like Crosse and Dalrymple, and Wright and Lubbock, and the rest, were keen in all their observations of the diagnosis of disease, could forecast what would be its course, and judge exactly of its effects, and yet, in respect of that to which they gave the best portions of their lives and minds, the treatment of it, were even stupidly in the wrong, and doing grievous damage to those to whom they were seeking to do good? I will take any hypothesis of pathology rather than believe that. That there were cases greatly benefited I have no doubt, and one of the chief inquiries we have to enter upon even now is, which of the cases suffered harm, and which were really benefited by the treatment which we now neglect.

In another line was the almost constant use of mercury. For nearly all the chronic affections, for nearly all cases that were obscure, mercury was given to the point of producing some degree of salivation; and, amongst all the prescriptions that I dispensed most frequently, I suppose there was none nearly so frequent as a quarter of a grain of calomel and a quarter of a grain of opium every four hours. For that there was a traditional respect, which had been derived from a physician, I suppose, of very great sagacity, who had practised in Yarmouth some time previously—Dr. Girdleston. From all that is recorded of him, he must have been a very exact observer. He had seen much practice in Italy; and, although he was a man of remarkable presence—faith-giving in his mere appearance,—I cannot but believe that he did great good among the sick; and he had handed down this prescription, which prevailed from that time many years onward, and throughout the whole of my apprenticeship, for all obscurities, for all those things for which, I will venture to say, with not at all fewer mistakes, some now give bromide of potassium, and some what is called a light tonic. I have no doubt, even from my own cases, that sometimes their practice was mischievous; but I am equally sure that it was in many cases very beneficial. The cases in which it did good I cannot now recognise; but let me observe that it probably did good in a large number of the cases of which the real nature was at that time not discerned, and in a large proportion of the chronic diseases of internal organs which we now assign to syphilis. At the time there was no suspicion that syphilis affected any but the external parts. We know now a multitude of syphilitic affections of the liver, of the lung, of the spleen, and many more still of the nervous system, with syphilitic affections of the brain, which were at that time put down vaguely to chronic inflammation of unknown origin, or to tumours, thickenings, and productions of substances that needed to be absorbed; therefore mercury was given, and therefore mercury cured a considerable proportion of cases for which it was given; and therefore, as in the present time, having this power of curing a certain percentage, we assume that it will cure all diseases that look like those that are cured by it. This leads me to suggest (and I know not where I can suggest it better than to a meeting such as this, which will soon spread itself over the land, and be actively studying everywhere) that, whereas we are at the present time rather apt to think that pathology should be the guide of therapeutics, there is a large number of cases in which therapeutics should rather be the guide of pathology. The fact that a medicine cures a given disease is as much a fact, and quite as significant a one, as is the employment of a chemical test for discerning the nature of a solution. It can be repeated from time to time, and with the same results. There is hardly anything in the chemistry of complex bodies more sure than that quinine cures ague, and, spreading from that, that it cures a large number of periodic diseases; and as with quinine, so with mercury. If at that time the value of therapeutic tests for indicating disease had been fairly estimated, we should have come, by many years sooner than we did, to a knowledge of the syphilitic nature of a large number of internal chronic diseases. If it had been fairly said, "We have no clear knowledge of mercury as a remedy other than this, that it cures syphilis, and, therefore, that what it cures is likely to be syphilitic," we should have come at once to the knowledge of that which it took twenty years more to ascertain. We are, I believe, too much under the guidance of what may be justly called inferential therapeutics; because we know something of pathology, we may, therefore, proceed at once from pathology to the recollections of the remedies of disease. It is a fair method of study if it be not carried to excess, but it should be studied side by side with the other facts that therapeutics may just as fairly be a guide to pathological knowledge. But, after all, my knowledge of Norfolk and Norwich surgery are more with persons than they are with things, and I am bound by all recollections of gratitude to record some of them here.

One whose name was perhaps never known beyond his own town, where perhaps now it has been forgotten, was my first and good master, Mr. Charles Costerton, a man of admirable sagacity in his profession, a good anatomist, a good practitioner, and, above all, one who set a good example of continual study, and helped me in all the work I was disposed, and some of that which I was indisposed, to undertake. Then, as guiding him, those that were the chief guides of the practice of surgery in Norwich, and amongst them all the leader, Mr. Crosse, of whom it is very hard to speak in measured language, for if I were to speak of one who, better than all I knew at that time, and equal to any I have known since, had the qualities both for being and producing good surgeons, it was he. A profound student of his profession in all its branches, a seeker of knowledge wherever it might be found, in any language within his reach, a recorder of his facts to the last degree of minuteness, and one so in earnest that he spread about him a contagion of earnestness which it was indeed most hard to resist; and in a yet more personal sense the producer of great surgeons, in that one of my own pupils, the Vice-President, is his son and most worthy follower. With him as a colleague was one very unlike him, but who might teach other qualities not less valuable in surgery—Mr. Dalrymple. Our President, who, as you perhaps know, has been the author of admirable memoirs of his contemporaries and predecessors in the Norwich Hospital, has recorded of him that which we should be all so anxious to imitate, the almost distressing sense of responsibility which he continually felt; the way in which he had almost to be driven to that which he knew to be right, lest, by some accident or oversight, he should do that which was wrong; the constant dwelling upon all suspicions that he had not fulfilled his whole professional duty—a tone of mind not wise perhaps to be the master process, but yet most wise to keep, lest others should take the lead. And with him there was another, the very type of that which a general practitioner should be—Mr. Johnson, who was at that time assistant-surgeon to the Hospital—busy, active, and conscientious, and learning, as our admirable orator of to-day said it was most necessary to learn, the inner life of every family to which he went, the inner feelings of every patient he had under his care, till he passed, in nearly every house, from being not the mere surgeon or physician, but the wise, judicious counsellor, the other parent of the young, the intimate friend of all with whom he mingled. I remember others; for no man is in himself, I suppose, fit to be the whole and single study of many others, and our wisdom is rather to study that which is best in each, and make from all together the ideal which we would most imitate. There were men here with that happy audacity in surgery which enters sometimes as an element very necessary for the active life we have to lead. Of Dr. Lubbock, as a physician, I had no power of judging; but as a surgeon, which he was, I believe, much more than a physician, he was profoundly wise in his audacity, taking a lead where others might be wiser than himself, but often doing that which others dared not do, and doing it successfully.

There was another, too, from whom that at least might be learned, and of whom I must speak in that view with respect—William Webber, of Yarmouth—a man not wise or right in some other things, but in that giving an example from which all might study. These are some of my best memories of Norwich and of Norwich surgeons, and they have been maintained in succeeding generations by my finding, amongst my oldest friends, those who have held the lead in surgery since, and, in a generation yet nearer than theirs, amongst my own

pupils, those who still hold it. So that visitors of the British Medical Association when they come here, come to no common place for the discussion of surgery. Here it has been studied very gravely and very earnestly; here let it be so discussed, and not in a professional spirit only, but in a really scientific one. I owe to Norfolk, and chiefly to Norwich, much of that which led me in early life to go somewhat beyond the ordinary bounds of study into the range of science. It should never be forgotten that in Norwich was trained Sir James Edward Smith, the founder of the Linnæan Society, the leader of the botanical knowledge of his time. After him followed Sir William Hooker, best of all botanists of his time, the founder and outworker of the greatest botanical institution in the world, at Kew Gardens, whom it has been the great happiness of my life to have had in intimate friendship from my earliest years; who does Norwich the honour, let me say, of sending his own son to study surgery here. Then let me name Mr. Dawson Turner, a botanist, an artist, an antiquarian, one with whom anyone might study, and be helped to study, all that might help him both to the tone and temper and the true knowledge of his profession. From all these it would be wrong if anyone had gone without, I will not say succeeding in his profession, but without a thorough knowledge of the manner in which he might gain success, and an honest ambition for the success that they achieved; and if I put them all in my memory together, I should say that from them I learned that principle which I had tried, however vainly, to follow out in all my study, the principle upon which it will be well if we begin our present surgical meeting, that he that will seek the truth earnestly, with patience and humility, in the fear of God and the love of man, will surely find it.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## LONDON HOSPITAL.

### CASES OF GRAVES'S DISEASE.

[Communicated by Mr. Shapley, Junior Resident Medical Officer.]

*Case 1.—Proptosis of seven months' duration—Bronchocele of two months' duration—Discharged Relieved after a Month's Treatment by Belladonna.*

(Under the care of Mr. HUTCHINSON.)

Louisa T., aged 30, was admitted to the Augusta ward on April 23, 1874, under the care of Mr. Hutchinson. Patient has enjoyed good health up to her present attack, which began in October last. There is no family history of goître, and she has never seen anyone in her native town (Gravesend) with symptoms resembling her own. Nothing peculiar about her diet, having been accustomed to all kinds of food. Has not been a water-drinker. The first symptom of her disease was a "dreadful aching" in the eyes, which came on in the afternoon. She had been crying very much in the morning, having heard bad news. The next morning the eyes were much swollen, and were more prominent than usual, so much so that it was with difficulty that she could close her eyelids. The swelling has kept about the same ever since its first appearance. At the same time that the eyes became so prominent she had a bad frontal headache of a throbbing character, which has always remained in the same position. She did not notice the swelling in her throat until two months ago, when her attention was directed to it by her medical attendant. It has continued to increase slowly to the present size.

*Present Condition.*—The right lobe of the thyroid body is larger than the left, but neither is greatly enlarged. Distinct pulsation can be felt over both lobes. The swelling does not interfere with her breathing unless she takes violent exercise, such as running, but it causes an unpleasant sense of fulness in the throat. The measurements of the neck are—right side seven inches and a half, left side five inches and three-quarters. Occasionally she suffers from palpitation, which she thinks is due to her being a little nervous. Palpitation has come on quite recently since she noticed the proptosis. She has a voracious appetite, never feeling satisfied. Has suffered from diarrhœa, which is continuous for the last three or four months. Thinks she has lost a little flesh, but nothing marked. Since the onset of the disease she has become very "cross-tempered and ready to snap at anything": she can't help it. Often she becomes flushed without any cause whatever, and at night complains of heat. Feels so hot that the weight of the clothes is quite unbearable. Sleeps well when the sense of heat has disappeared. Sometimes she sees double, but this is not constant. Has muscæ volitantes. No myopia or hypermetropia. Pulsating vessels were seen in both eyes, but not constantly, sometimes being much better marked than at others. The catamenia are regular, but very scanty the last four or five times. The only physical sign of cardiac disturbance is that the first sound is much intensified.

*Treatment and Result.*—Patient was ordered one-sixth of a grain of extract of belladonna three times a day, which was afterwards increased to one-third, and then to one-half of a grain thrice daily. She continued in the hospital for about a month, gradually getting better. The first favourable symptom was the return of the catamenia to their natural condition, soon after which there was a marked diminution in the size of bronchocele, her eyes became less prominent, the diarrhœa ceased, and the palpitation became less troublesome—in fact, at the end of a month she was so much better that she thought it unnecessary to stay in the hospital any longer. She was discharged with strict injunctions that should any relapse occur she was to return at once.

*Case 2.—Proptosis, Diplopia, and Myopia of several months' duration—Absence of Bronchocele—Treatment by Belladonna and Aconite without Relief.*

(Under the care of Mr. HUTCHINSON.)

William R., aged 29, was admitted to the Ophthalmic Ward on March 20, 1874, under the care of Mr. Hutchinson. No family history of goître could be elicited, and he says that he never knew anyone suffering from a similar complaint where he lives (Wolverhampton). He has never had any particular taste either in food or drink. Has always enjoyed good health up to August last, when his left upper eyelid began to swell. This swelling continued to increase gradually until October, when he noticed that his left eyeball was unusually prominent, and that objects appeared double. These affections continued to increase up to Christmas without any pain, the only annoyance being a constant overflow of tears. About Christmas the right eyeball began to project, and pain in the left eye came on, which has increased considerably of late, so much so that it prevents him from sleeping; the pain is frontal, shooting from the orbit up over the course of the orbital nerve. The pain is worse at night, but is considerably relieved if the eyelids be strapped together. No pain in the right eye. No history of syphilis. Patient says he has suffered from palpitation as long as he can remember, the slightest occurrence causing his heart to "go all of a flutter." This feeling has not increased lately.

*Present Condition.*—The eyeballs are prominent, the left very so. Sees everything double. Is slightly myopic, but he thinks that his short sight is due to excessive reading. Complains of muscæ volitantes. This patient could not bear ophthalmoscopic examination, always suffering from a little ophthalmia. There is no bronchocele, the thyroid body not being enlarged in the least. No abnormal pulsation of carotids. His appetite is very moderate. Has not lost flesh; if any alteration in weight, he thinks he has gained. Complains of flushing, which occurs frequently, and apparently without any exciting cause; also complains of feeling very hot at night, so that he cannot bear the clothes on the bed. The frontal pain is worse at night, which, together with the flushings and sense of heat, prevent his sleeping well. Says that his temper has not got more irritable since his present attack, and that he is naturally of a good, generous disposition.

The patient was placed under belladonna treatment, as in Case 1, for upwards of a month, but without relief—indeed the eyeballs became more prominent. Tincture of aconite was then given in doses gradually increased from five to twenty minims, and the eyelids kept constantly closed and strapped with plaster, but without any apparent benefit.

After having been in the hospital a little more than two months, the patient was granted permission to leave for an hour in order to transact some business, and has not since returned. It should be stated that no evidence of bronchocele appeared during the whole time that the patient was under observation.

(*To be continued.*)

Sir Alexander Armstrong, K.C.B., Director-General of the Medical Department of the Navy, completed his annual inspection, last Saturday, of the several naval and marine establishments at Plymouth.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

# Medical Times and Gazette.

SATURDAY, AUGUST 22, 1874.

## THE ADDRESSES AT THE BRITISH MEDICAL ASSOCIATION.

Whilst they gave not the least sign of a halt in the forward march of science, the addresses at the British Medical Association showed more than the usual tendency to look back upon the past with tenderness and respect, and to admit that in departing from the wisdom of our ancestors we sometimes do wrong. This feeling it was which gave a great charm to the address of Dr. Russell Reynolds. Instead of scouting the idea of "Life" as an antiquated superstition, now supplanted by the belief in chemical and physical forces only, he fully admitted its "mystery"; and in noticing the therapeutics of our ancestors, he could not admit that the palpable relief given to a sick-headache upon the yellow evacuations that follow a dose of calomel was to be treated as a chimera, because a dog with no sick-headache, but with a biliary fistula, does not show the same reaction. The same conservative feeling was strikingly exhibited in that most interesting piece of autobiography with which Sir James Paget prefaced the work of the Surgical Section. Sir James testifies, not his contempt for, but his admiration and gratitude for, his earliest teachers. He fears lest in our progress we should have let fall some things which should better have been held fast. He recalls modes of practice now abandoned, yet in which there was much that is good. When he began professional work as an apprentice in Mr. Costerton's surgery at Yarmouth in 1830, it was the practice to bleed for all acute and many chronic diseases, and for many whose nature was dubious. As one conclusion from his recollection of the past and comparison with the present, he thinks we over-estimate the value of blood, and are cowardly in our excessive care of it. Healthy persons then came periodically to be blooded to faintness, and it did them no harm. Here was a true vivisection performed on the healthy man. Pregnant women, too, were habitually bled. The results of bleeding in acute diseases were always and unmistakably the relief—perhaps the temporary relief—of pain, and this was equally well marked in the anæmic as in the robust. It was absurd to suppose that the great practitioners of forty years since would blindly follow a practice from which absolutely no good resulted.

The same kind of remark may be made on the once popular practice of giving small repeated doses of calomel and opium in obscure chronic diseases. No doubt in some cases this was mischievous, but often the reverse; and modern research confirms the reality of the benefit by showing how many chronic diseases of the nervous system and viscera are due to an unsuspected syphilis. *Curationes morbum ostendunt.* The fact that mercury or quinine removes a given disease may be a test of that disease, possessing as much precision as any test in chemistry. In the remaining portion of his address, Sir James dwelt on the various persons with whom he had been brought into contact in his earlier career, and whose *Divine Manes*, if permitted to be cognisant of the affairs of this upper world, must have felt a thrill of satisfaction at the affectionate and discriminating eulogy with which their memories were honoured.

In his general Address on Surgery, Mr. Cadge resisted the temptation to discuss the various novelties which promise to adorn or to afflict modern surgery, as the case may be, but plunged at once into that topic upon which a Norwich surgeon is the supreme authority. He began by a most exhaustive account of the quantity of calculous disorders in the United Kingdom and their distribution, collecting his materials not merely from the published records of the Registrar-General, but from returns furnished to him by the surgeons of nearly all the hospitals in the kingdom. After due allowance made for causes of error, it is clear that stone is pre-eminently a local and endemic malady. In Scotland there are twice as many deaths in proportion to population as in England, and four times as many as in Ireland. In England, the unequal distribution of stone was illustrated by a coloured map of Mr. Haviland's. The deaths from stone for five years ending 1871 were highest in Norfolk, Huntingdonshire, Kent, and Sussex, and lowest in Cheshire, Cornwall, Cumberland, and Durham; in Norfolk they are one to 42,744 of the population, in Cheshire one to 425,520 (a proportion of ten to one). As to hospital experience, there are six hospitals in Norfolk, containing altogether 308 beds, into which 160 stone patients were admitted in five years, whilst only 280 such patients were admitted during the same period into the eight great London hospitals, containing 2866 beds. If the positive pole of calculous disorders is to be found at Norwich, the negative is at Taunton, where no case had been admitted into its hospital of 92 beds for five years, and only two in forty years.

When the distribution of stone cases as to age comes to be considered, some very striking differences are brought to light. Thus, says Mr. Cadge, in the midland counties a large majority of the cases are in young children, whilst in Aberdeenshire, where stone in the adult is common, there are but few cases in children. At Yarmouth, a town on the east coast, fifteen out of twenty-one stone patients were under ten years of age; whilst in Aberdeen, which is similarly situated, there were only three out of forty-seven stone patients under ten years of age.

Let us now come to Mr. Cadge's enumeration of the causes. What is there which is peculiar to the districts where stone prevails? What concurrence of causes affects Norfolk? Why the great preponderance of cases in children in Norfolk? Mr. Cadge duly weighed the influences which can be ascertained to exist—cold, hard water, beer-drinking, and hereditary tendency; but of all causes, he ascribed the frequency of calculus in Norfolk amongst children to the scarcity of milk. His remarks on this point are weighty, and well worth the attention of the moralist, the politician, the country clergyman, and landowner. It is well-known that in some districts the

cottagers cannot get milk. We have heard of farmers who give their milk to the pigs sooner than take the trouble to let their labourers have it. Hear what the Norfolk surgeon who, we undertake to say, is no Communist, says on this matter:—

"If ever true wisdom was combined with much false political economy, it was when John Stuart Mill maintained that they who live and labour on the soil have rights in the produce of the soil beyond that of mere wage. It would, indeed, be a glorious result of statecraft if, instead of the futile wrangling over the sale of fermented liquors which has wrecked one powerful Government, and by the disappointment of greedy expectants has gone far to sap the popularity of its successor,—if, I say, by some equitable enactment they who possess and they who occupy the land should be held responsible for the production in sufficient abundance for the wants of the poor of that which is now a costly luxury, but which Nature points out to be the chief, I may say the only, need of early childhood."

Noticing, by the way, Mr. Cadge's rehabilitation of ancient doctrine when he claimed for the kidney the privilege, not merely of separating, but of making urinary acid which it secretes, we must pass to Dr. Matthews Duncan's vigorous and characteristic address, which will probably be more fruitful in controversy than any of those which preceded it. In attempting to describe it, we are conscious of being like the man who hawked about a brick as a sample of a house. He insists on the necessity for strictly scientific investigation in the almost untrodden field of obstetric science properly so called (as distinguished from mere empirical midwifery). He demands an extension of that knowledge of mechanism, of which himself is the greatest master. He came to the actual mortality in childbirth and in childbed, because a knowledge of this is absolutely necessary as an element in our knowledge of "morbid puerperality" as a whole. He cast aside with unconcealed scorn the statements of practitioners who say that they have attended hundreds of patients in a long and large practice without a single death, and he equally repudiated the philanthropists whose wish is father to the thought that in a well-conducted practice there ought to be no deaths at all. He insists on it, on the contrary, that marriage and childbearing, and especially the first childbirth, exercise a most grave and pernicious influence on the death-rate of women in the prime of life. Not only, then, does the amount of childbearing mortality deserve to be known as a matter of more than scientific—of the highest and purest human interest, but, says Dr. Matthews Duncan, it has a great medical interest from its importance in deciding on the salubrity of hospitals, and especially of lying-in hospitals. Are these to be considered "noble institutions," the "lighthouses of practice," as Dr. Matthews Duncan does not hesitate to call them,—places whose reputation should be sacred, and which it is sacrilegious to accuse unless the proof of their guilt be most overwhelming? or are they blots on our civilisation, mere "pathological observatories,"—institutions testifying to the existence of vice and improvidence, which they foster, whilst they are death-traps to those who enter, and foci of infection to the parturient world outside? To answer this question it is necessary to know what the death-rate of childbirth really is.

Distrusting alike all general estimates and all existing statistical calculations as founded on imperfect data, Dr. Matthew Duncan set himself the task of a new and independent research; the first result of which was that in Edinburgh and Glasgow, in 1869 and 1870, about 52,000 births were registered, and within twenty-eight days one in 139 of the mothers had died. Now, considering that the births of dead children were not registered, that some mothers' deaths may have been registered elsewhere, having removed to some other residence within twenty-eight days, it is clear that one in 139 underrates the mortality, and that it is at least one in 120 within four weeks. Further researches compel the author to believe that of the women in this country delivered at or near the full time, not many short of one per 100 die before the puerperal state or its effects have passed by.

These figures provide food for serious reflection, and we believe that, however unpleasant, they are true. It is quite clear that it is not fair to take the statements of men who have practised amongst a select and wealthy circle, as equivalent to the results of practice amongst the poor and miserable and vicious. Moreover, to our knowledge, some practitioners, in certifying the death of a woman from some incidental cause after childbirth—say scarlatina,—suppress the "childbirth," and ascribe the death to scarlatina alone.

Having thus established the present rate of puerperal mortality, and so furnished material for a future estimate of the safety and danger of maternity hospitals, Dr. Matthews Duncan proceeds to inquire into its causes, which he arranges under the threefold head of "Childbirth" (as hæmorrhage), "Puerperal" (as metria), and "Accidental" (as accidental poisoning, for instance); and he then devotes his attention specially to the second, or metria, a right comprehension of which is essential to the knowledge of the causes and prevention of a most distressing source of death. He repudiates the practice of speaking of "puerperal fever" as if it were an "essential fever," or deserving to be ranked in the category of typhus or scarlatina; he objects to the name "surgical fever" as if it were a mere exaggeration of the thermic disturbance incidental to parturition and most great exertions of repair, and claims for it an identity with surgical pyæmia. He denies to it the character of a true epidemic in the sense in which cholera or scarlatina are epidemic. He belives it to be always present, like pneumonia; not varying in its ravages like cholera or scarlatina, yet capable of being accumulated or made endemic in any given hospital, and of sticking to a man as well as to a building. "The puerperal woman presents in her contused, lacerated, and inevitably wounded passages the most favourable nidus for the reception of morbific material; and the woman suffering from puerperal pyæmia in any of its forms presents this morbific material in its subtlest and most potent essence. A well-demonstrated communicability arises from this source."

Believing that maternity hospitals are useful both for humanity and science, Dr. Matthews Duncan protests against the slander to which they have been subjected on account of their alleged over-mortality; and having argued that puerperal pyæmia spreads by actual communication of morbific material, he lays down that obstetric practitioners ought not to undertake the functions of a nurse, and then, "if, avoiding a nurse's duties, a medical man cannot make himself medically clean in hands and person and dress, all kinds of medical practice as at present carried on are impossible with due regard to the safety of patients." And what is sauce for the goose (*i.e.*, the obstetrician) is sauce for the gander (*i.e.*, the physician and surgeon). If the one must not attend patients in order not to carry disease, neither must the other.

If the philanthropists and statisticians whom Dr. Matthews Duncan names are to blame, as we think they undoubtedly are, for insisting on the *natural* quality of childbirth as rendering skilled care unnecessary; if they are wrong in talking of the easy delivery of cottagers and savages, whereas all experience shows that persons unprovided with skilled care are more liable than others to every kind of accident, yet it must be admitted that they do a good service in upholding a high standard of safety and urging the necessity of reaching it. There is no such thing as a "statistical law"; what is so called is but an expression of fact under certain conditions. If one per cent. of women die in childbirth in 1873, less than one may die in 1875, provided, as Dr. Duncan says, "prophylaxis is still further carried out by attention to stop injurious communication between the sick and healthy, by disinfection, and by archi-

tectural arrangement." Thus, although Dr. Matthews Duncan defends the reputation of hospitals, and rebukes those who slander them, his practical suggestions are the same as those of the persons who presume to think lying-in hospitals a mistake, or who, with Dr. Beverley, have to describe and deplore the havoc which pyæmia has made of the healthfulness and usefulness of one of the most celebrated country hospitals.(a)

## THE NATURE AND ORIGIN OF TYPHOID FEVER, CONSIDERED MORE ESPECIALLY WITH REGARD TO ITS PREVENTION AND TREATMENT.(b)

### IV.

Objections have been raised in our columns to the theory which we are fain to adopt, on the ground that if we accept the specification of enteric fever we are not likely to take those steps or measures of precaution which experience has shown to be useful in at least a certain number of instances. This, if we remember aright, was the argument of our esteemed correspondent Dr. Strange, of Worcester, whose views are always worthy of consideration, even if we cannot agree finally to accept them. But this mode and style of argument is fallacious in more ways than one. It does not fairly meet certain of the series of cases on record; and as Dr. Strange writes confessedly to support one theory against another, the arguments advanced are likely to be looser than if they were followed out blindly as regards results.

However, the great point seems to us to be this—that the practical application of either theory does not in the slightest degree interfere with the working of the other; rather they serve to complement one another. On the one theory, the cause of enteric or typhoid fever is the result of change, putrefactive in kind, of animal matter, and especially of fæcal dejections. If these matters be promptly removed or washed away, no evil results follow; but if by any means the matters resulting from this putrefactive change, whether gaseous or otherwise, be introduced into the body, then mischief follows. On this theory the prompt removal of all such matters is the great thing to be aimed at; and when the working takes a practical shape, the water-supply and the drains are the first things to be looked to. But does the other theory stand in the way of this? By no means. The upholders of the other theory accept the proposition that the most common mode of acquiring typhoid is through the medium of drinking-water and air contaminated by sewer-gas; only they say that the matter which so propagates typhoid is something specific. Working on such a theory, then, should lead us first of all to examine into the water-supply of any suspected locality, and next into the possibility of the typhoid germs having been carried on the breath of foul gases. But it would go further: having found a likely source of contamination, it would seek to arrest its influence by destroying the germs at the earliest possible moment, and thereby rendering any contamination by dejections which contain them comparatively innocuous.

If, when called upon to examine a drinking-water, we find it containing a notable quantity of chlorides and nitrates, we look on that water with suspicion—not that these things are in themselves insalubrious, but because they indicate contamination with organic matters, which may at any moment appear in a different form. The tolerably well-known story of the old lady whose dunghcap had been disinfected with carbolic acid, with the result of making her well-water undrinkable, and who in consequence asked for a disinfectant which "did not smell so," illustrates this still better. Here, then, was undoubted passage of decaying animal matter into the drinking-water. But there was no typhoid fever, and no typhoid would have followed unless the specific germs had been introduced. The warning, however, came before this, and so there was time to obviate all such risk. Under either theory the same step exactly in a case of this kind would have been taken. Such, too, would be the case when we had to deal with untrapped water-closets, with sewers ventilating into cisterns or into bedrooms, or any of the hundred foul things we have to contend against in great communities. But the one system stops here; the other goes a step further. Typhoid, as we have seen, is not in the ordinary sense a contagious disease. Men do not catch typhoid as they do typhus; but the dejections of a typhoid patient are assuredly the main means of spreading the disorder—not alone the pea-soupy kind of dejections with which we are so well acquainted in the later stages of the disease, but also those more closely approaching in character the motions in ordinary diarrhœa, which are often for a considerable time the chief or only indication that the patient has been seized with what may be a fatal malady. This in a great measure accounts for the spread of the disorder, so hard to be understood, though undoubtedly, if the later dejections contain fewer of the typhoid germs, they contain more of the matters on which these seem best to thrive outside the body.

When, therefore, we have to deal with a case of typhoid, or an outbreak of the same fever, we should not content ourselves with looking after the water-supply and the drainage, but we ought to take every precaution to stay the spread of the fever by preventing the escape of its germs in a living state. To this end disinfection should be rigorously carried out from first to last, the dejections should be received in a vessel containing disinfecting fluid, and thoroughly mixed with the same before being got rid of. Every precaution should be taken to get rid of them effectually, and at a distance from any human dwelling if possible. Burying in the country is a good rule; in town, after disinfection, they should be dismissed with a copious supply of water. The use of a disinfectant of almost any kind is of greater importance than the choice of the kind; but probably Condy's fluid, carbolic acid, and chloralum are the best and simplest. Nor are they to be used for the dejections alone; if the patient has been touched, and there has been risk of soiling the fingers, they too, as well as all bed-clothing, should be promptly disinfected. Carried out in this way, disinfection is only a development of the theories generally upheld. In no way does it obviate the necessity for other precautions; and it is chiefly with a view to enforce this that we have written.

(a) We must defer our notice of Dr. Beverley's paper till next week.

(b) "Lectures on Fever," delivered in the Theatre of the Meath Hospital and County Dublin Infirmary, by William Stokes, M.D., D.C.L. Oxon., F.R.S., Regius Professor of Physic in the University of Dublin, Physician to the Queen in Ireland; edited by J. W. Moore, M.D., F.K.Q.C.P., Assistant-Physician to the Cork-street Fever Hospital, etc. London: Longmans. Pp. 439.

"A Treatise on the Continued Fevers of Great Britain," by Charles Murchison, M.D., LL.D., F.R.S., F.R.C.P., Physician and Lecturer on the Principles and Practice of Medicine, St. Thomas's Hospital, etc. Second edition. London: Longmans. Pp. 729.

"Typhoid Fever: its Nature, Mode of Spreading, and Prevention," by William Budd, M.D., F.R.S. London: Longmans. Pp. 193.

## THE WEEK.

### TOPICS OF THE DAY.

The profession at large will be glad to know that her Majesty has been graciously pleased to appoint Dr. C. J. B. Williams to be one of her Physicians Extraordinary. Dr. Williams's distinguished services in the advancement of medical science have so richly and so long merited such a recognition as this, that everyone will be pleased that it has been received; and we will not be so ungracious as to say "better late than never," for the number of her Majesty's Physicians Extraordinary must have some, and a quickly reached, limit. We have great satisfaction and pleasure in offering our hearty congratulations to Dr. Williams on his new appointment.

The Malta correspondent of a contemporary, writing on

the 11th inst., states:—"The plague being still in full sway at or near Benghazi and other places in the regency of Tripoli, the local government have, by order dated the 3rd inst., prohibited the landing of any passengers or goods from all ports in that regency, not even allowing any craft to come into port. A commission is sitting to inquire into the cause of the alarming increase in mortality of children, the death-rate in the last return being 47·87 per 1000—a very high percentage."

DISTRIBUTION OF THE METROPOLITAN "HOSPITAL SUNDAY FUND."

THE Committee of Distribution appointed to divide the sum realised by the late Hospital Sunday collection amongst the different hospitals and dispensaries, have just issued their report. From this it appears that the sum received at the Mansion House up to the present time is £29,500, a very similar amount to that obtained last year, when the gross total was just under £30,000. The Committee have now distributed £24,478 to hospitals, and £2961 to dispensaries, and no hospital or dispensary has this year been allowed to participate, unless it could submit a return of income and expenditure during the last three years. The Committee have also, upon the present occasion (in addition to calculating for themselves the items of expenditure and income of the several institutions supplied by the authorities), called upon the different secretaries to furnish similar statements in duplicate, so as to lessen the possibility of error in calculating the basis of distribution.

The following is a statement of some of the principal sums allotted to the different hospitals:—

| | £ | s. | d. |
|---|---|---|---|
| Charing-cross Hospital | 988 | 3 | 8 |
| Hospital for Consumption, Brompton | 457 | 10 | 0 |
| London Hospital | 3796 | 15 | 0 |
| University College Hospital | 1209 | 10 | 0 |
| Middlesex Hospital | 2287 | 10 | 0 |
| St. George's Hospital | 3020 | 0 | 0 |
| West London Hospital | 331 | 1 | 4 |
| Westminster Hospital | 1143 | 15 | 0 |
| Royal Free Hospital | 610 | 0 | 0 |
| Poplar Hospital | 419 | 7 | 6 |
| King's College Hospital | 1143 | 15 | 0 |
| St. Mary's Hospital | 1124 | 11 | 4 |
| City of London, Diseases of the Chest, Victoria-pk. | 873 | 12 | 0 |
| Royal Hospital for Diseases of the Chest, City-rd. | 136 | 10 | 0 |
| German Hospital, Dalston | 432 | 6 | 4 |
| Great Northern Hospital | 228 | 15 | 0 |
| East London Hospital for Children | 305 | 0 | 0 |
| Hospital for Sick Children, Great Ormond-street | 683 | 17 | 0 |
| North London Consumption Hospital | 281 | 18 | 5 |
| Queen Charlotte's Lying-in Hospital | 152 | 10 | 0 |
| Royal Orthopædic Hospital | 76 | 5 | 0 |
| Seamen's Hospital (late *Dreadnought*) | 610 | 0 | 0 |
| Samaritan Hospital | 152 | 10 | 0 |
| Royal London Ophthalmic | 114 | 7 | 6 |
| National Hospital for Paralysis and Epilepsy | 152 | 10 | 0 |
| Male Lock Hospital | 152 | 10 | 0 |
| Royal Sea Bathing Infirmary, Margate | 305 | 0 | 0 |

Fifty-five dispensaries and other kindred charities were nominated in the division of the sum of £2961 17s. 6d. set aside for their benefit; the largest awards were—Metropolitan Convalescent Institution, £457 10s.; Mrs. Gladstone's Convalescent Home, £190 12s. 5d.; Royal Kent Dispensary, £183; and the Western General Dispensary, £174 2s. 6d.

The distribution to the various institutions commenced last week at the Mansion House, and will be continued from day to day until completed.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

THE committee appointed at the last meeting of the members, held December 30, 1873, met on Friday, July 31, at 12, Hinde-street, Manchester-square. Present: Dr. B. Ward Richardson (in the chair), Drs. Ballard, Cholmeley, Christie, Cleveland, Paul, Sedgwick, Wynn Williams, and the hon. secretary. The treasurer reported that after payment of the working expenses, and the cost of the *Transactions*, there remained a balance in his hands of £60 14s. 1d., notwithstanding the fact that seventy-eight members had still omitted to pay their subscriptions. Dr. Sedgwick moved, and Dr. Cholmeley seconded—"That a sum of £27 be voted out of the surplus for the Mrs. Day Fund." Carried unanimously. Dr. Richardson moved, and Dr. Sedgwick seconded—"That a sum of ten guineas be applied out of the surplus to give a trifling recognition to Dr. Paul for his valuable services as treasurer during the existence of the Association." Carried unanimously. Dr. Wynn Williams moved, and Dr. Ballard seconded—"That the balance of the surplus be placed on deposit in the names of Drs. Richardson and Paul, to meet any future contingencies arising in connexion with the University Committee of the Association." Carried unanimously. It was also resolved that all subscriptions at present unpaid should be forwarded as received to Dr. Paul for the same purpose. The proceedings terminated with a vote of thanks to the chairman.

ARMY MEDICAL SERVICE.

THE following is a list of the gentlemen who competed successfully for appointments as surgeons in H.M.'s Army Medical Service at the examination held at the University of London on August 10:—

| | No of Marks. | | No of Marks. |
|---|---|---|---|
| 1. Harrison, C. E. | 2525 | 10. Smith, R. | 1615 |
| 2. Wellings, B. W. | 2250 | 11. Gardner, R. H. | 1555 |
| 3. Trevor, F. W. | 1830 | 12. Campbell, W. | 1545 |
| 4. McGann, J. | 1785 | 13. Gardner, H. G. | 1537 |
| 5. Bourke, G. D. | 1690 | 14. Carter, S. H. | 1525 |
| 6. Forrester, J. S. | 1680 | 15. Powell, J. | 1480 |
| 7. Mullane, J. | 1658 | 16. May, W. A. | 1422 |
| 8. Scott, H. | 1650 | 17. Hoysted, J. | 1395 |
| 9. Fogerty, H. A. | 1615 | | |

QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

THE quarterly return of the Registrar-General, ending June last, of the counties and districts of England, states that the mortality is declining, but at a slower pace than would be witnessed if there were intelligence and less hesitation in sanitary work. Yet the policy of improving the health of the people surpasses every other in importance. The report goes on to say:—

"The 123,990 deaths registered in the second or spring quarter of the year show an increase of 3864 on the average number in the corresponding period of the three years 1871-73. The number is greater than in the second quarter of any of the ten preceding years, with the exception of 1866. This excess, however, is scarcely more than may be considered due to increase of population; for it is found the mortality per 1000 persons living was at the annual rate of 21·0, against 21·3, 21·0, and 20·4 respectively in the spring quarters of the three years 1871-73, and a mean of 21·6 in those of the ten years 1864-73. In three only of the ten years was the rate lower than in the present year. The rate of mortality varied throughout the country from 17·1 in the South-Eastern, and 17·5 in the South-Midland, to 24·2 in the Northern, and 25·7 in the North-Western Registration Divisions. The number of deaths registered last quarter in London, and in the South and North-Midland Divisions, shows a slight decrease when compared with the average in the corresponding three months of the years 1871-73. The North-Western and Welsh Divisions, on the contrary, show an increase of more than 10 per cent. on the average number. Upwards of one-third of this increase is due to the greater prevalence of zymotic diseases (particularly measles and scarlatina), which have caused in these two divisions about 1100 more deaths than the average number in the second quarters of the three preceding years. Considering separately the deaths in the urban and rural districts of England, it is found that in the former they averaged an annual rate of 22·5 per 1000 living, and in the latter a rate of 19·1; each rate was rather higher than in the corresponding quarter of 1873, but lower than the average in the last ten years. The

123,990 deaths in England and Wales included 28,294, or 22·8 per cent., of infants under one year of age, and 29,888, or 24·1 per cent., of persons aged sixty and upwards. These proportions differ but slightly from those which have prevailed in recent corresponding quarters. Of the total deaths, 17,481 resulted from the seven principal zymotic diseases, equal to an annual death-rate of 3·0 per 1000."

### THE PLAGUE IN BARBARY.

Some time ago we reported the occurrence of an outbreak of disease in Barbary, which was reported to be the plague. It first made its appearance at Marsh, a village situate about twenty hours' journey from Benghazi. Singularly enough, an outbreak of the same disease occurred at Bagdad, identically with its appearance in Barbary; but at the former place the character of the complaint was not so fatal as at the latter. On June 17 last a medical commission under Dr. Laval was sent to the spot for the purpose of drawing up a report on this epidemic. Unfortunately, Dr. Laval himself fell a victim to the disease, of which he expired on the 27th of the same month. The result of the commission conclusively established that the outbreak of the malady was mainly due to the utter neglect of all sanitary precautions in the locality. The village of Marsh, where the disease first appeared, contains sixty-four dwellings with about three hundred inhabitants. The habitations of these people are nothing but rude excavations in the rock, dark and damp, and lie below a Turkish fortress. A burying-place built on a small eminence in the neighbourhood is used by the people of Marsh and the Arabs of the neighbouring tribes, who merely deposit the bodies in graves about a foot deep at most, and cover them with loose gravel and a little earth. Close to the cemetery are wells, usually dry in summer, but filled in winter by the winter rains, which flow down from the cemetery, and thus poison the water of the wells on which the villagers of Marsh depend principally for their supply. The commission ascertained that only those who drank of the well water were attacked by the plague, and that from June 6 to July 3 following there were nineteen deaths out of twenty-three attacks amongst the cases brought under their notice. They found, also, that diseased meat contributed to the development of the disease, as it is the practice in the district to eat the flesh of sheep afflicted with tumours; and those having recourse to such diet have been more susceptible to the malady than their neighbours. The labours of the commission furnish a fresh and striking proof that the neglect of sanitary precautions will have like results all over the world, and that outbreaks of disease will invariably occur wherever the law of cleanliness is openly set at defiance.

### GLASGOW ROYAL INFIRMARY.

The seventy-ninth annual report of the Glasgow Royal Infirmary for the year 1873 opens by stating that the legacies and donations received during the year amounted to £4498 2s. 11d., exclusive of a bequest consisting of railway stocks of the value of £3208. A site at Saltcoats had been purchased by the managers for the purposes of a fever convalescent home, but, in deference to a representation from upwards of 1200 of the residents in that locality, they abandoned the intention of erecting a home there, and as yet no suitable substitute has been found. The managers, at the request of several of the medical staff, have authorised them to deliver lectures upon special subjects. A committee of the managers was appointed to investigate the system of clinical teaching in the house. They received a large amount of evidence upon the subject, but ultimately, after hearing the report of the Committee, the managers deemed it inexpedient to make any changes in the system. Patients admitted during the year, 5377; remaining from former year, 454,—total, 5831; remaining December 31, 1873, 487; number cured, 3100; dismissed relieved, or from other grounds, 1643; died, 601.

### GERMAN WINES.

The last yearly report of the Cologne Chamber of Commerce refers to the adulteration (or rectification, as it is termed) of German wines. Last year, it appears, this adulteration was carried on to an alarming extent among nearly all the vineyard proprietors of the Moselle, and among many of the makers of the Palatinate. Unsugared natural wines are now scarcely to be met with in the Moselle district, and the addition of sugar goes hand in hand with liberal dilutions of water and the usual ingredients of spirits. The mixture is fermented with grape-husks; it is then styled wine. Last season 18,000 centners of common potato sugar were despatched from Coblentz up the Moselle, and considerable quantities were sent to the Upper Rhine, so that many cellars now contain more 1873 wine than the vineyards actually produced. Only an abundant crop can check this practice, and potato sugar should be subjected to the same tax as grape sugar.

### WORKING-MEN'S DWELLINGS.

The Act of Parliament passed in the last session to facilitate the erection of dwellings for working-men on land belonging to municipal corporations in England, is now in operation. It requires that, where a corporation determines to convert land belonging to them into sites for working-men's dwellings, they must obtain the approval of the Treasury to their making for that purpose grants for leases of 999 years, or for less terms; and then the provisions mentioned in the Act are to apply. The costs and expenses are to be paid out of the borough rates. The Act does not extend to Scotland or Ireland.

### THE ABSORPTION OF FAT AND THE HISTOLOGICAL STRUCTURE OF THE INTESTINAL VILLI.

Dr. von Thanhoffer has lately described the results of his investigations on the above subject in Pflüger's *Archiv*. He finds that the epithelial cells of the villi of the small intestine are surrounded with a ring-like border at the free end, which turns towards the lumen of the intestine, and this border consists of a thickening of the membrane of the cell which refracts light more strongly than the remainder of it. Underneath this border hair-like processes project out of the protoplasm of the cell, and in the frog the contact of bile sets these in rapid motion, and so fat is drawn into the cell. The processes retract when the cell is filled, and the cell-border then loses the striped appearance caused by the processes being seen through it, while the latter become visible below the border. It is probable that the movement of these processes depends on nervous influences. At any rate, Dr. Thanhoffer could in every epithelial cell make out a communication between its nucleus and the nervous system by means of a fine fibre. He also believes that each cell has a second hollow connective-tissue process, which opens into the interspaces of the villus, and which serves to remove the fat which the cell has absorbed. The interspaces of the villus are lined with epithelium also, and represent the commencement of the lymph-spaces.

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The most severe case of fracture seen during the year was in a coal-camel driver, who had been bitten by the animal a little below the left knee, through thick cotton-wadded trousers. The splintered tibia projected from the ugly gash for several inches, and the leg and foot below the wound were almost dead. The patient was brought from the Western Hills seven days after the accident. The leg having never been touched, its condition may be better imagined than described. Suffice it to say the patient was cold and pulseless, and died on the following day. Amputation in the circumstances was out of the question. The bull-camels, especially in Mongolia, are said to be very fierce at particular seasons. They can take hold of a man, pitch him into the air, or carry him off. Those in the city, engaged in the coal-carrying trade, are generally old and very docile.—*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

# FORTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

(*From our Special Correspondent.*)

I MUST take up the thread of my story of the meeting of the Association by noticing the *soirée* to which the members and their friends were invited by the President on Wednesday evening. Medical science, from its very nature, shuns the contact of mixed society, and there are few medical meetings proper which can be graced by the presence of ladies. But the evening gathering, which is now one of the most agreeable features of these meetings, not only affords the best opportunity for the members who wish to meet each other, but enables them likewise to see and be seen by the general society of the place. I need hardly say that St. Andrew's Hall is an admirable place for such a gathering; it was brilliantly lighted and well filled with the "beauty and fashion" of Norwich. There was a band placed where its music was gently softened by distance, and a tent where the guests might be warmed with coffee or cooled with ice according to their respective tastes. There were exhibitions of jewels, china, sketches, and photographs; and above all, the whole county poured out its art treasures, to vindicate the repute which Norfolk artists have fairly won for themselves. The landscapes by "Old Crome" were surrounded by admiring groups.

On Thursday morning the great event was the Address in Surgery by Mr. Cadge, which appeared in the *Medical Times and Gazette* of last week. Your readers will judge for themselves of the perfect construction of his paper, and how admirably its details are worked out. I was amused at his vindication of the Norfolk dumpling as a wholesome article of diet; the more especially as a local practitioner, loyal to his own county, whispered to me that no *Norfolk* dumpling ever caused indigestion—it was the nasty hard *Suffolk* things! For the reader may not be aware that the Norfolk dumpling is made of good flour, fermented with yeast as if to make bread, and then boiled—in fact, that it is, as Mr. Cadge says, bread boiled instead of baked. Why this should be unwholesome I can't tell, more especially as my Norfolk friend tells me that orthodox people eat it with fatty and saccharine matter in the highest state of empyreumatic aromatisation—that is, with a sauce composed of goose-grease and treacle. To complain of the dumpling with such accompaniments makes one think of a man who complained that the bread made his head ache after a tavern dinner. The Suffolk dumpling is a hard, unfermented mass of flour and water; but one does not see why this should be more indigestible than a "captain's" biscuit. Meanwhile we may ask, "Whence come these local specialities of diet?"

The various sections were well attended, especially the Public Health, where Mr. Beverley's paper "On Pyæmia" gave rise to a warm discussion; and the Obstetric, where the relative claims of vectis and forceps were treated of at considerable length. The venerable President has distinguished himself by advocating the vectis, in the use of which he has acquired great dexterity and repute. His views were warmly but becomingly supported by his brother—who once practised medicine, but is now in holy orders—and by Mr. Waddell, an old pupil and local practitioner. But the general sense of the section, as expressed by the President, Dr. Steele, was that the vectis was practically a less useful instrument, and that in such a case as childbirth it was better to use the best at once, more especially as dexterity with the forceps was a more common accomplishment than dexterity with the vectis; and, above all, that the idea of using it as a mere tractor, and not also in some degree as a lever, seems hardly consonant with the laws of mechanics. But for all this, in the able hands of practitioners who, like the President, have taken a fancy to the instrument, it may be made to do good service. One thing that rather grated upon one's ears was the statement incidentally made by one of the speakers, that chloroform is most rarely in use in country obstetric practice, and rarely unless two practitioners are present. But it must in justice be added that the denial of this great boon to suffering woman arises from the prejudices of the patients, and not from the want of will in the practitioner.

Thursday evening was devoted to a very excellent dinner, marred a little by the unexpected number of guests, but warmed up by a more than usually brilliant display of after-dinner oratory. On Friday morning the event was the delivery of Dr. Matthews Duncan's address, which requires more detailed notice than I can give it in this letter. Then came the reading, by Dr. Hughes Bennett, of the report of a committee appointed to investigate the antagonism of drugs; and after a good deal of formal business, the meeting of the Association was finished. In the afternoon there was a gathering at the Cathedral, where the peculiarities of the architecture were pointed out by Mr. Symonds, and a garden party in the Bishop's garden, at which H.R.H. the Duke of Connaught and all the notabilities of the place were present to pay their compliments to Mrs. Copeman. A little later there was a general move to Carrow House, the residence of Mr. Colman, M.P. for the borough. After a short drive through the suburbs, the residence was reached, and on passing through the reception-room, where Mr. and Mrs. Colman gave each guest a hearty welcome, all were struck by the fairy-like scene presented by a most picturesque garden arranged—by the happy conformation of the ground—in a series of concentric terraces. A capital band, organised by the workmen in Mr. Colman's manufactories adjoining, enlivened the scene. A sumptuous entertainment followed, at which between six and seven hundred guests were accommodated, in a series of school-rooms, which I believe are maintained by Mr. Colman. Everything went smoothly and well, betokening the kindly forethought and unsparing liberality of our entertainer, which will not easily be forgotten by his medical guests. And so a successful meeting came to its close.

But I must not dismiss the subject without noticing one or two points which deserve to be specially singled out. It could not fail to strike everyone who listened to Dr. Russell Reynolds's Address in Medicine that some of his observations on the misuse of statistics might be taken as an onslaught on the too zealous advocates of the "numerical method," and that when he said that if mercury failed to excite the biliary secretion, or opium caused diarrhœa in dogs, therefore we could not safely argue that blue pill could do no good in some of the bilious headaches of men, nor opium check some forms of diarrhœa,—he might be considered as condemning the inferences drawn from a well-known series of experiments; a condemnation which, by-the-bye, the audience emphatically joined in. It was with much interest, then, that Dr. Hughes Bennett, under whose superintendence those experiments had been made, was seen to rise to move the thanks of the meeting to Dr. Reynolds for his address; and it was clear that Dr. Hughes Bennett seemed to think himself put on his defence, for, instead of gracefully ignoring any difference of opinion, as he might have done, he began to criticise Dr. Reynolds for speaking of the "mystery" of life, on the plea that it was no greater mystery than any other of the marvellous combinations of force with which we are surrounded. He also began a defence of the experiments on dogs with mercury, which the meeting heard with some impatience. But when on the Friday this most clear, able, and experienced teacher read the account of the conclusions of the Committee on the Antagonism of Drugs, and when he announced the prospect of his retirement through bad health from the more active duties of the profession, the

sympathy of the meeting was decidedly with him. It is difficult to think of any department of pathology in which Hughes Bennett's name is not quoted,—inflammation, cancer, tubercle, pneumonia, phthisis. There were few present who, at some time of their professional life, must not have derived instruction from the clear and trenchant views of the more advanced departments of medical science, and the clear rules of diagnosis to be found in his works; and not one who did not join in the devout wish that a life so honourably distinguished might be renovated by warmth and rest, and that he might be spared for many years to watch the progress and guide the labours of his successors.

Sir John Rose Cormack was another professional veteran who was warmly welcomed. His paper on Resection of the Shoulder-joint will be quoted in times to come, not purely as an example of surgery, but as a contribution to history. When he sketched the frantic wounded Communist, yelling with rage, and thoroughly frenzied with drink, and, above all, the excitement arising from the possession of power, Sir John well illustrated the insanity which bad theories inflicted on the Parisian incendiaries.

## THE SURGICAL SECTION.

After Sir James Paget had opened the section by the address which we publish on another page, the reading of papers proceeded as usual. A very valuable paper which we hope to publish next week, was brought forward by Dr. Beverley, of Norwich, on the subject of pyæmia in the hospital of the town. The subject of recovery from chloroform narcosis was then introduced by Sir John Rose Cormack, of Paris, and Dr. Marion Sims, of New York, and freely discussed. The following is an abstract of the papers and of a portion of the subsequent debate:—

### Recovery from Apparent Death induced by the Inhalation of Chloroform.

*By Sir John Rose Cormack, M.D., of Paris.*

The case here given was described to show the therapeutic value of inversion of the body when there is syncope from cerebral anæmia, and to aid in the elucidation of chronic chloroform poisoning.

The subject of this remarkable case was J. A., a lady's maid, an Englishwoman, aged 27. She was minutely described in the opening of the paper. The gist of the details we may sum up by saying that she was hysterical, weak, and anæmic. She was admitted, under Sir John Cormack's care, to the Hertford British Hospital of Paris, on January 30, 1874, to be treated for chronic disease of the hip-joint and necrosis of the femur. On May 25, Sir John resolved that she should be chloroformed, so that, painlessly to the patient, he might make a thorough exploration, and remove a loose piece of bone, which could be felt by the probe. At half-past ten on that day all was ready for the operation. The patient was placed on her left side, recumbent, and with the face quite free. The day was hot, but a light breeze was playing. The patient lay before, and within three feet of, a large casement window. Mr. Vines administered the chloroform. This he did by placing near the patient's mouth a napkin folded as a hollow cone, and having within it a small quantity of chloroform. There was a free space of some inches between the towel and the lips of the patient. In two minutes she had passed into a calm sleep, without having spoken a word, moved a limb, or twitched a feature. Pinching the skin of the forearm caused only a very slight movement. The towel was now so far removed from the mouth that the inhaled chloroform vapour must have been so diluted by atmospheric air as to augment very slightly the anæsthesia. For two minutes more Sir John kept his hand on the pulse. She was then profoundly chloroformed. The breathing was natural; the pulse, though slow, was quite regular, and of fair strength. At the end of four minutes from the commencement of the inhalation of chloroform, his colleague, Dr. Herbert, joined Sir John. Just as he entered Sir John made a free incision, saying, almost simultaneously to Dr. Herbert, that the patient was too much under the influence of the chloroform. Glancing at her and feeling her pulse, Dr. Herbert replied—"Yes, but the pulse and breathing are all right." No more chloroform was given; and whilst Sir John proceeded with the operation to its completion, the window was thrown open; and Dr. Herbert tried to bring back the patient to consciousness by flapping her face and chest with a wet towel. About twenty minutes from the time at which the inhalation was commenced, Dr. Herbert announced an alarming irregularity and sinking of the pulse. At this crisis, and throughout the whole duration of the unconsciousness—except once, for a few minutes—the lips were red and the face had neither a ghastly nor a pale aspect. The pulse became more and more irregular and feeble; death seemed imminent. The body of the patient was inverted; the pulse immediately improved. The patient was maintained in the inverted position for four or five minutes; the pulse had then so much improved that danger seemed to be past. Accordingly the woman was replaced in the horizontal position, when a variety of auxiliary restorative measures were pursued. The patient was at a later stage twice inverted for a few minutes with remarkable benefit to the pulse. Many means were used when the patient was horizontal. There was partial consciousness. All seemed to be going on well, when the patient relapsed into unconsciousness, the pulse fluttered and fell, and the breathing became very weak, very slow, and occasionally jerking. At the same time, and for the first time, the lips and cheeks became deadly pale, and for a minute or two life seemed extinct, so long an interval occurred between the respirations. Artificial respiration was employed. Under this treatment the pulse, which had become imperceptible, returned to a certain extent, failing, however, when the artificial respiration was relinquished for a minute. At this crisis, the danger seemed even more urgent than it had yet been, the respiratory function being much more profoundly compromised. Inversion was again resorted to, and again with the happiest results. A little later, vomiting came on, which seemed to bring back the patient to a certain degree of consciousness. This was the state of matters at half-past one o'clock. Between that time and half-past three she was in an improving but still very dangerous state. The relapses were frequent, but they were, with one exception, not alarming. At four o'clock she took some beef-tea. She swallowed easily. She was then in a state of semi-consciousness, in which condition she still remained on the following day. Its intensity gradually diminished; but three days and three nights had elapsed before it had entirely passed away. At the end of that time the patient had resumed her former ways in respect of food, sleep, and intelligence. It is essential to state, that besides artificial respiration and inversion, many auxiliary means of resuscitation were employed, all of which must have contributed to the happy issue. In this abstract our object has been to present as fairly as possible the beneficial results of the inversion practice. The *chronic* and *cataleptiform* characters of this case of poisoning with chloroform vapour were, in the author's opinion, its most remarkable features. Several cases of a somewhat similar character were mentioned, showing that chloroform inhalation may prove fatal after an interval of many days. The author was convinced that inversion had proved useful in his case as well as in others previously described. He held, however, that all the various restorative measures which had been employed in his case contributed to recovery. He said that numerous cases are recorded in which, by means of keeping the patients warm and in the horizontal position, they have been saved by artificial respiration. The author did not recommend that, in cases of cerebral anæmia from chloroform poisoning, the inverted was preferable to the horizontal position; he only recommended the former to be used—as in the case he had described—for short intervals, and in conjunction with the persevering use of artificial breathing and the other common measures of recovery and precaution.

### Chloroform Narcosis.

*By Dr. J. Marion Sims.*

Nélaton, of Paris, long taught that death from chloroform is due to syncope or cerebral anæmia. A case which occurred in Dr. Sims's practice in Paris was a strong argument in support of this theory—a case in which Nélaton by his method unquestionably saved the life of the patient. This was a lady on whom the radical cure for vesico-vaginal fistula was being performed by Dr. Sims. The operation was almost completed, when the pulse and the breath suddenly failed. Immediately, at Nélaton's order, the body was inverted, the head hanging down while the heels were raised high in the air; the jaws were held open, the tongue was hooked out, and

artificial respiration was commenced. It was fifteen or twenty minutes before there was any sign of returning life. When the pulse and respiration were well re-established, the patient was restored to the horizontal position, but she immediately fainted a second time. The same measures were again adopted, and again, after about the same interval, with success; but a third time the patient fainted on being laid flat on the table. A third time the body was inverted, and again the patient recovered, this time permanently. This case goes as far, in Dr. Sims's opinion, to establish a principle of treatment as any one case possibly can. If the recovery had been complete and perfect with the first effort at reversing the body, there might have been a doubt whether the vertical position was really the cause of resuscitation; but, when the horizontal position was again and again followed by a cessation of all evidence of life, and when life was again and again re-established by a position that favoured only the gravitation of the blood (poisoned as it was) to the brain, the inference is very clear that death in such cases is due to syncope or cerebral anæmia. Exhaust the brain of blood in any way, and death follows speedily. Fill it with blood again, and life returns. Dr. Sims related a second case of much the same character, and equally successful, from his own practice. Other cases have been recorded by American physicians. These facts, said Dr. Sims, fully explain themselves. In America the accoucheurs often use chloroform, and the surgeons mostly use ether. Probably there has not as yet been a single death from chloroform given during labour, while deaths from it in general surgery occur constantly, and for unimportant operations. There must be a reason for this. He believed that it can be explained only on the theory that death from chloroform is, as a rule, due to syncope or cerebral anæmia. Now, we know that in active labour there can be no cerebral anæmia, for every pain throws the blood violently to the head, producing fulness and congestion of the bloodvessels, thereby counteracting the tendency of the chloroform to produce a contrary condition. It may be said that the recumbent position has some influence in determining the safety of chloroform in labour; and so it has, but it gives no immunity under other circumstances. Chloroform, given intermittingly, as in labour, is thought to be less dangerous; but patients in labour are often kept for hours under its influence with safety, and occasionally it is necessary to produce complete and profound narcosis in some obstetrical operations; and yet, as already said, no woman has died in labour from the effects of this anæsthetic. In puerperal convulsions, where the brain is believed to be overcharged with blood—and that, too, when the blood is known to be poisoned with urea—we formerly bled the patient, and we do so now sometimes, but our chief remedy is chloroform, which acts by arresting spasmodic movements, and by producing that very state of cerebral anæmia so necessary to a successful result. Whether puerperal convulsions are less frequent in labours under chloroform than in those without it, Dr. Sims did not know. Obstetrics might take a lesson from Nélaton's method of resuscitation, by adopting it in cases of threatened death from post-partum hæmorrhage. Let us not be satisfied with simply placing the head low; but let us, in addition to the means usually adopted, invert the body, and throw what little blood there is left in it wholly to the brain. Dr. Sims has never seen a death from uterine hæmorrhage; but from recollections of the few alarming cases he has witnessed, he now felt sure that recovery might have been hastened if he had known of and adopted Nélaton's method of inversion. Whether death from chloroform is due to cerebral anæmia or not, it is at least safe to adopt Nélaton's method in all cases of supposed or threatened danger; but Dr. Sims thought the safest plan is to relinquish the use of chloroform altogether, except in obstetrics. The frequent cases of death from the use of chloroform in surgical operations that have occurred, even of late, should warn us to give up this dangerous agent, if we can find another that is as efficient, and, at the same time, free from danger. Ether fulfils the indications to a remarkable degree; but, while it is safe, it is unfortunately unpleasant to the physician and bystanders, as well as to the patient. He who will give us an anæsthetic as pleasant to take as chloroform and as safe as ether, will confer the greatest boon upon science and humanity.

Mr. Clover exhibited and described his new apparatus for the administration—first of nitrous oxide, and then of ether or chloroform.

Sir John Cormack replied that it was much to be regretted that the pressure upon the sections was so enormously in excess of the limited fragments of time allotted to their work. The papers on chloroform which had just been read afforded a most admirable opportunity of eliciting the views of many present who could speak with authority on momentous practical points which had been mooted by the respective authors. As the remarks of several speakers were not explicitly applied to one or other of the two papers read in which inversion was recommended, he hardly knew whether he was called upon or not to say that he attached less importance to inversion than Dr. Marion Sims, and that he thought it would be a dangerous mistake unduly to exalt its efficacy. In cerebral anæmia from any cause, the patient ought, as a rule, to be placed in the horizontal position with the head low and the feet raised about a foot. The cases in which inversion is called for are rare—quite exceptional. It ought, moreover, to be performed most carefully and watchfully—tentatively, in fact. Too long-continued inversion might prove very dangerous by causing distension of the right side of the heart, which will in turn cause a cessation of its contractions—which causes death in a certain class of cases of fatal chloroform inhalation. This and other poisons given in large doses often produce an almost instantaneous paralysis of the right side of the heart—the auricle goes on receiving blood and is unable to get rid of it, so that by distension the paralysis (which in some cases would be only momentary) is rendered permanent; the result is probably that instant or very rapid death to which the French apply the term *sideration*—death by star influence. This subject of quick death from sudden distension of the right side of the heart, he (Sir John) had investigated experimentally many years ago, and he still held to the views he had then published. Touching Mr. Clover's apparatus, it was unquestionably a most admirable invention, but its cost and complexity must prove fatal to its introduction into general use. It will be a great source of safety when the administrator is a steady, watchful man, familiar with the system and the instrument. On the other hand, it is apparent at a glance that negligence or hardihood might readily cause an untrained or self-sufficient administrator to turn the valves too much, too little, or not at all. The induction of complete anæsthesia for surgical operations can never be divested of all danger; but (in theory at least) by Mr. Clover's method the danger may, it would appear, be reduced to its minimum. Slow administration, using the conically arranged towel, and letting plenty of air be breathed, generally secure immunity from danger; and, under all circumstances, such precautions and appliances can be commanded. When cost and complexity are not objections, and when Mr. Clover's apparatus and a person who knows well its use are at hand, it ought to be employed. The remark which was made by one of the members is of great importance—viz., that a moderate stimulant, a dose of wine or brandy, given shortly before the commencement of inhalation, greatly tends to prevent the anæsthetic vapour from producing a too depressing influence on the heart.

## THE MEDICAL SECTION

Was opened by the President, Dr. Eade, of Norwich, who delivered an interesting address, in which he referred to some of the recent advances in medicine, to the character of the papers promised, and to some of the disorders most prevalent in Norfolk, especially the calculous diatheses.

Among the many valuable papers read and discussed in the Medicine Section were the following:—(1) "Some Observations on the Mechanism of Cough," by Dr. Arthur Ransome, with exhibition of his instrument for taking tracings of the movements of the chest in respiration; (2) "The Systemic Indications of Chronic Bright's Disease," by Dr. J. Milner Fothergill; (3) Dr. Magnan, of Paris, and Mierzijewski, of St. Petersburg, "On the Anatomical Lesions in General Paralysis," especially interesting on account of the microscopic preparations which were shown at the same time; (4) Dr. Peter, of Paris, "On Accidents that may occur to Pregnant Women suffering from Disease of the Heart." The total amount of the blood increases in, and with the advance of, pregnancy; and at the same time the left ventricle undergoes a physiological hypertrophy. Now, if the mitral valve is diseased, the lungs are doubly congested, and the enlarged ventricle increases the amount of blood regurgitated. Hence pulmonary congestion, bronchitis, pneumonia, and pleurisy are all to be dreaded in pregnancy. Conversely Dr. Peter points out that if a pregnant woman suffers from pulmonary disorders her heart ought to be

most carefully auscultated. As for treatment, premature delivery may be necessary, and pregnancy should be avoided in the future. (5) Dr. Gowers, of London, "On Cases of Convulsions from Organic Brain Disease"; (6) Dr. Dowse, "On a New Method of Treating Acute Rheumatism"; (7) Sir John Rose Cormack, M.D., "On Diphtheritic Paralysis," and Mr. Prangley, of Aylsham, "On Diphtheria"; and (8) Dr. Ferrier, of London, "On the Localisation of Function in the Brain, with special reference to Aphasia. We hope to be able to publish short abstracts of some of the most interesting of these papers at another time.

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*The Annual Museum*, which is always a principal feature of the meeting, was probably more attractive than usual this year, and certainly was very well patronised. The collection was displayed in one of the large assembly rooms, which it fairly filled: it comprised a most judicious selection of pathological specimens (real or represented), instruments of every kind, drugs and chemicals, and other objects of interest. The classification and arrangement were excellent, and the effect of the whole was really very pleasing.

In a hasty glance at the principal objects of interest in the Museum, the place of honour must of course be given to the great collection of urinary calculi, and especially to the magnificent cabinets containing 1200 specimens from the Norfolk and Norwich Hospital, each stone with its complete history. From the same hospital was sent a very carefully selected series of morbid anatomy of various organs. But it would be impossible to describe these in detail, or the many specimens in the same class from all parts of the country. A collection of photographs and drawings was displayed upon the walls, and afforded a welcome relief to the visitors' eyes tired with the scientific severity around. It was very pleasant also to come across the collection of ancient instruments associated with the names of Dupuytren, Hunter, Le Cat, and other worthies of a former generation. In marked contrast with these was the exhibition of new instruments by some of our principal makers, which occupied a great part of the room. Here we cannot do more than refer by name to a few of the most striking novelties, such as Messrs. Arnold's "Simplex" enema; instrument for slitting the canaliculus; rack-and-pinion aspirator; and syphon stomach-pump; Messrs. Blaise and Co.'s Pollock's écraseur; and the Rattray's dislocation apparatus, improved hypodermic syringe, and Clover's double cautery lamp of Messrs. Coxeter. Messrs. Evans and Wormull exhibited an excellent new miniature hypodermic syringe with needle of platinum and iridium; and the electric bullet-forceps of Dr. Wilde.

Amongst other "exhibits" in the Museum of the Association we need not notice articles which belonged to well-known London firms—such as the beef-tea and turtle and other preserved delicacies of the Messrs. Brand; the koumiss or fermented milk, which seems rising in repute as a nutritive stimulant; an abundance of electrical and galvanic instruments by Evans and Lescher; Stöhrer's model, exhibited by Pratt; and a very handy apparatus by Mayer and Meltzer; a collection of coated pills by Richardson and Co., of Leicester; and a great variety of hypodermic syringes and of ophthalmoscopes, ingenious and portable. Walker's biscuits were often tasted. The local exhibitors must not be omitted,—as Sutton, famous for volumetric analysis, who exhibited a large collection of apparatus; and Caley, who showed a large variety of aërated waters, containing bismuth, ammonia, magnesia, quinine, chlorate of potash, and other drugs curious and useful.

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Intravascular murmurs are sometimes heard in the arteries and sometimes in the veins. They are chiefly systolic, but sometimes diastolic, in rhythm. In the arteries these murmurs may be strictly localised, or may be audible over every part of the arterial system. In the veins, as a rule, they are audible everywhere, provided certain conditions are complied with, though they are permanently present in certain parts of the body where these conditions naturally exist. Such intravascular murmurs are of the most various significance, and can only be most briefly referred to now. Sometimes they signify serious lesion of the vessels themselves; at others, nothing worse than some slight deformity of the chest, the result of rickets; and at still other times, only an alteration in the condition of the blood itself, which may arise from the most various causes.—"*On the Diagnosis of Disease of the Heart," by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874).

# RESEARCHES ON THE BRAIN.(a)

## By Dr. EDWARD HITZIG.

### No. III.

The second part of Dr. Hitzig's third paper deals with the general and special differences between his results and those of Professor Ferrier, as detailed in the *West Riding Reports* for 1873, vol. iii. It is only fair to state that Hitzig's own experiments, on which he founds his comparison with Professor Ferrier's, are on a much more extensive scale than those of the latter, with which they are compared, as they have been in progress from 1872 up to the early part of the present year. This part of the paper is therefore interesting, apart from all controversial discussion, as representing Hitzig's latest views on the localisation of the functions of the brain, so far as the surface of the hemispheres is concerned. The cerebellum, corpus striatum, optic thalamus, and corpora quadrigemina, on the other hand, receive no mention. There are two chief general differences between the results of Hitzig's experiments and those of Dr. Ferrier. In the first place, in addition to the parietal region of the hemispheres to which Hitzig finds electrical excitability almost exclusively confined, Ferrier finds a considerable part of the frontal portion, especially the gyri (*a*, *b*, *c*, *d*), as well as the gyri (*m*, *n*, *o*) of the occipital (*Hirterhoupts*), and a portion of the temporal region, irritable.

Secondly, Ferrier makes several centres, which are occasionally far distant from one another, serve for the same group of muscles; and, on the other hand, he excites different groups of muscles from one and the same spot or centre; whereas Hitzig and Fritsch only accept as centres those spots from which localised contractions of muscles can be produced by very weak currents, and thus they only find one centre for each group of muscles.

Hitzig points out a third difference between his and Ferrier's results—viz., that they do not always agree among themselves. Thus, at the spot where the centre for the dog's tail is placed, the cat's brain is unexcitable; where stimulation makes the cat knit its brows and move its ear, the dog's brain does not react, and Dr. Ferrier describes other differences of a similar nature.

"When we consider," says Hitzig, "that the principal difference between the dog's and cat's brain lies in the smaller size of the latter, and when Professor Ferrier describes such marked functional distinctions between the two, it ought to excite the most profound distrust of the effects he gets by stimulating the brain."—(S. 74.)

Hitzig has experimentally tested Ferrier's statements one by one, as far as the cerebrum of the dog, cat, and guinea-pig is concerned, in the most thorough manner, and a section of considerable length is devoted to a comparison of his and Ferrier's results. It is extremely difficult to give a clear idea of this part of the paper without occupying more space than we could possibly assign to the subject, and without the aid of explanatory diagrams. Those therefore who wish for details must refer to the work itself.

With regard to the dog's brain, Hitzig still insists on the existence of an irritable and an unirritable zone on its surface. The latter corresponds to those convolutions in the frontal region on which Ferrier's centres 21, 22, 23, 4, and 15 are placed, and in the occipital region to those marked with the centres 9, 10, 11, 17, 12, and 16. These parts never react to weak currents with muscular contractions (s. 84), and they do not invariably react to strong currents. With the latter the reaction becomes more intense, the nearer the electrodes are placed to the parts which Hitzig and Fritsch described as the irritable zone; and the further they are moved away from it the weaker is the reaction, so that at length either it ceases entirely, or only occurs when currents are used of enormous intensity.

Hitzig refers Ferrier's results principally to the use of very

(a) "Untersuchungen über das Gehirn Abhandlungen physiologischen und pathologischen Inhalts." Von Dr. Eduard Hitzig, Privatdocent an der Universität, Berlin. Berlin: Hirschwald. 1874.
"Researches on the Brain, comprising Physiological and Pathological Treatises." By Dr. Edward Hitzig, *Privatdocent* in the University of Berlin. Berlin: Hirschwald. 1874.

strong currents, so that the deeper parts of the brain have been reached. He thinks that some of them are due to the conduction of the currents to muscles and nerves by other paths than through the brain—*e.g.*, by cerebro-spinal fluid lying between the brain and its membranes, or the parts outside the skull. In the frontal region some of the effects are probably due to the first and second branches of the fifth nerve being directly affected by the strong currents. The supra-orbital branch especially, lies close beneath the electrodes.

There is a general agreement between Hitzig's and Ferrier's results as far as the irritable zone of the dog's brain is concerned, except that Ferrier's results are more complicated. For example, Ferrier gets simultaneously closure of the eye, movements of both eyes, dilatation of the pupil, and turning of the head to the opposite side, by irritating his point (5) which corresponds to Hitzig's centre for the facial muscles; while he also gets similar movements from another point (3) which answers to Hitzig's centre for the neck-muscles. Hitzig considers these anomalies easily explained by the enormous strength of the currents employed.

Hitzig himself, however, is obliged to confess that the position of the spot which he and Fritsch first described as "the centre for the facial muscles," and which corresponds, as a rule, to Dr. Ferrier's point (5), is variable in different experiments, and sometimes corresponds(b) to Dr. Ferrier's point (19). The centre for the muscles of the ears is also somewhat variable in position, and there are several spots which sometimes react to very weak currents, whereas in other experiments very much stronger currents produce no effect on them. This phenomenon of inconstant contraction complicates matters considerably. Hitzig is inclined to ascribe some of the cases in which it occurs to the difference of force required by certain groups of muscles to overcome the resistance or the weight of the part moved; so that, *e.g.*, the movement of the jaw requires a stronger current than that of the orbicularis palpebrarum, and this, as he expresses it, "also in other parts of the body, the current would have to be proportionally stronger the heavier the weight, or the resistance to be overcome, happened to be."

Inconstant movements with weak currents are more difficult to explain, and Hitzig is inclined to refer them to variations in the conducting media (*Varianten der Leitung*), rather than to variations in the animal's organisation, since the first "are known to exist, while the second are of purely hypothetical nature." The presence of a rather larger bloodvessel than usual on its way from the surface towards deeper parts, may make the passage of a weak current easier than it would otherwise be; and if a motor tract came within its area, it would react in an exceptional manner. Hitzig considers the mode and locality of production of masticating movements of the jaw (*Frephewegungen*) to be at present insufficiently explained, and to require further investigation, while the movements of the ears, and other exceptional effects of stimulation, are probably to be referred to anomalies in the conducting media.

Hitzig gives Dr. Ferrier full credit for the discovery that from his point (19) movements for closing the jaw are produced, and retraction of the corners of the mouth from a point in the anterior part of gyrus *g* (s. 93). Ferrier has also independently observed bilateral contraction of the internal rectus muscles on stimulation of Hitzig's centre for the neck-muscles, and bilateral rotation of the eyes downwards and outwards from Hitzig's centre for the muscles of the eye. He has also shown that electrisation of the anterior basal portion of the brain produces dilatation of the nostrils. The results which Dr. Ferrier has obtained on the central parts (parietal region) of the convexity of the brain, Hitzig considers to be only a repetition of his own experiments in conjunction with Fritsch.

With regard to the cat's brain, Hitzig finds that the unexcitable portion (*unerregbare Zone*) corresponds very closely with the same region on the dog's brain, and is even more accurately defined than in the latter, because of the more regular arrangement of the sulci. He believes that the use of too strong currents has here also caused the differences between Dr. Ferrier's researches and his own. In some experiments the results may be due to the conveyance of the current to the envelopes of the brain, and so to external muscles, by means of cerebro-spinal fluid. In others, Hitzig considers them to be purely reflex, as, for example, where the stimulation of the base of the frontal lobe with a strong current caused jerking back of the animal's head and movements of the hinder legs, and of the tail when the current was made still stronger.

Hitzig agrees with Ferrier in the main as to the "irritable zone" in the cat's brain, except that the latter has not isolated the centre for the hinder extremity, which lies just behind the sulcus cruciatus, as it does also in the dog, and that the centre for the muscles which move and protect the eyes does not lie in Ferrier's two points (7 and 8), but exactly between them. He has also, just as in the dog, obtained complex movements of several groups of muscles by electrisation of his centres; and lastly he gets analogous effects by stimulating several different points. These results are not difficult to understand, since even stronger currents have been used in examining the cat's brain than in the experiments on the dog's. Ferrier has, however, independently discovered that irritation of the anterior basal portions of the brain in the cat gives rise to opening of the jaw and movements of the tongue (points 17, 18, 20); and Hitzig gives him the fullest credit for this.

Hitzig's general conclusion is that "there is the greatest functional agreement between the similarly situated regions of the cat's and dog's brains if the currents used be those which produce the minimum of muscular contraction (*Zuckungs minimum*)."

With respect to the guineapig, Hitzig confines his remarks to an observation made by Dr. Ferrier in one of his experiments. The latter found (*l. c.*, p. 34) that after exposing the left half of the brain of one of these animals under chloroform, and allowing it to wake, its body was so much bent towards the right that its tail and head met. Ferrier's explanation of this phenomenon is, "that the irritation of the hemisphere due to its exposure to the air was transmitted to the muscles of the opposite side through the corpus striatum, and produced tetanic convulsions and pleurothotonus." The results of eight experiments of his own, which are fully reported, and other considerations for which we must refer readers to the original, lead Hitzig to the conclusion that Ferrier's view is erroneous, and that the curving of the body to the right was not due to *irritation* of the brain-surface, but to a *paralytic* condition, arising from the injuries which the brain had sustained in opening the skull, since guineapigs are remarkably sensitive to the least shock to their nervous system. He further shows that convulsions (*Krämpfe*) can ensue in them from coarse lesions of the brain, without their being always or pre-eminently unilateral, or capable of being referred to injury of any definite region of the cerebrum.

The last section of the paper deals with Dr. Ferrier's general conclusions. Hitzig condemns the way in which that writer systematically puts the results of individual experiments together, so as to use them afterwards to draw conclusions from; also the way in which, when the results of two similar experiments are not exactly identical, he accepts the more definite of the two results without further investigation, and only says "the present results are more definite," or "the first animal was too much exhausted." Hitzig also shows that, in comparing the brains of the dog and cat, Ferrier has accepted points or centres as identical, which anatomically are situated on convolutions or parts of the brain which do not correspond in the two animals—for example, points in front of and behind the Sylvian fissure. For this reason Ferrier has drawn some remarkable conclusions as to the differentiation of the centres for certain habits in the two species. The paper winds up with some remarks on Dr. Ferrier's theory of aphasia, which Hitzig considers to be based on erroneous premises. He also points out that the after-movements (*Nachbewegungen*) which the former believes to be of the nature of chorea, lack that voluntary character which marks true choreic movements.

The last two pages of the third paper contain some rather severe strictures on Professor Ferrier's researches as a whole, and on the way in which they have been brought into public notice in this country. We shall not reproduce them here, but leave them to the consideration of those whom they most concern. It is only necessary to add that though he writes with the tone of a deeply injured man, Dr. Hitzig never forgets himself, nor indulges in language which diminishes our respect for the philosophical spirit which characterises the rest of his contributions to science.

(b) The muscles innervated from this centre are the orbicularis palpebrarum, and mostly, too, the muscles which elevate the cheek and the angle of the mouth towards the eye.

# FROM ABROAD.

### Mortality Returns of the Paris Hospitals.

The report for the quarter ending in June, made by Dr. Besnier to the Paris Hospital Medical Society, is of a very favourable character, the affections which have been at all prevalent being chiefly those liable to thermometrical influences, such as pneumonia, pleurisy, pertussis, and rheumatism. Although the mean temperature of the quarter has been very much the same as in some preceding years, yet the thermometrical variations between the maximum and minimum of the same day, or of successive days, have been much more considerable than usual. The air exhibited a remarkable dryness, and the quantity of rain which fell has been much less considerable than at the same period of preceding years. The total number of deaths in the various civil hospitals and hospices for this second quarter of the year were 3081 in 1867, 3298 in 1868, 3350 in 1869, 4402 in 1870, 2721 in 1872, 2847 in 1873, and 2813 in 1874. *Pneumonia* and *pleurisy* continued prevalent during the quarter, although the deaths from the latter, (thirty-seven) exhibited a diminution as compared with those of the preceding year. The epidemic of *croup* and *diphtheria* furnished eighty fatal cases during the quarter, but since the warm weather set in the admissions from this cause have almost ceased. While *typhoid fever* exhibited itself at Lyons in so formidable a form, there has been greater immunity from that disease in Paris than has ever before been known, only twenty-two deaths having taken place from this disease during the quarter. *Intermittent fevers*, and a "paludial" complication of other diseases calling for the employment of quinine, have been exceptionally frequent during the quarter. A great number of cases seem to have also occurred among the haymakers employed in the valley of the Seine.

### Fatal Wound of the Heart by a Needle.

Dr. Gallard, at a recent meeting of the Société de Biologie, related an interesting case which has since been published in the *Révue Médico-Photographique* for July.

About the middle of March, a man, aged 25, applied concerning a violent blow which he had received in the præcordial region, a trunk, which the evening before he was placing on a carriage, having fallen back on his chest with its entire weight. The violence of the shock caused severe pain and considerable dyspnœa, for which he had been cupped. There was no injury to the parts, not even ecchymosis, and after remaining four days in La Pitié the man was able to resume his occupation, although some dyspnœa still continued. On April 12 he was seized, without appreciable cause, with shivering, vomiting, and diarrhœa, and was readmitted into the hospital. There was excessive pallor of the countenance, the eyes being deeply sunken, and the lips colourless. The surface was covered with cold sweat, and the pulse, scarcely to be felt, beat 120. Respiration was very laboured, and was interrupted by constant hiccough, the patient also constantly vomiting green fluid matters, and suffering from diarrhœa. Pain and a feeling of great oppression existed at the pit of the stomach. The only thing remarkable, discoverable by examination of the chest, was considerable dulness in the præcordial region, with absence there of respiratory murmur. The pulsations of the heart were very rapid, although seeming as it were at a distance. The man died the day after his admission, and the autopsy was made the day after that.

Dr. Gallard, commenting on the case to his class, indicated the probability of poisoning, but the lesions found were of a very different nature from those expected. The organs of respiration, digestion, and of the nervous system were found to be healthy; but the pericardium was distended by a large quantity of almost pure blood, and the heart presented a semilunar wound produced by a fragment of a needle implanted in an intercostal space, and projecting about twelve millimetres into the cavity of the pericardium. The foreign body was one centimetre and a half long, implanted at the anterior extremity of the fourth intercostal, close to the upper edge of the fifth sterno-costal cartilage. It was directed from forwards backwards, and perhaps a little inwards. Its free extremity was very sharp, and its fixed end was cleanly broken. The metal was quite blackened. The skin opposite the point of penetration presented no trace of the passage of the needle. In the pericardium numerous adhesions were set up. The wound of the left ventricle, situated nearly midway between the apex and base of the organ, was semilunar in form, and measured twenty-five millimetres in length and three or four in depth. The visceral pericardium corresponding to it had quite disappeared, and the muscular substance was denuded and jagged. But the remarkable thing was that the edges of the solution of continuity exhibited no signs of inflammatory action whatever, not the slightest trace of this being discoverable. The rest of the heart was quite normal in its texture; its cavities contained no blood, but the pericardium contained a large quantity of liquid blood—this hæmorrhage, indeed, being the cause of death.

The case is of interest in more than one particular—1. How and when did the implantation of the needle take place? This is difficult to determine, since the patient was not aware of any such penetration; but there can be no doubt that the needle must have been there a considerable time, as shown by the complete organisation of the pleural false membranes, the inflammatory action around the point of perforation, and the chemical change of the metallic surface. 2. If the foreign body had thus sojourned a considerable time, how comes it that the fatal ultimate phenomena set up during the last three days of life were not manifested before? The probability is that the point of the needle did not enter directly into the cardiac substance, this only becoming torn against it when it had become fixed in a perpendicular direction, in consequence of the thickening and adhesions of the pericardium consequent upon the irritation caused by the broken extremity. 3. It is interesting to note that when the point of the needle became fixed, the heart, during its movements, lacerated itself against the point, so that the surface of the ventricle exhibited the, so to say, automatic tracing of its displacements.

### Adenoid Tumour of the Male Breast.

In the same number of the *Révue* a case is related of a man who came under M. Demarquay's care at the Maison de Santé, having a tumour of the right breast. It first appeared three years since, and remained stationary during a year, being then of the size of a filbert, hard and indolent. It then, without having been submitted to any contusion, began to increase somewhat rapidly, so that in six months it had attained the size of an egg, and become soft and fluctuating to the touch. The skin, also, which at that time had preserved its normal colour, became redder, without, however, assuming an inflammatory character. While this tumour slowly increased, a second was developed alongside of it, and the patient, although he did not suffer any pain, became desirous of having an operation performed. On admission, on May 19, the tumour, strongly projecting, exhibited a well-defined circumference, and consisted of three lobes, which were movable over the subjacent parts. It had a circumference of thirty centimetres, and a height of about six; and the skin which covered it was red and firmly adherent. At its internal part a cystic tumour could be felt, to which its principal volume was due. On the outer side of this was another cyst of quite recent occurrence. The nipple was much displaced. There were no glands felt in the axilla. The tumour was removed on the 29th, being easily detached from the aponeurosis of the pectoralis, and the wound eventually cicatrised, although the progress of the case was greatly delayed by an attack of erysipelas. On examination the tumour was found to be a simple adenoid, without any trace of malignant growth.

# GENERAL CORRESPONDENCE.

## LUNATIC ASYLUMS IN OUR WEST INDIA COLONIES.

### Letter from Dr. Gavin Milroy.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following circular despatch about the above subject, recently addressed by the Secretary of State to the governors of these dependencies, is of so much interest to the medical profession that it seems to me to deserve to be made generally known:—

"Downing-street, May 20, 1874.

"Sir,—Mr. E. E. Rushworth, whilst administering the Government of British Guiana, suggested to my predecessor

that it would be dosirable to appoint, at the joint expense of the West Indian colonies, an able and experienced officer to act as inspector of the lunatic asylums in those colonies; and he suggested to me the name of Dr. Allen, at present Superintendent of the Lunatic Asylum in Jamaica, as that of an officer eminently fitted for the post.

"I am inclined to view the proposal favourably, but before coming to any final conclusion on the subject I think it may be desirable to invite the colonies concerned to agree to a single preliminary tour of inspection being undertaken by Dr. Allen.

"Dr. Allen was selected about ten years ago for the post he now occupies on the recommendation of the Lunacy Commissioners in England. The lunatic asylum in Jamaica had then recently been the subject of investigation by a local commission, and its condition had been discovered to be unsatisfactory in the highest degree. Dr. Allen set to work to reform the asylum, and by his knowledge, ability, and zeal he has now succeeded in making its condition one of high efficiency and a credit to the colony.

"I have no doubt that your Government would derive valuable assistance from the recommendations of Dr. Allen, and I desire to receive the views of your Government on the subject.

"I would propose three guineas a day, and travelling allowances, as the remuneration of Dr. Allen whilst on this tour of inspection, to be apportioned amongst the West Indian colonies in proportion to their imports.

"In no case would I think it necessary to dissociate Dr. Allen altogether from the duties he now discharges in Jamaica, and I would propose £1000 per annum, and travelling allowances, as the amount of his remuneration in the event of his final appointment—half his salary to be paid by Jamaica, and half by the other West Indian colonies which may desire to avail themselves of his services. The saving thus gained by Jamaica would amount to £300 per annum, and would enable that colony to provide the extra assistance in the lunatic asylum, which will be necessary in consequence of Dr. Allen's partial withdrawal from his duties connected with that institution.

"I have the honour to be, Sir,

"Your most obedient humble servant,

"Carnarvon.

"The Officer Administering the Government of ——."

When I was in Jamaica, in the spring of 1872, I had the opportunity of thoroughly examining its lunatic asylum by repeated visits, in company with Dr. Allen; and I have the greatest pleasure in testifying to the admirable condition that it has been brought to through his exertions, in which he has always been much encouraged by the counsel and co-operation of our mutual friend, Dr. Bowerbank. In my late Report on Leprosy and Yaws, I have expressed my sense of the signal public benefit from the work thus effected, with the hope of stimulating the Island Government to the much needed reforms in the kindred institution for the relief of another class of sufferers, the poor lepers, who have been hitherto grievously neglected. I may be permitted to add that I have reason to believe that the attention of the Government of British Guiana, and subsequently of the Colonial Office, being drawn to the defective condition of its lunatic asylum at Berbice, was, partly at least, due to the expression of my opinion, recorded in the visitors' book of the institution, after going over it in September, 1871, with Dr. Watkins, the then medical officer.

In reply to a communication from the Colonial Office, in July, 1872, after my return to this country, I suggested "that the Guiana Legislature be invited to make themselves well acquainted with what has been done of recent years in Jamaica, and with the present condition and arrangements of the lunatic asylum there. This might be easily done, and at very moderate expense, by deputing a competent officer, as Dr. Watkins is known to be, to visit it, and ascertain by personal inspection the many salutary improvements which had been introduced by Dr. Allen, whereby the character of the institution, which was formerly a reproach to the island, has become the theme of admiration among both the inhabitants and strangers." The plan now proposed by the Secretary of State is much preferable in every respect to my suggestion, and cordially do I trust that it will be carried into effect.

I am, &c., Gavin Milroy, M.D.

Richmond, S.W., August.

## OBITUARY.

### JOHN BURFORD CARLILL, M.D.,

Died recently at his residence, Weymouth-street, Portland-place, W. He was educated at University College and Hospital, to which latter institution he fulfilled the duties of clinical assistant and subsequently house-surgeon. During the whole of his career as a pupil he distinguished himself greatly, and was the recipient of various prizes. He was one of the first house-surgeons who were elected by *concours*, and fully established the justice of that mode of election. He was a man of singular energy of purpose, combined with great abilities and modest unassuming manner. He commenced practice in Berners-street in succession to the late Mr. Lambert, and was most successful. On the occurrence of a death vacancy, he succeeded to an old-established practice in Weymouth-street, which he carried on till his death, maintaining to the last a good and lucrative position. Some years since Dr. Carlill suffered from a severe attack of diphtheria, but his life was saved by the performance of tracheotomy by Mr. Quain, when he appeared to be *in articulo mortis*. He never, however, rallied entirely from this operation, though he was enabled to continue practice.

## MEDICAL NEWS.

University of London.—The following are lists of candidates who have passed the recent First M.B. examination:

Examination for Honours.

anatomy.

*First Class.*—Keetley, Chas. Robert Bell (Gold Medal), St. Bartholomew's Hospital.

physiology, histology, and comparative anatomy.

*First Class.*—Tirard, Nestor Isidore Chas. (Exhibition and Gold Medal), King's College; Carrington, Robert Edmund, Guy's Hospital.

*Second Class.*—Keetley, Charles Robert Bell, St. Bartholomew's Hospital.

organic chemistry, and materia medica, and pharmaceutical chemistry.

*First Class.*—Carrington, Robert Edmund (Exhibition and Gold Medal), Guy's Hospital; Keetley(a), Charles Robert Bell (Gold Medal), St. Bartholomew's Hospital; Burton, Samuel Herbert, University College.

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Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 13:—

Harle, William John Vincent, Eagle Villa, Hackney.
Horne, John Fletcher, Clarendon-road, Leeds.
Snook, William Ernest, Clyton, Devon.

The following gentleman also on the same day passed his primary professional examination:—

Lucas, Arthur, Middlesex Hospital.

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### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

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Brailey, William Arthur, M.A., M.D. Camb., B.A. Lond., M.R.C.S., Fellow of Downing College, Cambridge—Curator of the Museum of the Royal London Ophthalmic Hospital, Moorfields.

Chartres, William, L.R.C.S.I., L.K.Q.C.P.I., L.M.—Medical Officer, etc., for the Strangford Dispensary District of Downpatrick Union, co. Down.

Keyworth, G. H., M.R.C.S., L.S.A.—House-Surgeon to the Bucks General Infirmary, Aylesbury, *vice* Mr. B. H. Williams, resigned.

Pope, John Robinson, M.R.C.S., L.S.A.—Medical Officer for the Weald District of Hendon Union.

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### BIRTHS.

Barnes.—On August 16, the wife of G. R. Barnes, M.D., at Dorset House, Ewell, Surrey, of a daughter.

Cummingham.—On August 14, at Herne Bay, the wife of Surgeon-Major J. P. Cummingham, M.D., Army and Navy Medical Department, prematurely of twin sons.

Hopkins.—On August 12, at Pattersky, Norfolk, the wife of A. Boyd Hopkins, Esq., of 108, Shorditch, Surgeon, prematurely of a daughter.

Land.—On August 5, at 41, Woolwich-common, the wife of James Land, M.D., Royal Horse Artillery, of a son.

Philpot.—On August 16, at East Dulwich, the wife of Harvey J. Philpot, L.R.C.P., M.R.C.S., of a son.

Plaskitt.—On August 15, at 25, Chapel-street, Belgrave-square, the wife of Joshua Plaskitt, F.R.C.S., of a son.

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(a) Obtained the number of marks qualifying for the Exhibition.

## MARRIAGES.

BRADLEY—RACKHAM.—On August 18, at St. Mary Magdalene, Paddington, Arthur Granville, eldest son of the Rev. G. G. Bradley, Master of University College, Oxford, to Florence, only daughter of William Abel Rackham, M.R.C.S., and granddaughter of the late John Fuller, Esq., of Beachamwell, Norfolk.

BUCK—GUNNING.—On August 15, at St. Pancras, Alfred Henry Buck, M.R.C.S., L.R.C.P., to Charlotte Augusta Gunning, eldest daughter of Thomas Wyatt Gunning, Esq., of 52, Tavistock-square, W.C.

CURRIE—GRAVES.—On August 11, at St. Mary de Crypt, Gloucester, Frederick Alexander Currie, Esq., Lieutenant 9th Regiment, to Geraldine Lucy, second daughter of R. W. Graves, Esq., F.R.C.S.E., of 80, Barton-street, Gloucester.

DAVIS—YOUNG.—On August 12, at Wrington, Somerset, the Rev. G. F. L. Davis, M.A., Curate of Helidon, to Mary A. Young, granddaughter of W. H. Young, M.D. (late 28th Regiment), of the Cottage, Wrington.

DUNCAN—JEFFREYS.—On August 10, at Holy Trinity, Richmond, George James Duncan, barrister-at-law, of the Inner Temple, to Jane Angela, daughter of Julius Jeffreys, F.R.S., of the Indian Medical Service (retired).

INGLIS—GORDON.—On July 27, at the Church of the Transfiguration, New York, Archibald Inglis, third son of Archibald Inglis, M.D., F.R.C.S. Edin., to Charlotte Douglas, eldest daughter of the late William Gordon, Esq., Madeira.

PRITCHARD—PAUL.—On August 11, at St. Mary's, Putney, William Benning, eldest son of W. T. Pritchard, Esq., of Southmead, Wimbledon-park, and Doctors' Commons, to Helen Sophia Littlejohn, elder daughter of the late J. J. Paul, M.D., formerly of the Royal Navy.

## DEATHS.

BAUMGARTNER, JOHN THOMAS, M.D., at Godmanchester, Huntingdon, on August 12, aged 97.

FAIRBANK, SARAH ELLEN, the beloved wife of F. Royston Fairbank, M.D., M.R.C.P., at Lynton, North Devon, on July 30.

HADLEY, HENRY, M.D., Deputy Inspector-General, at Malvern, on August 15.

HOPKINS, SOPHY SARAH, infant daughter of A. Boyd Hopkins, M.R.C.S. Eng., L.S.A., of 180, Shoreditch, E., at Pattesley, Norfolk, on Aug. 13.

PEREGRINE, HUGH LEY, eldest son of T. Peregrine, M.D., M.R.C.P., of Half Moon-street, Mayfair, London, on board the steamship *Hooper*, on the voyage home from Para, on July 27, aged 25.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL DISPENSARY.—Additional Resident Surgeon. Must be duly qualified and registered. Applications, with testimonials, to A. Forrest, Secretary, on or before August 29.

CARLISLE DISPENSARY.—Assistant House-Surgeon. Applications, with testimonials, to Mr. Davidson, Honorary Secretary, 8, Devonshire-street, Carlisle.

CASTLE WARD UNION, NORTHUMBERLAND.—Medical Officer. Must be duly qualified and registered. Applications, with testimonials, to Thomas Arkle, Clerk to the Guardians, on or before August 22.

DURSLEY UNION.—Medical Officer. Applications, with testimonials, to George Wenden, Clerk to the Guardians, on or before August 26.

GARSTANG RURAL SANITARY DISTRICT.—Medical Officer of Health. Applications to Thomas Noble, Clerk, on or before August 27.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, MANCHESTER.—Assistant-Physician. Must be duly qualified and registered. Applications to the Chairman, Gartside-street, Manchester, on or before August 22.

HULL AND SCULCOATES DISPENSARY.—Resident Surgeon. Candidates must possess both a medical and surgical qualification, and be registered. Applications, with testimonials, to the Honorary Secretary, Mr. G. W. Stourton, on or before September 2.

HULL GENERAL INFIRMARY.—Resident Assistant-Surgeon. Applications, with testimonials, to the Chairman, Henry Gibson, Esq., at the Infirmary, from whom further particulars may be obtained. The post will be vacant on September 1.

LUNESDALE UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. Robert Stephenson, Clerk, on or before September 8.

NEWCASTLE-UPON-TYNE INFIRMARY.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Sub-Committee, on or before September 15.

ROYAL INFIRMARY, MANCHESTER.—House-Physician. Must be duly qualified and registered. Applications, with testimonials and diplomas, to the Chairman of the Weekly Board, on or before August 22.

WEST LONDON HOSPITAL, HAMMERSMITH-ROAD, W.—Junior Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London. Applications, with testimonials, to the Secretary, on or before August 22.

WEST NORFOLK AND LYNN HOSPITAL.—Resident Medical Officer and Secretary. Must be fully qualified. Applications, with testimonials, to the Weekly Board, King's Lynn, on or before August 22.

YORK DISPENSARY.—Resident Medical Officer. Applications, with testimonials, to S. W. North, Esq., Castlegate, York, on or before September 3.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATION.

*Tynemouth Union.*—Mr. Byrom Bramwell has resigned the Tynemouth District; area 1825; population 16,560; salary £60 per annum. Also the Workhouse; salary £100 per annum.

### APPOINTMENTS.

*Downham Union.*—Edward A. Piggott, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Stoke Ferry District.

*Driffield Union.*—Joseph Jackson, L.R.C.P. Edin., L.R.C.S. Edin., to the Frodingham District.

*Hendon Union.*—John Robinson Pope, M.R.C.S.E., L.S.A., to the Harrow Weald District.

*Hexham Union.*—Robert Talbot Beamish, M.D. Dublin, to the Blanchland District.

*Liskeard Union.*—Wm. Nettle, M.R.C.S.E., L.S.A., to the Workhouse.

*Okehampton Union.*—Alfred J. G. Waters, L.R.C.P. Edin., M.R.C.S.E., to the Second District and Workhouse.

*Pocklington Union.*—Thomas Jewison Jefferson, M.D. Aber., M.B., M.R.C.S.E., L.S.A., to the Market Weighton First District.

*Stow-on-the-Wold Union.*—Albert S. Drew, L.R.C.P., M.R.C.S., L.S.A., to the Loughborough District and Workhouse.

*Todmorden Union.*—Joseph Lawson, M.B. Dub., L.R.C.S.I., to the Heptonstall Union.

*Walsingham Union.*—Frederic Eyres Taylor, M.R.C.S.E., L.S.A., to the Wells District.

ROYAL COLLEGE OF SURGEONS.—An interesting addition to the Museum of the College has just been made by Mr. Thomas Taylor, F.R.C.S., in the presentation by him of the skeleton of "Hafed," the favourite and well-known deerhound of the late Sir Edwin Landseer, R.A. Mr. Taylor, knowing how desirous Professor Flower was to have a specimen of the pure-bred animal for the collection under his able management, attended the sale of the effects of the eminent artist, and became the purchaser of this noble dog, not, however, without a sharp contest, having to give nearly £6 for it.

A NEW NOMENCLATURE.—The Medical Officer to the General Post Office (says the *Globe*), in his report on the candidates for minor appointments in that department during the past year, gives a few examples of the replies of candidates in making their written statements as to the medical histories of their families, or of themselves, and he remarks—"It is to be hoped that in future years the effects of compulsory education may be shown by rendering such replies among the things of the past":—"Father had a sunstroke and I caught it of him"; "My little brother died of some funny name"; "A great white cat drawed my sister's breath, and she died of it"; "Apperplexity"; "Parasles"; "I caught tiber fever in the Hackney-road"; "I had gearnders"; "Burralger in the head"; "Rummitanic pains"; "Shortness of breadth"; "Carracatic fever"; "Indigestion of the lungs"; "Sister was consumpted, now she's quite well again"; "Sister died of compulsion"; "Toncertina in the throat"; "Pistoles on the back."

## NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

*R. T. B.*—*Philosophical Magazine*, vol. xxv., page 18.

*Harry V.*—The first obscure mention of academical degrees was in 1214, in the University of Paris. In 1231 academical degrees were completely established in Europe.

*T. A. S.*— "An apothecary on a white horse
Rode by on his vocatiou;
And the Devil thought of his old friend
Death, in the Revelation."—*Southey.*

*M. O. H.*—The Society of Medical Officers of Health numbers upwards of 130 members.

*P. P., Leicester.*—Alehouses were first licensed in 1551. Both ale and alehouses are mentioned in the laws of Ina, King of Wessex.

*R. N., Plymouth.*—You will find the editorial articles on the Treatment of Naval Surgeons in vol. xix. of this journal, p. 237 *et seq.*

*H. M., Barnstaple.*—You will find a notice of the gentleman you mention, and all the circumstances of the case, in Clarke's "Autobiographical Recollections." Photographs of the members of the General Medical Council you can obtain of Messrs. Barraud and Jerrard, of Gloucester-place, Portman-square, who have just taken admirable portraits of Drs. Acland and Paget, of Oxford and Cambridge, and of Sir Dominic Corrigan and Dr. Stokes, of Dublin.

*Mr. Manning.*—Palmer's edition of the works of John Hunter. Sir James Frederick Palmer, the author, died in April, 1871. He was chosen the first Speaker of the Legislative Council of Victoria in 1851, and first President in 1856. From a very interesting volume of valuable autographs in the possession of Mr. Charles Hawkins, a former member of the Council of the College of Surgeons, we learn that Palmer's grandmother was a sister of the celebrated artist, Sir Joshua Reynolds, President of the Royal Academy.

*Douglas G.*—About the year 1815 an asylum was founded in Calcutta for children whose parents were Europeans.

*Georgia.*—Your American qualifications cannot be registered in England; but you might obtain an unqualified assistantship in England, while qualifying yourself for registration.

*A Student, Oxford-terrace.*—The late Miss Brackenbury bequeathed £2000 to St. George's Hospital for providing prizes for the best pupil in surgery and the best pupil in medicine during the year. Write to the Secretary, who will no doubt supply you with a copy of the last interesting report of the hospital.

BOOKS AND PAMPHLETS RECEIVED—

La Lithotritie et la Taille, par le Dr. J. Civiale—Clinique Médicale de Montpellier, par Professeur J. Fuster—La Vie Physiologie Humaine appliquée à l'Hygiène et à la Médecine, par le Dr. Gustave le Bon—Le Monde Microscopique des Eaux, par Jules Girard—Les Plantes Médicinales et Usuelles de nos Champs, Jardins, Forêts, Description et Usages, par H. Rodin—Causeries Scientifiques de Couvertes et Inventions, Progrès de la Science et de l'Industrie—Flint's Essays on Conservative Medicine and Kindred Topics—De l'Ictère Hématique-Traumatic, par le Dr. A. Poncet—Histoire de la Peste Bubonique en Perse, par le Dr. Tholozan—Heatherington on the Mining Industries of Nova Scotia—Quarterly Return of the Births, Deaths, and Marriages registered in Scotland.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Students' Journal and Hospital Gazette—Cincinnati Lancet and Observer—Berliner Klinische Wochenschrift—Le Progrès Médical—La France Médicale—Gazette des Hôpitaux—Centralblatt für Chirurgie—Gazette Hebdomadaire—Bulletin Général de Thérapeutique—Bulletin de l'Académie de Médecine—New York Medical Journal—Chicago Medical Journal—Sunderland Times—Gazette Médicale—La Tribune Médicale—Lincolnshire Chronicle—Irish Hospital Gazette—Pharmaceutical Journal—St. Pancras Gazette.

COMMUNICATIONS have been received from—

Dr. Cornelius B. Fox, Chelmsford; Mr. G. Fell, Aylesbury; Mr. S. Seed, Downpatrick; Mr. W. A. Tootel, Hendon; Mr. J. E. Ingpen, London; Mr. J. Rand. Clacton-on-Sea; Sir John Rose Cormack, Paris; Mr. T. Borchert, Netley; The Director-General of the Army Medical Department; Mr. Vincent Jackson, Wolverhampton; Dr. Gavin Milroy, Richmond; Dr. A. Harvey, Aberdeen; Dr. Fayrer, London; Mr. H. Morris, Limerick; Dr. T. Grainger Stewart, Edinburgh.

## APPOINTMENTS FOR THE WEEK.

*August* 22. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

24. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

26. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

27. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

28. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Quekett Microscopical Club, 8 p.m. Meeting.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, August* 15.

### BIRTHS.

Births of Boys, 1186; Girls, 1179; Total, 2365.
Average of 10 corresponding years 1864-73, 2078·0.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 706 | 662 | 1368 |
| Average of the ten years 1864-73 | 815·6 | 773·1 | 1588·7 |
| Average corrected to increased population | ... | ... | 1748 |
| Deaths of people aged 80 and upwards | ... | ... | 45 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 2 | 2 | ... | 2 | 1 | 5 | 1 | 32 |
| North... ... | 751729 | ... | 3 | 8 | 1 | 6 | 2 | 2 | 2 | 61 |
| Central ... | 334369 | ... | 4 | 6 | 1 | 2 | ... | 2 | 1 | 17 |
| East ... ... | 639111 | ... | 6 | 26 | ... | 5 | ... | 3 | 2 | 56 |
| South... ... | 967692 | ... | 3 | 10 | 3 | 6 | ... | 4 | 5 | 77 |
| Total ... ... | 3254260 | ... | 18 | 52 | 5 | 21 | 3 | 16 | 11 | 243 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·537 in. |
| Mean temperature | 58·2° |
| Highest point of thermometer | 69·8° |
| Lowest point of thermometer | 47·8° |
| Mean dew-point temperature | 51·1° |
| General direction of wind | W.S.W. |
| Whole amount of rain in the week | 1·04 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 15, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Aug. 15. | Deaths Registered during the week ending Aug. 15. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2365 | 1368 | 69·8 | 47·8 | 58·2 | 14·55 | 1·04 | 2·64 |
| Portsmouth ... | 120436 | 26·8 | 77 | 58 | ... | ... | ... | ... | 1·02 | 2·59 |
| Norwich ... ... | 82257 | 11·0 | 55 | 42 | 67·0 | 46·0 | 56·2 | 13·44 | 1·12 | 2·84 |
| Bristol ... ... | 192889 | 43·3 | 131 | 72 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 46 | 30 | 68·8 | 44·3 | 55·9 | 13·28 | 1·26 | 3·20 |
| Birmingham ... | 360892 | 43·0 | 274 | 234 | 68·2 | 46·5 | 57·3 | 14·05 | 0·95 | 2·41 |
| Leicester ... ... | 106202 | 33·2 | 91 | 67 | 69·0 | 45·0 | 57·4 | 14·11 | 0·80 | 2·03 |
| Nottingham ... | 90894 | 45·5 | 51 | 52 | 70·6 | 45·2 | 57·4 | 14·11 | 0·49 | 1·24 |
| Liverpool ... ... | 510640 | 98·0 | 337 | 341 | 68·1 | 49·7 | 55·6 | 13·11 | 0·78 | 1·98 |
| Manchester ... | 355339 | 82·8 | 258 | 215 | 69·0 | 48·0 | 56·9 | 13·83 | 1·78 | 4·52 |
| Salford ... ... | 133068 | 25·7 | 105 | 79 | 68·3 | 46·8 | 55·4 | 13·00 | 2·75 | 6·98 |
| Oldham ... ... | 86281 | 18·5 | 74 | 46 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 108 | 95 | 65·8 | 50·2 | 56·1 | 13·39 | 0·77 | 1·96 |
| Leeds ... ... | 278798 | 12·9 | 256 | 145 | 67·0 | 49·0 | 57·0 | 13·89 | 0·77 | 1·96 |
| Sheffield ... ... | 261029 | 13·3 | 210 | 173 | 71·0 | 47·5 | 56·4 | 13·55 | 1·14 | 2·90 |
| Hull ... ... ... | 130996 | 36·0 | 97 | 86 | 67·0 | 46·0 | 55·4 | 13·00 | 0·99 | 2·51 |
| Sunderland ... | 104378 | 31·6 | 102 | 50 | ... | ... | ... | ... | ... | ... |
| Newcastle-on-Tyne | 135437 | 25·2 | 87 | 83 | 65·0 | 46·0 | 53·9 | 12·17 | 0·45 | 1·14 |
| Edinburgh ... ... | 211691 | 47·8 | 127 | 76 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 346 | 266 | ... | ... | ... | ... | ... | ... |
| Dublin ... ... | 314666 | 31·3 | 195 | 164 | 67·4 | 43·0 | 56·4 | 13·55 | 2·38 | 6·05 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5392 | 3742 | 71·0 | 43·0 | 56·4 | 13·55 | 1·16 | 2·95 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·54 in. The highest was 29·91 in. at the end of the week, and the lowest 29·29 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## CLINICAL LECTURES DELIVERED IN THE ROYAL INFIRMARY OF EDINBURGH.

By T. GRAINGER STEWART, M.D., F.R.C.P.,
Physician to the Royal Infirmary; Lecturer on Clinical Medicine and on the Practice of Physic.

### V.—ON SOME CASES OF NERVOUS DISEASE ATTENDED BY MUSCULAR TWITCHING.

Gentlemen,—We have lately had under treatment in my wards several cases illustrating different forms of nervous disease attended by tremulousness or jerking of the muscles. I propose to-day to direct your attention to some of these cases. The first I bring before you is an example of paralysis agitans.

W. G., a farmer, aged sixty-seven, single, a native of, and resident in Caithness, presented himself as an out-patient on June 6, 1874, complaining of general trembling and weakness, from which he had suffered for five years. He had been a steady, sober, and hard-working man, had always had a comfortable home and good food, and never met with any accident nor suffered from important illness. About 1869 he noticed that his left hand began to tremble; this gradually increased till the latter part of 1871, when his left foot became similarly affected, afterwards the right hand, then the right leg, and ultimately the head became involved. Following upon the tremulousness, he observed a slowly advancing weakness. He never had any numbness, but some pain in the affected parts. He said that his mother and an aunt suffered in the way he does, though in a less degree, and at a more advanced age.

He is a well-built man, of medium height, with round shoulders and inclined to one side. His body and extremities are constantly jerking. His temperature is normal. There is nothing important in regard to the alimentary system, excepting that the tongue is unsteady, and the saliva is somewhat excessive and trickles a little from the right side of his mouth. The circulatory, lymphatic, respiratory, integumentary, and urinary systems are normal.

*Nervous System.*—He has occasional attacks of pain in the left side and back, but only on exertion. He says that he sometimes experiences a sensation of great heat in the chest and abdomen. The sensibility to touch, temperature, tickling, and pain are normal. The sight is pretty good, and there is nothing wrong with the eyes. Hearing has been somewhat impaired for forty years. Taste, smell, and muscular sense are quite good. Reflex motor functions are normal. Voluntary motion is impaired, especially on the left side, and more in the arms than in the legs. Except when he is asleep, there is a constant jerking movement of the arms, legs, and head, and a twitching of the muscles about the mouth and the tongue. These movements were at first to a certain extent and for a limited time under the control of his will, and even now he has considerable power over his right hand. Under excitement or emotion the jerkings increase. He can feed himself, though with some difficulty. When he is going to drink he holds the vessel in both hands, but does not swallow with a gulp. The electro-sensibility is greater in the arms than in the legs, and greater in the right leg than in the left. The electro-contractility is considerably diminished in the muscles of the legs. There is no tenderness on percussion over the spine, and no defect of memory or other mental faculty.

*Locomotory System.*—The bones and joints are normal. The muscles are not wasted. He walks with a festinant gait, and with his body somewhat inclined to one side. He does not raise his feet clear of the ground, and, although he can walk a good distance, he feels much weaker than he once did, and can endure much less fatigue than formerly.

I have brought this patient before you as a typical example of the disease described as paralysis agitans, or the shaking palsy. It was not differentiated till 1817, when Dr. Parkinson(a) published in his well-known essay a description which will always hold its place. He defines the disease as consisting in "involuntary tremulous motion with lessened muscular power in parts not in action, and even when supported; with a propensity to bend the trunk forward, and to pass from a walking to a running pace, the senses and intellect being uninjured." Now, notice, according to our usual method, the features of this case, and how exactly it corresponds to Parkinson's description. In most cases there are no abnormal *sensations*, but our patient tells us that he has had a good deal of pain in the affected parts. In exceptional cases it has been observed that the tremulousness was not absolutely the first symptom, but that it is preceded by rheumatic or neuralgic pains, sometimes very acute, and affecting the members or parts of members which afterwards become affected with the tremulousness.(b) In our case the rheumatic pain seems to have followed the essential symptoms, and they still continue when he exerts himself. He is not disturbed with the crampy or tension-like feelings of which some patients complain, nor with much of that excessive restlessness which affects others so that they cannot remain in any fixed position, but when in bed require constantly to alter their posture. But he vividly described a singular symptom which affects some patients—viz., a feeling of heat in the abdomen and chest. This is purely subjective, unattended by any elevation of temperature. The *sensibility* of all kinds is normal, only the *electro-sensibility* appearing to be somewhat more acute in the right leg than the left. The *special senses* are natural, as are also the *muscular sense* and *reflex action*. As to *voluntary* motion, it is distinctly impaired, particularly on the left side, and more in the arms than in the legs, but he can take a tolerably firm grasp, and step up on a chair with either leg first without much difficulty. His muscular weakness is most apparent to himself when he contrasts his present power of exertion and endurance with what he formerly possessed. The impairment of the muscular functions is as much due to the characteristic jerking movements as to actual paralysis, and these jerkings in some parts are still to a certain extent controlled by an effort of the will.

Sylvius Deleboe(c) appears to have been the first to distinguish between tremors occurring when the muscles are not in voluntary action, as in the present case, and those induced by attempts at voluntary motion, as in the case of another patient to whom I shall presently direct your attention. Observe the kind of motion: it consists generally in rapid, equal, regular to-and-fro movements; not oscillations in a single line, but such as to describe a sort of elongated oval curve. The two arms correspond, although they are not equally affected; the elbows are slightly bent, and the hands play somewhat after the fashion of a drummer beating rapidly and lightly. Besides this general movement, there is a constant flexion and extension going on at the fingers, wrists, to a less extent at the elbows, still less at the shoulders. With regard to the legs, the jerking is not so marked, but by laying the patient down or placing him with the feet unsupported you may easily study the movements in them. There may be simply a movement at the ankle-joint, regular and rhythmical; the knees are twitched about, bent and straightened, drawn together and then apart. As to the head, the movement is generally from side to side, or rather, as in our patient, in an oblique direction, and sometimes has a rotating character.

Notice his walking. He inclines slightly to one side, but very markedly forwards. He rests on the front of his feet, the knees are bent, the trunk inclines forward, and the head is in advance. He appears, as Trousseau happily describes it, as if running after his centre of gravity, which constantly escapes him. Some patients after taking a few steps at a walking pace are impelled to run, and they tell you that they would fall if they did not. Very rarely there is a corresponding tendency to run backwards.

Our patient does not exhibit a remarkable feature of the disease which has been insisted on by Charcot and Ordenstein(d)—viz., the appearance of the hand. In the first stage of its affection the hand is like one holding a pen, the fingers elongated, bent on the metacarpal bones. Afterwards the first phalanges are bent in, the second phalanges markedly extended, the third again flexed.

The jerking movement of the head and of the tongue, the slight excess of saliva and its tendency to trickle from the right side of his mouth, are further features which I wish you to remember.

As to the influences modifying the movements, you have seen how the less affected hand may for a little be controlled by voluntary effort. At one time our patient had much more

(a) Essay on the Shaking Palsy. London, 1817.

(b) See Charcot, "Leçons sur les Maladies du System Nerveux," p. 148.
(c) Francisci Deleboe, "Sylvii Opera Medica," lib. i., caput 42, p. 292.
(d) Thèse Inaugurale, 1853; quoted by Ordenstein, p. 12.

control. Parkinson(e) refers to the case of an artist afflicted with the malady, who, although his hand and arm were trembling, could so steady the limb when he grasped his pencil, that he could draw for a short time with precision. But such an amount of control is very exceptional, and is not to be looked for in the later stages. You have seen how emotion increases the movements; and this is in this disease, as in chorea, always the case. Our patient tells us that the muscles rest when he falls asleep. It is very rare in any case for the movement to continue during sleep. Intercurrent affections sometimes make it cease; patients have been known to become affected with hemiplegia, for a time to be free from trembling, and as the paralysis yielded again to become subject to the original symptoms. *Electro-contractility* is normal, and the muscles are well nourished. There is no evidence of *tenderness* over the *spine*, nor affection of the *mental functions*.

It is also of interest to note the *family history*, his mother and an aunt having suffered in a similar way. The progress of the malady in our patient is also extremely characteristic, having begun five years ago, and having been at first confined to one hand, from which it gradually extended.

We have now to inquire with what morbid conditions such a clinical history is associated. There is one well-known case recorded by Professor Leyden,(f) of Strasbourg, in which paralysis agitans confined to the right arm was found to be due to a sarcoma in the left optic thalamus. Leyden and Oppolzer(g) record cases of ordinary hemiplegia in which trembling was superadded to the paralysis. In other cases,(h) sclerosis of the pons Varolii, the medulla oblongata, as well as of the spinal cord, has been found. Joffroy(i) found, beside scattered sclerosis of the cord, dilatation of its central canal with proliferation of its epithelium. Ordenstein(k) reports the autopsy of three cases. In the first, which had lasted thirty-three years, he found a rarefaction of the nerve-tubes, which were a little further apart than in the normal condition. In the second, softening of both cerebral peduncles, several cavities in the pons Varolii, and lesions of the medulla. In the third, the result was entirely negative. He also states that others have found similarly negative results. Jaccoud(l) states, that whether the lesion be recognisable by our present methods or not, it is unquestionably situated in the pons and medulla oblongata, and he says that certainly sclerosis is the commonest cause; but his statement at once suggests the fact that in his experience, as in that of others, definite lesions are not to be found in every case. Hammond(m) believes that under the term paralysis agitans several morbid processes have been included, and he seeks to differentiate a purely functional form from one due to sclerosis of the brain and cord, and one due to sclerosis of the brain alone. In illustration of the latter he gives a detailed account of a case in which the only lesion was multiple sclerosis of the white substance of the cerebral hemispheres.

With the facts before us, we cannot dogmatise as to the lesion from which our patient suffers, but it is more likely that he has scattered sclerosis of the brain, and particularly of the pons and medulla, than any other lesion.

What can be said as to the mode of production of the symptoms—Is the jerking a result of irritation, of more intense innervation, or is it due to a diminution or interruption of ordinary nerve-force? Most likely it is the latter. The facts of its occurrence in advanced life, as of its resulting in true paralysis, make this probable to begin with; and if we assume the rapid and temporary interruption of the nerve-influence upon which the muscular tone depends, we can understand how, this being confined to certain groups of muscles, the antagonistic muscles prevailing for the time, produce the peculiar movement. It is, however, extremely difficult to understand how regular periodic intermissions of nerve-force should occur in antagonistic groups of muscles, so as to produce the rhythmical oscillations. Of course, on the hypothesis of irritation this would be equally difficult to explain. With regard to prognosis, it must be unfavourable.

As to treatment, tonics and galvanism are among the agents to be employed. Professor Remak was very sanguine as to the effects of the constant current; Russell Reynolds had a similarly good result. Baths of various kinds and iodide of potassium are praised by some writers. Sedatives, such as henbane and hyoscyamin, have been found useful by some. As our present patient cannot remain in the Infirmary, we are unable to give a fair trial to any kind of treatment.

In contrast with this case, I now turn to an example of a disease much less known—multiple sclerosis of the brain and cord.

D. M., a weaver, aged nineteen, single, a native of, and resident in, Dundee, was admitted to Ward VII. on August 11, 1873, complaining of trembling and want of complete control over the movements of his body, particularly on the right side. He had been ill for six years. He had had several of the ordinary infantile complaints, and also had variola at the age of three. He was a delicate child, and was always poorly fed. His home was pretty comfortable, but he was exposed to cold when at work as a weaver. He had been poorly clad, and was often obliged to sit in the workshop for hours in wet clothes. About six years ago, the patient noticed for the first time a weakness and trembling of his legs. This disappeared in a month under treatment in the Dundee Infirmary, where he was treated with medicines and galvanism. A year afterwards his arms became similarly affected, the legs remaining free. Under treatment he again recovered in about a month. Two years later he was again attacked, but this time the whole body was involved, particularly the right side. His sight also became dim and double, and to some extent a loss of speech occurred. He remained in this condition for about two months, after which his vision and speech improved, but the feebleness continued to the present time. It was ascertained that the patient had masturbated to some extent two years ago.

On admission, he was a delicate-looking youth of five feet four inches, of sallow complexion, and with a deformed chest. His temperature was normal. The bowels were constipated, but otherwise all the systems were natural, except the nervous and locomotory. He had no abnormal sensation excepting attacks of giddiness, especially when he changed his position. Sensibility to touch was diminished over the whole body, but particularly on the right side, and the lower limb. Sensibility to temperature, tickling, and pain were also diminished, especially on the right side. The special senses and the muscular sense were all normal. Reflex movements were slow, especially on the right side. The patient was quite still when lying or sitting at rest. He could not walk, and could only with difficulty stand without a stick or crutch. Closing his eyes made no difference. When he walked about the ward he clutched at pillars or other objects for support. When he attempted to make any muscular movement, especially of the right arm or leg, he jerked, and it was from this as much as from muscular weakness—which, however, also undoubtedly existed, particularly in the right arm and leg—that his movements were so imperfect. Finer movements he achieved with the greatest difficulty. His writing was indistinct. He could scarcely feed himself, and when he attempted to drink he grasped the cup with both hands, but the jerking almost prevented his bringing it to his mouth, and he usually spilt a great portion of the liquid. When he got the vessel near his head he bent his neck to meet it, and then the head began to participate in the oscillations. There was no special tenderness over the spine. The intellect and memory were good. He slept well, and was not troubled with dreams. The speech was slow and interrupted, to a certain extent syllabic or staccato, but not markedly so.

Various plans of treatment were tried without much advantage, and about two months after admission he was in the same state as at first, excepting that he complained of giddiness, occasional headache, vomiting, and of occasional numbness of both legs, during the occurrence of which he walked more unsteadily than usual. The muscular sense also seemed impaired on the right side. The electro-sensibility was diminished on the left side of head and left arm; both legs were equally sensitive. Electro-contractility was diminished in both legs, apparently nearly natural in the arms. There was some tenderness on percussion along the whole length of the spine.

On March 20 of the present year he was again carefully examined, when his symptoms were found to be much the same as they had been in November—the general health being somewhat improved, and the muscular spasms slightly less intense.

In the end of July I had an opportunity of seeing the patient in Dundee, and found that he had slightly improved in all respects.

(*To be continued.*)

(e) *Op. cit.*, p. 23.
(f) "Klinik der Rückenmarkskrankheiten," vol. i., p. 111.
(g) *Loc. cit.*
(h) Charcot and Vulpian; quoted by Leyden.
(i) *Gazette des Hôpitaux*, 1872, No. 107; quoted by Leyden.
(k) "Sur la Paralysie Agitante et la Sclerose en Plaques generalisée," p. 21. Paris, 1868.
(l) "Pathologie Interne," p. 423.
(m) "Diseases of the Nervous System," third edition, p. 706.

## ORIGINAL COMMUNICATIONS.

# OPERA CLINICA.

# ON BLOOD-LETTING AS A POINT OF SCIENTIFIC PRACTICE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

Sir James Paget's speech at Norwich, "On the Practice of Blood-letting," has created, as everything that emanates from a mind so clear, truthful, and open must create, a marked effect on the fate of one of the oldest and most potent of remedies. To me, upon whom a full share of criticism has fallen, because I have steadily advocated and practised venesection in the cases for which I have felt it the sovereign remedy, the statement made by Sir James was peculiarly grateful. I treasure it as something to be remembered with special care, when, in emergency, the doubts and loudly-proclaimed but fanciful dangers of the timorous and uninformed oppose the correct application of that art of cure which lies in the abstraction of blood.

The argument of Sir James Paget owed its force to the truth with which he demonstrated that blood-letting was not so serious and dangerous a proceeding as in modern times it has been depicted. His words went to assure the weak. I crave permission to add a few sentences to sustain the strong. I could not show so well, if even I would try, that venesection is a less dangerous remedy than it is conceived to be; but I can show with some effect that it is a more useful remedy than current opinion gives it credit for. This, which is now my task, shall in the main be a simple task of facts, each fact as distinctively related as if it were the narrative of an experiment.

### Effect of Blood-letting for Cure of Heat-Shock.

An early impression has probably held me more closely than most medical men of my time to the practice of venesection. The impression to me is as vivid now as it was when it was first made, thirty-six years ago. Into the garden of a practitioner of medicine, who gave me some of my earliest lessons in the art of physic, there was brought one extremely hot day a man who had been struck down by the sun's heat in the reaping-field. The man was carried by two or three of his comrades, as a dead man might be. He was pale, speechless, unconscious, and rigid. I remember that the stiffness of the man struck me as most remarkable, and filled me with alarm, for when he was set in an arm-chair there was a difficulty of bending him into it. He showed, in fact, what we in this day recognise, through experiment, as spasm from heat; and we are aware now that this means a condition of extreme danger. Without a moment's hesitation as to the practice he should pursue, the surgeon tied up both arms of the man for venesection, and bled from both at the same time. For a brief period there was a feeble flow of blood, then the current came in full stream, filling quickly two pint measures with blood as bright red as if an artery instead of a vein had yielded it. Under this abstraction, the muscles of the man relaxed; he breathed deeply, with a sighing expression; looked round, and then broke the silence by saying to one who was holding a basin, "You're a good 'un!" and from that moment recovered his consciousness. The flow of blood arrested, and a bandage applied, this man got up from his chair, and walked to his home. He positively never came back to report himself, but I met him driving a cart a few days afterwards, sitting on the shaft and smoking his pipe, as well as if he had neither been brought to the gate of death by accident, nor pulled from it by bold and scientific art.

### Effect of Blood-letting for Cure of Mechanical Shock.

While serving a term of apprenticeship with Mr. Henry Hudson (now in practice at Homerton, and still my good friend), I went to see some pony races held at Burrow Hill, a place reputed to be the remains of a Roman camp, well known to the antiquarians. The racecourse was flanked all round on its outside by a rising ground, once an embankment or rampart, and on this several hundred spectators had gathered together. During one of the races, while the ponies were running their final heat, a woman, about forty-five years of age, rushed down the embankment to pull back a child that she considered was in danger. The impetus she got, in the quick descent, prevented her from stopping at the foot of the embankment, and projected her into the course just as the riders were passing the spot. She was knocked down, and was so stunned that when she was picked up she was at first considered to be lifeless. In a little time it was detected that she was breathing, and so she was conveyed from the hill to an inn in the village of Burrow, where Mr. Hudson, taking me in company, attended her. She was put to bed immovable and unconscious, with her eyes fixed, and her breathing deep, noisy, and slow. I recall perfectly the observation that the pulse was all but imperceptible at the wrist, and that the veins of the arm filled very slowly. As was then the orthodox practice, the fillet was applied; a vein was opened; blood, which but trickled at first, began to flow as the hand of the patient was pressed and moved; slowly the stream of blood increased, and at length came full. When thus the previously stagnant blood began to move, and the heart found relief from the pressure to which it had been subjected, the phenomena of active life recommenced. The deep breathing became shorter and quicker, the pulse at the wrist rose, the muscles began to move under a half-conscious volition, and before we retired the patient was so far recovered as to be able to swallow liquid food. We left her feeling she was safe, and we were justified in our hopes; for, although she had lost a pint and a half of blood at least, she suffered nothing from the loss of it, and in a day or two returned to her home and to her ordinary duties, perfectly restored.

### Effect of Blood-letting for the Cure of Lightning-Shock.

Our forefathers were satisfied as to the good effects of blood-letting in cases of lightning-shock. Dr. Macaulay, an able naval surgeon of last century education, has left on record the history of a man who, struck down on deck by lightning, and being entirely insensible, was brought to consciousness and recovery by the rapid abstraction of over forty ounces of blood. I have not myself had the opportunity of treating a case of lightning-shock in the human subject, but an experience of another kind bears directly upon the value of the remedy in such cases. In experimenting with the great induction coil at the Polytechnic, I tried to kill large animals—sheep—painlessly, by an electrical discharge derived from a Leyden battery set "in cascade," and presenting ninety-six feet of surface. This shock is identical with the fatal intense shock of lightning, and by passing it once through the body of a sheep, it rendered the animal instantaneously unconscious—to all appearance dead, and, as I found by one line of experiment, actually dead, if nothing were done to the animal. But in another line of experiment the animals so soon as they were stricken were removed by the butcher, and were subjected to division of the vessels of the neck in the usual manner of killing in the slaughter-house. At first blood flowed very slowly from the operation, but in a short time the current became freer, and, as it became free, the phenomena of active life, previously suspended in the animals, returned. There was return of consciousness, of motion, of struggle for liberty, and all those proofs of life that an animal passes through, previous to convulsion, when it is submitted to slaughter without shock.

If we connect the experience of those of our predecessors who have successfully employed blood-letting for the cure of lightning-stroke with the experimental facts I have here adduced, the inference is, I think, as fair as inference can be, that blood-letting is the remedy for the effects of the shock of lightning. Thus in their bearing the experiment, equally with the experience, becomes of clinical value.

### Effect of Blood-letting for the Cure of Sudden Pneumonic Congestion.

In the year 1847 I attended, for the late Mr. T. Brown, of Saffron Walden, Mr. C., a gentleman farmer, who then lived at the village of Elmdon, and who is still living. This gentleman, while suffering from a severe catarrh, or, as it was called, an "influenza," was suddenly exposed to an extreme degree of cold, which prostrated him at once. As the freedom of the circulation became restored upon reaction, the influx of blood into the paralysed vessels of the minute circulation led to that stage of congestion which in my lecture on the influence of extreme cold on the peripheral surface (*Medical Times and Gazette* for May 11, 1867) I have placed as the third stage in the process of recovery from the local action of cold. In this gentleman both lungs became suddenly and universally congested, rendering his death imminent. I went to him in the night, and had soon the pleasure of being joined by Dr. Paget, of Cambridge, who had been specially sent for. The patient

was breathing with great difficulty; his face was bronzed; his mind a little beclouded; his pulse hard. There was general dulness of percussion over the thorax, and commencing fine crepitation in the posterior part of both lungs. Now and then, as I sat watching him, waiting for Dr. Paget's arrival, I had noticed that with a frequent accession of laboured breathing there was a convulsive action, short in duration, but well defined. Dr. Paget, appreciating the extreme danger of the patient, suggested, as the most instant remedy, a free venesection. At once, and while he remained, I carried out the practice liberally, and I hesitate not to say with immediate result for the benefit of the sufferer. Practically this sick man was placed immediately, by the remedial art, out of the extreme danger in which he was cast. "Take a little more; I am so relieved by it," was his observation, as I sought Dr. Paget's indication, from the pulse, when I was to stop the flow of blood; and with that wish we thought it reasonable to comply. The relief to the oppressed breathing was direct; the face lost its bronzed hue as the better aërated blood made its way round the body; the extreme tension of the pulse ceased; the secretions were set at liberty; and the progress of the patient to recovery was as satisfactory as it was rapid. I had the pleasure of seeing Mr. C. a short time since, and of hearing from him an often repeated statement of his gratitude for the prompt skill that saved his life.

*(To be continued.)*

## CASES OF OBSCURE NERVE DISORDER.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

*Case* 1.—*Profound Cerebral Paralysis—Return of Consciousness in a few hours—Bronchial Catarrh, present from the first, persisting—Amendment—Relapse, attended with High Temperature—Slow Recovery.*

S. C., AGED thirty-four, porter on Great Western Railway, admitted February 3, 1874, about 2 a.m. He was then perfectly insensible; his pupils were quite unaffected by light, and his orbicularis palpebrarum by touching the eye; his limbs were quite relaxed, and fell, when raised, as inert masses; his breathing was much obstructed and stertorous; his pulse slowish, full and bounding; his face was pale. A little blood, not more than one ounce, was taken by cupping from the back of the neck, and he was well purged with an enema containing croton oil. No immediate change was produced, but in the course of the morning he became quite rational and conscious, and was so when I saw him about 2 p.m. He was very stupid for some time, and did not know where he was until 9 a.m. He said that he felt very queer still, his head was giddy, and he had pain across the loins. His temperature was 100·4°; his pulse 105, large and of good force; tongue clean; face rather pale. Urine not albuminous, sp. gr. 1017. He said that he had not felt well the last fourteen days; had complained of his head, which I found rather tender when tapped. He declared he had not drank much; had never had a fit. He felt himself getting queer, sat down, and lost his senses. Denied having ever had chancres or gonorrhœa. The probability of the seizure having been epileptic was noted, and he was ordered pot. iod. gr. iv., mist. camph. ℥j. ter die, with hyd. chl. gr. ij., ext. coloc. co. gr. v. in pil. ij. Diet: Broth, milk, two eggs.

The following day the eyes were examined with the ophthalmoscope. The surface of the discs was rather red and obscured; the margins were well defined. There was no fresh symptom, no paralysis, but his head felt very queer. He was giddy if he stooped. Temperature 100·8°. Appetite very bad; tongue clean, its edges indented; bowels open. At times he was sweating; at others was cold. Dry rhonchi were heard in the right back; at the lower left the breathing was weak and harsh, and attended with obscure crepitation. The chief feature of a tracing taken this day was marked want of uniformity in the successive beats. The rise was sometimes high, sometimes low; the top mostly sharp, but sometimes rather flattened. There was no dicrotism. Ordered—Quin. disulph. gr. ij., acid. nitrici ♏ij., spt. chlorof. ♏x., aq. ℥j. quater die.

February 3.—Temperature 99·4°; pulse 90. He feels very weak; asks for wine. Port ℥iv.

6th.—Feels better. His head throbs now and then, but not so much as it did by a good deal. If he reads a little the lines look misty and double.

7th.—Head feels stronger and sight clearer; coughs a good deal; temperature 101·1°; pulse 100, smaller and more compressible; tracing much more uniform—rise moderate, top blunt, some dicrotism. He complains of sharp pain in the right lower front and adjacent side catching him when he coughs or breathes deep. There is weak breathing in both backs, with some obscure crepitation, especially at the bases, and the resonance is decidedly impaired at the lower thirds.

9th.—Temperature 100·6°; pulse 100. Pain much relieved by sinapisms, but still present in deep inspiration. Sputa watery, with dark-tinged patches here and there, giving the whole a darkish brown colour. No increase of dulness in right back.

12th.—Doing well; expectoration mucous; pulse 80; temperature 100·4°. Mist. ammon. cum senegâ ℥j. 4tis horis.

14th.—Temperature 101·1°; appetite not good, prefers beef-tea to meat; skin sweating; pulse 88, distinct. He gives the following statement respecting his seizure:—He had been feeling giddy for fourteen days, after lifting a weight; when he rose up his head would swim for a time. The day before the night of his attack he had been at work at the station from 1 p.m. to midnight; he had felt poorly, and had taken some brandy twice; was going home when he became insensible. The last thing he remembers was getting another porter to take his list to the office. He did this because he found himself getting worse—more giddy and stupid.

24th.—Appetite better; eating meat. Complains only of pain in the right calf. It is very lax and flabby, and not inflamed apparently; but one spot about the size of a florin about the inner part is very tender. The dorsalis pedis artery beats distinctly.

26th.—The pain in the calf has been removed by four leeches, but he has got more cough and expectoration. Good full breathing in left back; pretty good, but less full, in right. Pulse jerky, quick, 106, very compressible, and weak. Temperature 104·2°. Urine of medium colour, not albuminous. Ammon. carb. gr. iv., tinct. cinch. ℥j., tinct. opii ♏iv., dec. cinch. ℥j., 4tis horis.

27th.—Coughed all night, and this morning spat up a notable amount of blood. Pulse 90, soft; temperature 100·9°. He has had a pricking pain for four or five days under the right clavicle; it is gone now since he spat up blood. No appetite. Simple diet—milk, eggs, beef-tea.

28th.—Much cough all night. Expectoration muco-watery, rather tinged. Pulse 110; temperature 104·7°. Both backs resonant; breathing weaker in right than in left. Linctus morphiæ; sinapism to upper sternum.

March 2.—Temperature 102·9°; a good deal of muco-watery expectoration.

3rd.—Pulse 78; temperature 100·4°.

5th.—Much better; temperature 99·8°.

9th.—Doing well; temperature 99°.

12th.—Temperature 98·4°.

16th.—Temperature 98·4°. No expectoration; very little cough. Good breathing throughout both backs. Does not care for meat, though when at home he eats meat every day. Ferri carb. sacch. gr. xv. ter die.

19th.—Begins to get up now; discs in same state as before. None of his relatives have suffered with fits, except his grandfather, who died in advanced life in one. Two of his sisters, however, and his mother have died phthisical.

26th.—Going on quite well—only is very weak.

He left the hospital soon after, but came as an out-patient on April 6. He was then fairly well, according to his own account, but perspired a good deal, and sometimes had chills after; he had had also some headache and epistaxis. Temperature 37·4° (99·3°). He looked pallid. His pulse was remarkably quick—150, 150, 140, 130, in four separate counts, he being then in the standing posture; the artery felt full, and the beat rather forcible. His bark and ammonia mixture was changed for ferri ammon. citratis gr. x., ammon. carb. gr. iv., tinct. calumb. ℥ss., tinct. nucis vomicæ ♏x., aq. ℥j., ter die; and ol. morrh. ℥ij. in dies.

April 13.—Pulse 135, of tolerable size and force, while standing; after lying down five minutes it was 114. Temperature 37·4° (99·3°). Nothing amiss in heart or lungs.

21st.—Came down to my house. Pulse 90. Tracing shows an absence of uniformity in the beats: some are quite normal, others approach nearly to the flat top.

27th.—Pulse rapid again. Seen at hospital. He felt poorly,

and had some epistaxis a few days ago. Acidi nitrici ℥iij., inf. cascarill. ℥j., ter die.

May 28.—Has just returned from Walton, where he improved a good deal. He looks well, but pulse is rapid (about 120), large, and of good force. No fits or cerebral disorder.

June 15.—Is at work, gaining strength.

*Remarks.*—The pathology of this case is obscure. We may, however, clear the ground to some extent by remarking that the existence of any gross lesion, as clot, embolism, softening, or tumour, seems highly improbable. Had the coma resulted from any of these it could hardly have been so temporary; and some other cerebral symptom—pain in the head, vomiting, palsy, optic neuritis, or the like—would surely have been noted. A tumour, it is true, may lie in the brain and make no sign; but if we admit the coma to have been the result of an epileptic attack provoked by a tumour, we can scarcely think that other fits or other signs of its perturbing influence would not have shown themselves. The temporary profound coma might be best explained on the assumption that the man had undergone an epileptic attack, but there is no evidence at all that he had had one, and both his previous and subsequent and his family history make it improbable. Besides, the attack did not come on with the suddenness of epilepsy: the patient had experienced some giddiness for fourteen days before his seizure, and shortly before he was taken was so far conscious of his failing power that he gave his list to another man to take to the office. Then the facts of the existence of bronchial catarrh at the time of his admission, of its recurrence with hæmoptysis and high temperature three weeks later, of the temperature being above the normal on seven days after his admission, and of the great prostration which continued so long with tendency to great rapidity of pulse, deserve to be taken into account. These point to the existence of a disorder of febrile and catarrhal nature; while the remarkable nerve collapse, which gives its chief interest to the case, attests the extent to which the great centres were involved. No ordinary malady with which I am acquainted is likely to present such phenomena, except influenzal catarrh. In undoubted instances of this disorder, well-marked symptoms of impaired cerebral power are not unfrequent, and this certainly adds to the probability that still graver effects may occasionally ensue. Yet I do not hold this diagnosis as a positive opinion, for the occurrence of a decided epileptic attack would contribute materially to sustain the other view. Be the case, however, one of epilepsy, or of influenzal cerebral paresis, it may well be cited with those of "*congestion apoplectiforme cérébrale*," described by Trousseau as affording proof that an apoplectic condition may be quite independent of any actual lesion, and depend solely on an unknown modification of the cerebral tissue. Passing over the hypothesis, which now seems to find no great acceptance, that the loss of power is the result of arterial spasm, such cases seem to establish the view that functional paralysis must be admitted as a pathological state. If such be the case, it is clear that careful consideration is requisite before we employ measures which must still further depress the already deficient nerve-power. I suspect very much that diffusible stimulants were more needed than purging in the above case.

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CASES OF

## HÆMORRHAGE FROM THE PALM OF THE HAND, TREATED BY PRESSURE.

By E. L. HUSSEY,

Senior Surgeon to the Radcliffe Infirmary, Oxford.

*Case* 1.—A farm labourer, forty-eight years of age, living at Dorchester, about nine miles from Oxford, was admitted into the Radcliffe Infirmary under my care on September 11, 1868, on account of sudden and profuse loss of blood from a swelling in the palm of the left hand.

*History.*—The man is left handed. About seven years ago, after some hard work, he found a swelling in the palm of his left hand. As it continued to increase in size, he showed it at different times to Mr. Byass, of Dorchester, and his assistants. They informed him of the serious nature of the case, and of the necessity for treatment, telling him that he might some day bleed to death from it. Mr. Byass mentioned to me in conversation that he had such a case under observation. About twelve months ago the swelling was punctured by a practitioner in the neighbourhood; some slight flow of blood followed the puncture. The wound healed favourably, but the swelling grew more rapidly in size afterwards. The patient described it as becoming raised, and even pendulous; the apex of the swelling became softer. His fingers became permanently flexed, and he had a difficulty in opening the hand enough to hold his tools for work in the fields.

On the morning of admission, after fomenting the hand with flannel and warm water, he tried to straighten the fingers forcibly. The swelling burst, and before he could obtain help, he lost, by his own estimate, about three quarts of bright florid blood. The friends about him tied a cord round his arm, and sent for Mr. Byass. Mr. Harris, Mr. Byass's assistant, who was well acquainted with the nature of the case, attended at once. A thick compress of lint was placed in the palm, and a bandage applied round the hand and wrist, and a tourniquet buckled on the arm above the elbow, with the pad over the brachial artery. The patient was then sent in a cart to the Infirmary. Upon admission he was sent to bed, with his hand and arm raised on a pillow.

The next day I saw him. Upon examining the patient, and hearing the history, I formed the opinion that the swelling was an aneurism of the palmar arch, and I determined to try the effect of pressure. The bandage, which had become hard and dry, was cut away, leaving the compress adherent to the palm. The thumb and fingers were bandaged separately with narrow strips of calico, carried evenly from their extremities upwards toward the hand. These were fixed, with the fingers flexed upon the hand, and firm pressure made by carrying several turns of a calico roller over the compress and round the hand. Compresses of lint, about four inches in length, were laid along the line of the radial and ulnar arteries, and secured by a roller bound firmly round the wrist and forearm, as far as the bend of the elbow. The hand was placed across the chest, and the limb confined in a sling, the forearm being flexed somewhat beyond a right angle. The man was ordered to remain in bed, and directions were given to the nurse that he was not to be raised from the horizontal position, and that the arm was not to be moved, nor the forearm straightened, for any purpose.

On the 17th some slight amount of blood escaped from under the dressings, but not enough to make me think it necessary to remove them for the purpose of examining the wound.

The dressings were all removed on the 21st. A compress of lint was again laid on the opening in the palm, and fresh bandages applied to the fingers, hand, and forearm, making firm and uniform pressure as before. These were allowed to remain for about ten days. The discharge became purulent, and was for some time mixed with clots of putrid blood. The bandages were all removed, and a piece of linen rag with simple cerate was left on the wound. The pressure was discontinued, and the man was allowed to move about the ward with his arm in a sling. By degrees the suppuration ceased, and the man left the Infirmary on October 28, with the wound nearly healed.

On July 20, 1872, he came to the Infirmary, and I saw him. A very small scar, not so large as a split pea, can be seen in the palm of the hand. The skin moves easily over the palmar fascia, and the tendons play freely. The power of flexion and extension is perfect. The man says the arm is stronger than the other. Both arteries can be felt at the wrist, but the radial is fuller than the ulnar.

*Case* 2.—A shoemaker, fifty years of age, was admitted into the Radcliffe Infirmary under my care on February 27, 1872, having lost a large quantity of blood from a deep wound recently inflicted in the palm of his left hand. I was in the ward at the time, and saw the man immediately on admission.

The wound was in the middle of the palm, about half an inch in length, in the line of the metacarpal bones, passing obliquely through the skin and palmar fascia. It was caused by his accidentally sticking his knife into it when seated at his work. A profuse loss of blood followed immediately—to the amount, he said, of two quarts. A fellow-workman tied some handkerchiefs round the hand, and the man came to the Infirmary, a distance of about two miles.

Having laid the man down in the horizontal position, the cloths, which were saturated with blood, were removed, so that I could examine the wound. I had no doubt that the injury was a puncture or division of the palmar arch, and I determined to make use of pressure, which had been so successful in the former case. A compress of lint was placed on the wound in the palm; narrow bandages were wound round the

thumb and fingers separately, and also round the hand. Compresses were laid along the line of the radial and ulnar arteries, and a bandage carried round the wrist and forearm up to the bend of the elbow; firm and uniform pressure being made over the fingers, hand, and forearm. The forearm was flexed upon the arm to rather more than a right angle, and confined in a sling across the chest. The patient was placed in bed, with directions that he should not be raised nor the arm moved from the position in which it was placed.

On March 4, the bandages having become slack were removed, and the compress taken from the wound without any loss of blood. A fresh compress of lint was placed upon the wound in the palm, and others along the radial and ulnar arteries, and the bandages reapplied, in the same manner as before, over the fingers, hand, and forearm. The forearm, flexed to a right angle, replaced in a sling, and the same directions continued for keeping the arm at rest. The wound healed without suppuration. The man left the Infirmary on March 13, and soon afterwards returned to his regular work as a shoemaker.

In June, 1874, Dr. Spencer, the medical officer of the sick club of which the patient is a member, saw him. He tells me that both arteries can be felt at the wrist; the ulnar, he thinks, beats more forcibly than the radial. The man has continued at his work with the free use of his hand.

*Remarks.*—In the first of these cases, in the absence of accurate knowledge of the exact nature of the aneurismal swelling and its anatomical relations, an attempt to reach the source of hæmorrhage by operation in the palm was not one likely to be attended with success. In the other case, where the patient came under notice at an earlier period after the injury, a less unfavourable case presented itself for an attempt to tie the wounded vessel at the seat of injury.

It cannot be said that wounds of the palmar arch form an exception to the known rule that in a case of hæmorrhage from an artery of sufficient size to require a ligature, both ends of the divided vessel should, in all cases where possible, be tied at the seat of injury. But it is an almost insuperable objection to an operation for such a purpose, even in a healthy condition of the palm, that it involves a tedious and difficult dissection among parts which cannot be divided or separated without risk of permanent injury.

The cases which have been reported show that stopping the current of blood by ligature of the trunks supplying the palmar arches—whether the radial and ulnar at the wrist, or the brachial at a greater distance—has not secured the patient from a return of hæmorrhage.

These two cases are offered to the readers as instances of the success of pressure carefully and efficiently applied. The object of the pressure is to check the force of the whole circulation in the limb; not only the current through the larger arterial trunks—the radial, ulnar, and interosseous, in the forearm and at the wrist—but also through the smaller vessels and capillaries in the hand and fingers, until the injury is repaired. This is not done effectually unless the pressure is made equally on the distal side of the palmar arches, beyond the aneurism or other seat of injury.

Oxford.

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FORMULÆ FOR THE TROUBLESOME COUGH OF PHTHISIS.—The following are in use in the New York Charity Hospital:—1. ℞. Potass. bromid., pot. chlorat., ammon. muriat., āā ʒjss.; syrup. tolut. ʒjv.—a tablespoonful every two or three hours. 2. ℞. Tr. opii camph. ʒj.; træ. bellad. ʒj.; træ. hyoscy. ʒij.; spt. lavand. co. ʒj.—ten drops on sugar every hour until the cough is relieved.—*Boston Journal*, July 2.

ENLARGED PROSTATE.—In the *New York Medical Journal* for July, Dr. Van Buren contributes a highly interesting paper on this subject, the purport of which is to recommend that cases of enlarged prostate should, from the beginning, be treated by catheterism employed by the patient when he has been sufficiently taught. The catheter should be passed from four to five times a day, and the bladder may have to be washed out; but the patient will be a great gainer even as regards time saved, and especially in absence of suffering and prevention of retention. The object is to entirely supersede the efforts made by the bladder to overcome the obstruction, and to prevent the consequent suffering and irritation. The patient, however reluctant to adopt the practice at first, soon is able to follow it, and his life is not only much prolonged, but is passed in comparative comfort.

# FORTY-SECOND MEETING
OF THE
# BRITISH MEDICAL ASSOCIATION,

HELD AT NORWICH, AUGUST 11, 12, AND 13, 1874.

## AN ADDRESS
## DELIVERED AT THE OPENING OF THE SECTION OF PUBLIC MEDICINE.

By W. H. MICHAEL, Esq.,
Barrister-at-Law; President of the Section.

THE general practice of medicine is only so far public, as it has been recognised by law and partially regulated by enactment. Although the Legislature has not surrounded it by safeguards, like some other professions, yet no one can, unless conforming to certain prescribed standards, use any title importing a qualification to exercise the functions of a member of the medical profession. Yet, in this direction much remains to be desired and accomplished; and there has been for many years a growing conviction that the best safeguard which could be afforded to the community for a proper exercise of the healing art, would be to substitute for the examinations of the many qualifying bodies now granting licences, one examination, in which these bodies might all be fairly represented; and that this should be the portal through which every intending practitioner should enter upon the duties and responsibilities of the medical profession. This would in no way detract from, but rather increase, the desire to add to a mere qualifying examination those diplomas or degrees granted by universities or learned bodies, bespeaking special culture and the possession of scientific knowledge as additional guarantees and helps to future successful practice.

Public medicine, which may be taken to include any medical service paid for out of funds raised by taxation or rates, must of necessity have to deal with other phases of medical practice than those within the sphere of the private medical practitioner so-called. As regards the curative branch of the art, it is to be exercised on masses of people more or less closely aggregated together, as in the Army and Navy Medical Services; and, whether in these or in civil life, the science of preventing disease and death is an integral, and, in many cases, the most anxious and important, part of devolved duty. It is true that it requires no higher art and no different exercise of it to treat diseases, which must in every case be individual, whether they occur in a hospital, in a ship, in the family, or in the camp. But the other function of public medicine—that of prevention—is essentially different; requiring other knowledge, and calling into play other faculties than those employed in the cure of disease. Upon the true and right possession and use of these has often in the past, and must often again in the future, depend a nation's welfare and a nation's weal; for both armies and communities have often to acknowledge that public health is public wealth and public safety. Securities should, therefore, be taken by the State, when medicine is employed for State purposes, that the instrument used is competent; and this must be judged by the competency of the hand using it. A State examination, as the necessary preliminary to holding any public medical appointment, and a board constituted for the express purpose of, so far as examination by a board can do so, providing for efficiency, should confer a qualification in State Medicine so-called, available for an appointment in the public medical service. To be an efficient officer of health, a poor-law union surgeon, or a surgeon in the Army or Navy Medical Service, requires the same qualifications, and the possession of the same qualities, for the right discharge of much the same series of duties.

There are diversities of taste which would naturally induce choice of one or other of these branches of service in preference to others. To a large extent, success in any would have been equal in others, as indicating the presence of those qualities of observation, self-reliance, and careful reasoning, which make up the sum of competency and capacity. Age will bring with time its lessons of self-experience to aid the knowledge gained from others; but, in such a scheme as is here contemplated, the entry into manhood without any necessary previous following of prescribed curricula, if satisfactory acquaintance with hygiene and allied sciences be evinced upon due examina-

tion, should be the sufficient passport for admission into public medical service.

At present, while there is a special examination for the Army and Navy Medical Services, there is no test for fitness to fill the post of medical officer of health, rendered obligatory as to appointment on every sanitary authority under the Public Health Act (1872). It is probable that, were any strict test made essential before taking this office at the present time, considerable difficulty would arise—first, because of the comparative novelty of the service; and, secondly, because the pittance in many cases attached to the performance of the duties is so small as to be likely to deter many candidates from submitting to a severe examination as to fitness for the office.

But if, in the future, the duties attached to the office of medical officer of health are to be in every case realities, there must be such guarantees for their discharge as would alone be afforded by an adequate test of competency. To require that every member of the profession, entering it after a certain date, and desiring an office of public medicine, should possess a certificate from a State Medicine Examining Board, would inflict no hardship, and would be the first step towards the creation of a skilled staff of medical officers of health to meet the exigencies of efficient health-preservation. It is possible that there may be, among the great mass of the medical profession, a sufficient number of its members who have already devoted such attention to questions of public health as to fit them for the calls made upon their skill by the present *régime*, but it is hardly to be expected, without very considerable preparation, that a profound insight into the most mysterious of Nature's locked-up secrets can have been vouchsafed to every aspirant for employment.

At present, there is no widespread or deep belief in the public mind as to the possibility of any such skilled analysis as shall not only trace disease to its remote causes, but place in the hands of experts the means of warding off its visitations; at least, there is not such a belief as makes ratepayers willing that their representatives should expend money raised from them by taxation upon what are called sanitary improvements, and bitter hostility is constantly expressed and shown to action in this direction. It is about as difficult to make people healthy by Act of Parliament as it is by the same means to hope to secure to them education, religion, or morality. I have reluctantly come to the conclusion that compulsory legislation must not be too hastily or peremptorily forced on an unwilling community. It is only by co-operation of all the members of the State that success can be secured; and this must be through gradual and progressive teaching, both by precept and example, spread over the present and the immediate future. It must be shown by unmistakable examples over and over again repeated that drainage of the subsoil of houses materially lessens, if it do not altogether destroy, tuberculoid disease, before owners of small property will be compelled by public opinion to replace the sodden floors and foundations of inhabited cottages which now place a premium on the prevalence of this most formidable class of disease. Long extended experience of immunity from many forms of chest disease, where the air is no longer loaded with the products of combustion, may force even manufacturers to avoid poisoning the atmosphere; and the claims of humanity may even supersede the necessities of commerce, and allow health-giving streams of pure water to take the place of pollution and poison which now flow down our river-beds. It will take long years of patient insistence to make it universally admitted that the presence of pure air in dwellings is as essential as food and clothing, and that sound health can only be maintained by a copious supply of pure water. The removal of human excreta from man's dwelling-places will over and over again, in the future as in the past, save thousands and tens of thousands of lives, that would have been otherwise self-destroyed; and the diminished death-rates, the prolonged life-space, in districts where sanitary measures have been efficiently carried out, must preach in small still voice, persistently, and long before the voice is heard and universally acknowledged; but progress is certain, though slow, and must be patiently waited for.

Above all, all those who desire the progress of public medicine as a science must avoid either extenuation of our failures or excess of our commendations. We have much to regret in these matters in the past, and may learn lessons from our mistakes for our future guidance. To insist on the comparison of death-rates alone as testing the health of one district against another, where the circumstances might vastly differ, would be obviously one of the errors to be deprecated; but to show that works of drainage and water-supply have uniformly diminished the death-rate of a given district, thus testing it by itself in its present and its past, is a comparison of a value and moment which cannot be impeached.

There is, however, a misconception on the part of some of the friends of sanitary effort, tending in a direction more dangerous to progress than absolute opposition. It is asserted as probable that by preventive medicine we may indeed save life, but that we save only the lowest, least valuable, and most imbecile form of it, and that this tends to the degeneration while we add to the number of the population. Nothing could be more fallacious, or, if unanswered, more completely, while insidiously, check and paralyse sanitary action. It is attributed to the late illustrious Professor Liebig that he enunciated the axiom, that "disease begins when resistance ends": if so, this sentence contains the germ of the error into which writers like Kingsley and Herbert Spencer have fallen when writing on the subject of public health. Disease is of the very essence of vitality, and often the true exponent of the measure of vital resistance; for when resistance ends, it is death, not disease, which supervenes. Kingsley, in "Health and Education" (1874), p. 7, says: "Everything which makes it more easy to live, every sanitary reform, prevention of pestilence, medical discovery, amelioration of climate, drainage of soil, improvement in dwelling-houses, workhouses, gaols; every reformatory school, every hospital, every cure of drunkenness, every influence, in short, which has—so I am told—increased the average length of life in these islands by nearly one-third, since the first establishment of life-insurances, one hundred and fifty years ago; every influence of this kind, I say, saves persons alive who would otherwise have died; and the great majority of these will be, even in surgical and zymotic cases, those of least resisting power, who are thus preserved to produce in time a still less powerful progeny." And at page 8 he says: "But it is palpable that in so doing we must, year by year, preserve a large percentage of weakly persons, who, marrying freely in their own class, *must produce weaker children, and they weaker children still.*" So also the same idea is worked out in Herbert Spencer's "Study of Sociology" (2nd edit., pp. 339-343). From the statements therein contained, the author draws the two following corollaries: first, that from the sanitary measures which he has enunciated, population increases at a greater rate than it would otherwise have done, so subjecting all persons to certain other destroying agencies in more intense forms; secondly, that by intermarriage of the feebler who now survive, with the stronger who would otherwise have alone survived, *the general constitution is brought down* to the level of strength required to meet these more favourable conditions. That is to say, there by-and-by arises a state of things under which a general decrease in the power of withstanding this mitigated destroying cause, and a general increase in the activity of other destroying causes, consequent on greater numbers, bring mortality and fertility into the same relation as before; there is a somewhat larger number of a somewhat weaker race. And he goes on to say: "It is supposed in the Legislature, and by the public at large, that if by measures taken *a certain number of deaths by disease have been prevented*, so much pure benefit has been secured. But it is not so. In any case there is a set-off from the benefits; and if such measures are greatly multiplied, the deductions may eat up the benefit entirely, and leave an injury in its place." The author sees the difficulty into which the foregoing argument, logically carried out, would lead him, and adds, "Where such measures" (sanitary legislation) "ought to stop is a question that may be left open." One would have thought that, if the premises of the writer were correct, there was but one corollary to be drawn from them, and that all sanitary legislation and sanitary efforts were pure mistakes. But the error underlying these statements, and similar ones continually spoken and written, arise from the assumption that it is only by diminishing mortality that public preventive medicine shows its influence; whereas, in truth, this is but the smallest part of its action. There are at work from the first moment of birth agencies tending to weaken and eventually to destroy life. These are directed equally against the weak and the strong: the former succumb; the latter survive, but weakened and impoverished. Remove or diminish these pernicious influences, and you not only save life where otherwise it would have perished, but you strengthen the strong by removing what diminishes their strength. A rough numerical illustration will show that sanitary measures, instead of tending

to weaken the race, by saving weaklier scions to propagate their weakness, give to the world a stock of strong men such as it has never before known. Let us take one hundred human beings divided into tens, with vital energy represented by numbers varying in decades; thus, 10 at a strength of resistance represented by 100, 10 at 90, and so on to the end of the scale. Let us suppose malarious or morbific influences represented by the number 20; we shall then have the vital power diminished thus:—

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Total vital energy . | 100 | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 |
| Reduced (—20) . . | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 | 0 | — |

Could we by sanitary measures diminish the elements noxious to vitality from 20 to 10, we should have gained 10 lives, and these not the lowest in the scale, but represented by a higher power of life than any before recorded in our table; for our 100 would at first be but diminished by 10 and our record of power of life would be:—

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Total vital energy . | 100 | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 |
| Reduced (—10) . . | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 | 0 |

The ten lives gained are those represented by the power 90 of strength; and, according to the reasoning upon which we are commenting, sanitary measures would tend to perpetuate a race endowed with greater power and vitality than that of any preceding age. Besides this, even testing the question of mortality alone, and for the moment overlooking the depreciation in vital energy caused by living in conditions unfavourable to health, it must be borne in mind that it is not the weak, the decrepit, and the infirm who are always the victims to zymotic or preventable diseases, seeing that there are whole classes of these diseases which specially select for their victims those who are in the prime of life, the strong, the active, and the robust. To save these at least, if the writer's theory were correct, would be worthy of the best efforts of public medicine.

It is affirmed that these results can only be obtained by the active co-operation of the whole medical profession. To prevent the spread of disease, requires the earliest intimation of its presence. Quarterly returns of the diseases of a district, even when obtainable, seem but a mockery. For any useful information they can afford, they are much the same as tendering the key of the stable long after the horse has been not only stolen, but slaughtered. There are no available means provided by the Legislature by which the newly appointed medical officer of health can know anything of the prevalence of disease in his district in time to investigate its causes and apply appropriate means to check its extension and to mitigate its severity. In default of these, are we at liberty to assume that he may confidently calculate on the help of his medical brethren in private practice? Universal consent has allowed to the medical profession a high place in the annals of philanthropy and benevolence. They may fairly assert that the members of no other profession surpass them in self-denying and laborious efforts. Can it be expected of them that, unpaid, their services unrecognised, and their aims often misrepresented, they will use all their energy and power to prevent the occurrence of those diseases the cure of which now procures for them their means of livelihood? It is a supreme test. But, at any cost, judging the future from the past, in which the medical profession has not been found wanting, the issue is not doubtful, or the answer an uncertain one. Those who are ready at all times to jeopardise their lives for the good of others will be found ready to make further sacrifices, if need be, in order that the State shall not suffer, and that humanity may be the gainer.

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Compulsory Vaccination.—By the Public Health (Ireland) Act, 1874, it is enacted that if any registrar or other officer appointed to enforce the provisions of the Acts relating to vaccination in Ireland shall give information in writing to a justice of the peace that he has reason to believe that any child under the age of fourteen years has not been successfully vaccinated, and that he has given notice to the father or mother or person having the care, nurture, or custody of such child to have him or her vaccinated, and that it has been disregarded, such father or mother or person shall be summoned, and may be ordered to have vaccination performed within a certain time, and be liable in case of default, unless he can show some reasonable ground, to a penalty not exceeding twenty shillings.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## THE MIDDLESEX HOSPITAL.

We saw the following operations performed on a recent visit at the above Hospital. For notes we are indebted to Mr. Arthur Tomes, House-Surgeon.

### NECROSIS OF STUMP TWO MONTHS AFTER AMPUTATION.

(Under the care of Mr. HULKE.)

J. B., a drayman, aged 31, was admitted into Broderip ward on April 15, 1874, having received severe injuries to both legs in an accident with his dray, and in which they were crushed between the latter and a lamp-post. There was found a comminuted fracture of the left tibia in its upper third, and great bruising of the tissues. There was also a deeply lacerated wound in the upper third of the right leg, and great bruising around. The patient was suffering from shock and loss of blood from the wound. Brandy and opium were given.

In a few days a large portion of the bruised tissues on the right leg sloughed. The slough soon separated, leaving a healthy granulating surface as large as the palm of the hand and tibia exposed. The bruised tissues on the left leg also sloughed over the seat of fracture, denuding the bone for a considerable extent, a detached piece of which was removed (one inch and a half square), so that a deep ragged hole was formed, dipping into the centre of the limb. The entire leg was greatly swollen and brawny, and continued so in spite of frequent incisions having been made wherever there was a suspicion of pus. Balsam of Peru was applied to the exposed part of the bone and raw surfaces, carded oakum wherever there was any discharge, and a sulphate of iron lotion on linen rag wherever there was any redness of an erysipelatous nature.

May 5.—There was by this time diffuse purulent œdema upwards and downwards from the wound, and a large slough at outer and back part of leg, no attempt at union, and the patient was becoming rapidly worn out. Accordingly, Mr. Hulke performed a Teale's amputation, under carbolic spray, just above the condyles of the femur. Owing to the thickened and succulent state of the tissues, there was a good deal of bleeding, and the bursa beneath the quadriceps extensor was found to have become converted into an abscess. The wound was dressed on antiseptic principles—carbolised oil on lint, carbolic gauze, and oakum being applied under carbolic spray. In a few days after the operation the edges of the long flap became gangrenous, and eventually the greater part of it sloughed. By the 17th his general condition was greatly improved. Temperature normal. The gangrenous parts had come away, leaving a healthy granulating surface, with the end of the femur in the centre, dry and black. The sore on the right leg was cicatrising fast; six grafts of skin were planted upon it. The stump was also grafted as soon as its surface was sufficiently healthy; a few only of the grafts survived. The patient continued to improve in every respect for several weeks, until the end of the month of June—ninth week,—when the cicatrisation of the stump became first sluggish, and then entirely ceased; the granulations at the same time were less healthy, and, moreover, several abscesses had formed in the thigh above, having sinuses yielding a constant discharge of pus, and apparently communicating with the stump. The end of the bone was still exposed, and there was no disposition for it to be exfoliated or covered in by granulation. Accordingly, Mr. Hulke proposed to remove the necrosed end of the bone, and to get rid of this source of irritation. Ether was given on July 1, the patient struggling very much. A semicircular incision was made transversely across the end of the stump, and a shorter one at right angles to this across the posterior flap; the end of the femur was then exposed fully, and two inches of its length sawn off. The wound was washed out with weak carbolic acid lotion, a few small vessels were tied, strips of lint soaked in carbolic oil stuffed into the wound, and the whole was covered with carbolic dressing. About one inch and a half of the end of the bone was found on examining the removed piece to be necrosed.

July 6.—Patient continues to do well. Flaps look healthier; they were inclined to be sloughy for the first few days after the operation.

### EXCISION OF HIP-JOINT FOR ADVANCED MORBUS COXÆ.

(Under the care of Mr. HULKE.)

E. S., aged 3½, admitted May 3, 1874; a plump little girl, with a diseased right hip-joint, said to be of four months' duration. The signs were well marked. When placed on her back, with the left leg straight, she held the right thigh acutely flexed on the belly, the knee being bent. A sinus existed in the middle of the outer side of the thigh, the remains of an abscess which had opened spontaneously three weeks ago. There was great thickening over the outer side of the joint, and the least movement gave severe pain.

Chloroform was administered, so that the limb might be brought into a proper position and straightened forcibly, and an extension splint (Mr. De Morgan's) applied whilst the patient was anæsthetised; after which an ice-bag was applied to the joint in order to avert any acute inflammatory action which might possibly arise from the force employed.

Considerable apparent shortening of the limb remained. In spite of the perfect rest afforded to the joint by the De Morgan's splint, the discharge and inflammatory action still went on.

July 1.—Ether was administered, and Mr. Hulke made a curved incision, which, on account of the parts being so swollen, was found to be an inch higher than necessary. A large quantity of pus escaped from the joint when it was opened. The head of the femur was removed above the great trochanter; portions of the acetabulum were also removed, being diseased. The cavity itself was found to be perforated. The wound was stuffed with a piece of lint soaked in carbolised oil, and carbolic dressing applied.

Six days after operation: Child sleeps well at night, and does not cry unless touched. A very profuse and fetid discharge from the wound. Temperature 101°.

### AMPUTATION OF THE WRIST-JOINT.

(Under the care of Mr. DE MORGAN.)

H. A., aged 18, was admitted into Forbes ward, April, 1874, for strumous disease of the carpus of left hand of seven months' duration. The patient belongs to a strumous family. Had a sister in the hospital with caries of the os calcis and scaphoid. There was no history of his having received any injury to the hand. He first of all noticed a general painful swelling over the back of the hand. This was painted with iodine. The swelling and pain increased, and in about six weeks an abscess formed over the first metacarpal bone. This was lanced, and a sinus remained, into which some strong caustic was introduced, with a view to destroy the diseased portion of the bone. After this the sinus healed, the swelling nearly subsided, and he thought himself cured.

In three weeks the hand again began to swell; another abscess formed on the opposite side. This was lanced, and more caustic applied. The swelling, etc., continued; fresh abscesses formed, which did not heal. He then came to the hospital.

The arm was placed on a splint, and after he had been in a few days chloroform was given, and some carious bone removed from the ulnar side of the hand. No benefit was derived from this. Abscesses continued to form, leaving unhealthy discharging sinuses, until at last the carpus and metacarpus of wrist-joint became completely disorganised, the tissues covering them swollen, œdematous, and brawny; and Mr. De Morgan proposed an operation—excision or amputation, according to the amount and extent of disease which might be found when the patient was under chloroform. The incisions recommended by Lister for excision of the wrist were made, and the carpal bones were removed; but as the metacarpus and the bones of the forearm were found to be very much involved in the disease, Mr. De Morgan at once amputated through the lower third of the forearm.

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THE PHYLLOXERA.—Notwithstanding the favourable report recently made by M. Dumas on the efficacy of some of the means employed for the destruction of this devastating pest of the vineyards of France, its ravages continue so alarming that the National Assembly has voted the sum of 300,000 fr. as a prize for the inventor of an effectual destructive procedure.


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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

# Medical Times and Gazette.

SATURDAY, AUGUST 29, 1874.


## THE APOTHEOSIS OF THE ATOM.

WIDELY diverse epithets have been applied to Professor Tyndall's presidential address delivered at the Belfast meeting of the British Association for the Advancement of Science. To some minds it is a "magnificent" or a "splendid" oration, while to others, on the contrary, it is little, if anything, short of a "flat blasphemy." And it cannot but be that in judging the address critics will be "biased by their early education," and by the degree to which they differ from or agree with the Professor's views. No one, indeed, will, we imagine, accuse the address of containing much that is new or original; but very few, if any, will be found to deny that it is a most able and striking review of the course of the "ever-renewed and ever-baffled research among the foundations of life." It is true that the view is taken from one standpoint only, and is therefore one-sided; but it is highly effective and interesting, and in some parts of his exposition the Professor rises to eloquence, and even becomes poetical. He began with the Atomic Theory as set forth by Democritus, and the principles enunciated by him, such as—"1. From nothing comes nothing. Nothing that exists can be destroyed. All changes are due to the combination and separation of molecules. 2. Nothing happens by chance. Every occurrence has its cause from which it follows by necessity. 3. The only existing things are the atoms and empty space; all else is mere opinion. 4. The atoms are infinite in number, and infinitely various in form; they strike together, and the lateral motions and whirlings which thus arise are the beginnings of worlds. 5. The varieties of all things depend upon the varieties of their atoms, in number, size, and aggregation. 6. The soul consists of free, smooth, round atoms, like those of fire. These are the most mobile of all. They interpenetrate the whole body, and in their motions the phenomena of life arise."

Empedocles added to the theories of Democritus a shadowing forth of the "survival of the fittest"; then, after Epicurus, the highest knowledge and wisdom of the old days were

summed up by Lucretius in his "De Naturâ Deorum." "The mechanical shock of the atoms being in his view the all-sufficient cause of things, he combats the notion that the constitution of nature has been in any way determined by intelligent design. The interaction of the atoms throughout infinite time rendered all manner of combinations possible. Of these the fit ones persisted, while the unfit ones disappeared. Not after sage deliberation did the atoms station themselves in their right places, nor did they bargain what motions they should assume. From all eternity they have been driven together, and after trying motions and unions of every kind, they fell at length into the arrangements out of which this system of things has been formed. His grand conception of the atoms falling silently through immeasurable ranges of space and time, suggested the nebular hypothesis to Kant, its first propounder. 'If you will apprehend and keep in mind these things, Nature, free at once, and rid of her haughty lords, is seen to do all things spontaneously of herself, without the meddling of the gods.'"

Then came the darkness of the Middle Ages; and, as the Professor quotes from Lord Bacon, "at a time when all human learning had suffered shipwreck, the planks of Aristotleian and Platonic philosophy, as being of a lighter and more inflated substance, were preserved and came down to us, while things more solid," as the science of Democritus, sank, and almost passed into oblivion. Science fled from Christendom and found refuge with the Arabians; and "the doctrine of atoms had to all appearance vanished from discussion." But the Lucretian doctrine was revived and enlarged by Giordano Bruno. "Struck with the problem of the generation and maintenance of organisms, and duly pondering it, he came to the conclusion that Nature in her productions does not imitate the technic of man. Her process is one of unravelling and unfolding. The infinity of forms under which matter appears were not imposed upon it by an external artificer; by its own intrinsic force and virtue it brings these forms forth:" and the doctrine of Atoms was revived, in the seventeenth century, by the Père Gassendi. The Professor then passes in review the teachings of our own contemporaries; the doctrine of the indestructibility of force, as well as of matter; and the teachings of Darwin and of Herbert Spencer; and at last he openly and boldly confesses his own creed. "Whether," he says, "Mr. Darwin does or does not introduce his 'primordial form' by a creative act I do not know. But the question will inevitably be asked, 'How came the form there?' With regard to the diminution of the number of created forms, one does not see that much advantage is gained by it. The anthropomorphism, which it seemed the object of Mr. Darwin to set aside, is as firmly associated with the creation of a few forms as with the creation of a multitude. We need clearness and thoroughness here. Two courses, and two only, are possible. Either let us open our doors freely to the conception of creative acts, or, abandoning them, let us radically change our notions of matter. If we look at matter as pictured by Democritus, and as defined for generations in our scientific text-books, the absolute impossibility of any form of life coming out of it would be sufficient to render any other hypothesis preferable; but the definitions of matter given in our text-books were intended to cover its purely physical and mechanical properties. And taught as we have been to regard these definitions as complete, we naturally and rightly reject the monstrous notion that out of *such* matter any form of life could possibly arise. But are the definitions complete? Everything depends on the answer given to this question. Trace the line of life backwards, and see it approaching more and more to what we call the purely physical condition. We reach at length those organisms which I have compared to drops of oil suspended in a mixture of alcohol and water. We reach the *protogenes* of Häckel, in which we have 'a type distinguishable from a fragment of albumen only by its finely granular character.' Can we pause here? We break a magnet, and find two poles in each of its fragments. We continue the process of breaking, but however small the parts, each carries with it, though enfeebled, the polarity of the whole. And when we can break no longer, we prolong the intellectual vision to the polar molecules. Are we not urged to do *something* similar in the case of life? Is there not a temptation to close to some extent with Lucretius, when he affirms that 'Nature is seen to do all things spontaneously of herself without the meddling of the gods'? or with Bruno, when he declares that matter is not 'that mere empty *capacity* which philosophers have pictured her to be, but the universal mother who brings forth all things as the fruit of her own womb'? The questions here raised are inevitable. They are approaching us with accelerated speed, and it is not a matter of indifference whether they are introduced with reverence or irreverence. Abandoning all disguise, the confession that I feel bound to make before you is that I prolong the vision backward across the boundary of the experimental evidence, and discern in that matter, which we in our ignorance, and notwithstanding our professed reverence for its Creator, have hitherto covered with opprobrium, the promise and potency of every form and quality of life."

This creed, this deification of matter, the Professor couples, however, with considerable qualifications. The origin of these powers of matter is still unexplained; the riddle of the universe is still unsolved; and, as Professor Tyndall himself freely acknowledges, there is a part of man's nature which his creed cannot explain or satisfy,—"there are such things woven into the texture of man, as the feelings of awe, reverence, wonder, and the love of the beautiful, physical and moral, in nature, poetry, and art. There is also that deep-set feeling, which, since the earliest dawn of history, and probably for ages prior to all history, incorporated itself in the religions of the world." And these feelings and wants of man's nature will not rest unrecognised. Science may have "built one great wing of the many-mansioned home which man in his totality demands"; but it is confessedly only one wing that she has built. The Professor "would set forth equally the inexorable advance of man's understanding in the path of knowledge, and the unquestionable claims of his emotional nature, which the understanding can never satisfy." And he closes his address by saying, "The world embraces not only a Newton, but a Shakespeare—not only a Boyle, but a Raphael—not only a Kant, but a Beethoven—not only a Darwin, but a Carlyle. Not in each of these, but in all, is human nature whole. They are not opposed, but supplementary; not mutually exclusive, but reconcilable. And if, still unsatisfied, the human mind, with the yearning of a pilgrim for his distant home, will turn to the mystery from which it has emerged, seeking so to fashion it as to give unity to thought and faith—so long as this is done, not only without intolerance or bigotry of any kind, but with the enlightened recognition that ultimate fixity of conception is here unattainable, and that each succeeding age must be held free to fashion the mystery in accordance with its own needs,—then, in opposition to all the restrictions of Materialism, I would affirm this to be a field for the noblest exercise of what, in contrast with the *knowing* faculties, may be called the *creative* faculties of man."

Not a few will hold not only that the Professor's almost passionate demand for perfect liberty of thought and research, and perfect freedom of discussion in matters of science, is quite unnecessary in these days, but that, on the contrary, the emotional and religious feelings and cravings of man's nature rather need protection against the arrogance and intolerance of science. But, however much we may differ from Professor Tyndall, we may be content here to observe, as has been

stated elsewhere with reference to his address, that "we have the course of human affairs for thousands of years not only not perceptibly influenced by physical knowledge, but rather influencing it, often most prejudicially, often, too, in a way to suggest the idea of chance or intervention. With this fact before him, on the one hand, no devout member of any religion need hesitate to take up a study hitherto so little able to get the upper hand of human affairs and run away with the world. On the other hand, the most ardent and unflinching materialist may learn to suspect that there is something beyond his philosophy, and that, even if, in his theory, all be matter, there is matter not yet within the reach of his present senses."

## PYÆMIA AT NORWICH.

One of the most interesting papers at the late meeting at Norwich was read in the Public Health Section by Dr. Beverley, Assistant-Surgeon to the Norfolk and Norwich Hospital, on the sanitary condition of that hospital. He began with a quotation from that admirable storehouse of information, Dr. Richardson's "Medical History of England," which appeared in the *Medical Times and Gazette* during the year 1864. "Certain operations," says Dr. Richardson, "have been performed at the Norwich Hospital with a success that is almost without parallel, and the reason of this is that the great experiment of the treatment after operations by fresh air, and plenty of it, has been going on systematically from the first. The Norwich surgeons not only acknowledge Nature, but take her as the senior partner of the firm. No wonder they can show an admirable balance-sheet in favour of life after capital operations." Dr. Copeman stated that on two occasions forty cases of stone were operated upon without a single death, once by Martineau, and then by Dalrymple, Crosse, and Norgate in succession, forming, as Dr. Richardson observes, "with one exception, the most successful statistics of lithotomy ever presented to the world." After a discussion as to the causes of this great success, he thus sums up—"If neither the selection of cases, nor the skill of the operators, nor the character of the operations—*i.e.*, median or lateral—have given to the profession of Norwich such a magnificent harvest, and thrown around this hospital so bright a flame, what is the directing cause? Good luck!—there is no such thing below the surface of fact. Good luck simply means in all cases, that some inappreciable cause has been at work, doing what has been done; and in the Norfolk and Norwich Hospital there has been no mythical subtlety, but one great and pervading element of success, not good luck—but good air. When Benjamin Gooch absorbed from Dr. Hunter that simple lesson about the necessity of having free ventilation and plenty of cubic space for each patient, he achieved half the success which was to come. When he applied the lesson, he, seconded by his able followers, achieved the rest."

Now, the hospital to which these eulogies were applied was in the simple form of H. But the vicious principle of economy of space had prescribed a multitude of additions, which had clustered around the once unencumbered limbs of the H. A museum, with dead-house and appurtenances, a board-room, chapel, physician's and surgeon's room, besides new wards, had all been crowded round the H, impeding ventilation, and defiling the air.

The ill effects of these encumbrances had been pointed out in 1864, since which the whole drainage had been put into a perfect state, the laundries remodelled, and the kitchen removed. But in spite of this, the number of deaths after operations and accidents was frightful. We must refer to another page for exact particulars and a classification of the deaths, but they seem to include 66 per cent. of amputations for injury, and 10 per cent. of amputations for disease, and one in 6·58 of lithotomy cases.

That the mortality is due to the Hospital, and not to the operator, is clear from the evidence of Mr. Cadge, who says:—"I have unwillingly and almost tremblingly proceeded to operate in the Hospital, but I have had a happy confidence and a perfect assurance that in all private cases I should avoid any of these disastrous consequences, and I come to the conclusion in my own mind that pyæmia, if it does not find its birthplace, does find its natural home and resting-place in hospitals; and although a hospital may not be the mother of pyæmia, it is its nurse."

That the pyæmia and the general mortality of the patients after wounds and fractures are due to some taint arising from the presence of such patients in an insufficiently ventilated hospital, is clear from the history of this particular hospital, from the general history of surgical and lying-in wards, and especially from that of the obstetric wards in the King's College Hospital, and that of the military hospitals in Paris during the siege. Dr. Beverley seems to us to seize the real point as to prevention. It is of no use to add new wards to an old hospital; they soon become the worst of the whole. Hygienic measures, disinfectants, and antiseptics lessen, but do not cure, the malady in a once tainted hospital. All attempts at architectural features—at making a "noble institution," an "ornament to our cathedral city, and monument of the munificence of its citizens," etc.,—must be given up. A set of low buildings, with floors raised from the ground, and no storey, each building capable of containing very few patients, to be emptied of beds and cleaned at short intervals, and disconnected utterly from each other, and from the main building—such is the *beau-idéal* of a surgical or obstetric hospital.

But then, exclaims Lady Statistical Philanthropy, what an expense! What is to become of our discipline? We humbly say, We don't know. But the building and maintenance of hospitals is not an imperative duty, and not the only means of relieving the sick; and if we do build and maintain hospitals, they should be such as give patients a fair chance of recovery.

## IMPORTANT CASE OF LIFE ASSURANCE.

A case of great interest with regard to life assurance was tried at Leeds last week. The plaintiff, a physician, Dr. Jay, of Scarborough, about four years since married a widow lady about forty-five years of age. Under certain terms of the marriage settlement it was arranged that Mrs. Jay's life should be insured for £3000, which was accordingly effected in the Gresham Life Office. Mrs. Jay died in 1873 of what was certified to be "serous apoplexy." The Company, on some information which they had received, declined to pay the sum assured, and left the plaintiff to take his remedy. The lawyers, as usual, managed to involve the question in every possible way, but the simple issue to be tried was whether fraud had been committed by Dr. Jay in his proposal to assure the life of his wife. This consisted in his alleged omission to state that his wife had been attended medically for some considerable period. The second point upon which the Company rested its defence was that Mrs. Jay, for a considerable time before the assurance was effected, and even up to the time of her death, "had been ruining her health by excessive drinking, and that she died of disorders of which that drinking was the real cause." The trial lasted for several days, during which a vast amount of evidence was adduced on both sides. It would be tedious and useless to enter into these details—contradictory, unsatisfactory, and inconclusive. The able summing up of the Judge we give *in extenso*, as the trial is one of the last importance in reference to life assurance.

Baron Amphlett's address is exhaustive of the law on the subject.

He began by calling the attention of the jury to the extreme importance of the case to both parties and to the public as well. It would be impossible for them to find a verdict for the defendants without convicting the plaintiff both of fraud and perjury; on the other hand, if the verdict was for the plaintiff, a great injury might be done to the defendants should it appear that they had resisted a just claim on grounds which were insufficient. It was also painful to consider that the whole life of the deceased woman was ripped up, and that her character and reputation were at stake. He observed that the burden of proving the untruth of the statements about temperate and sober habits rested on the defendants. He commented upon the law as to the proposal, which was the basis of the policy, amounting to a warranty, so that if the questions were answered untruly, although the untruth was not known to the person answering them, the policy would be vitiated. This, said Baron Amphlett, was a harsh construction, but as the law stood he was bound to lay down that rule. The main points in the case were whether the habits of Mrs. Jay were sober and temperate at the time when the proposal for the policy was sent in, and whether they had been sober and temperate for a reasonable time before. The second question was whether she was in good health at the time when the proposal was sent in, and the answer to that mainly depended on the answer to be given to the former question. The third question was whether Mrs. Jay had ever been subject to any disease tending to shorten life, and a number of diseases were enumerated. This question was not to be taken literally. It must refer only to diseases germane to the present inquiry. There had been evidence of disease of the liver, but there could not have been any serious disease of the liver at the time of the proposal unless the defendants' evidence as to intemperance was true, and, therefore, the answer to this question depended mainly upon the answer to the first. Then came the question whether Mrs. Jay had a medical attendant whose name ought to have been communicated to the defendants. It had been contended by the defendants that Mr. Dale was the usual medical attendant of Mrs. Jay; but, as a matter of fact, upon her marriage Mr. Dale had ceased to be her medical attendant, being superseded by Dr. Jay himself. Therefore the non-disclosure of Mr. Dale's name was not in itself a violation of the terms of the proposal. There was, however, another important point in connexion with this question. If Mr. Dale had attended Mrs. Jay for any serious complaint, and had told Mr. Jay of it, then there would be an omission of a material fact, which ought to have been told to the defendants, and the policy would be vitiated. The learned judge then commented on the evidence of Mrs. Jay's relations, who had given evidence for the defendants. It would be for the jury to consider whether these relations were actuated by such high motives as had characterised the Catos and Brutuses of ancient Rome, or by spite and envy. He then went carefully through the evidence in the case, taking it much in the order in which it was given, but postponing till the end the medical evidence on both sides. In conclusion, the learned judge left four questions to the jury—1. Were Mrs. Jay's habits on the 19th of August, and had they been, sober and temperate; and, if not, was this known to the plaintiff at the time when the proposal was sent in? 2. Was Mrs. Jay in good health on the 19th of August; and, if not, did the plaintiff know of it at the time? 3. Had Mrs. Jay been subject to any disease tending to shorten life and not disclosed to the defendants; and, if so, what was the disease, and did the plaintiff know of it? 4. Was any fact which ought to have been stated to the defendants omitted from the proposal; and, if so, what was the fact, and was it fraudulently omitted? The jury retired at 4.30, and at 10 p.m. found a verdict for the plaintiff on all the issues for £3000.

Under the circumstances, it appears to us the jury could not have returned any other verdict than that which they did. The charge of fraud was withdrawn; and this by itself may be held as good proof that the insurance company had not well considered the position they took up.

## VEGETABLE FOOD.

A PAPER, read by Mr. Cooper before the British Association at Belfast, upholds the nutritive value of farinaceous articles, such as arrowroot and corn-flour. There is no doubt that these matters have fallen into undeserved disgrace for two reasons. First of all, medical men, neglecting the evidence of their daily experience, put implicit trust in the newly-discovered and fascinating theories of Liebig. According to these, nitrogenous food was the source of force and nutrition; non-nitrogenous food of heat alone. So, beguiled by this theory, our medical brethren began to denounce starch as innutritious, and manufacturers began to wash the starch out of wheat, and to prepare aliments of pure gluten, as if—though these are valuable in diabetes—they were the best for ordinary nutrition. But then came a reaction: for it was shown by experiment that non-nitrogenous food, by its oxidation, is a source not only of heat, but of muscular movement; and that, although nitrogenous food was necessary for the conservation and repair, and although it might serve for the production, of heat and force, yet that heat and force in vegetable feeders were due to non-nitrogenous elements. Then came the fact that the poorer and cheaper kinds of wheat-flour, as of other vegetables, are the richer in nitrogen and phosphates, whereas the finer and more expensive wheats, which everybody eats who can afford to buy them, are the richest in starch and poorest in nitrogen and phosphates. And next, the experience of every sick-room testified to the value of the old-fashioned cup of arrowroot. Mr. Cooper adds a special instance, showing that during some weeks of sea-sickness he lived on nothing else but arrowroot and water.

Now, all these arguments are conclusive as to the fact that starch has some value as nutriment—value of the same kind as sugar and fat. But one other great reason for the disgrace into which it has fallen is the notion, which seems to be upheld by some of those who have corn-flour to sell, that it alone and by itself is an adequate food for children and sick people. Now, we know that neither muscle nor bone can be made out of starch alone; hence that milk or some other nitrogenous food must be added if the patient is to "make old bones." The truer statement would be that milk *plus* corn-flour or arrowroot is often more suitable, more digestible and nutritive, than milk without; but then the corn-flour must be looked upon, not as a substitute, but as an improvement to the milk, by adding to its force-creating and muscle-working elements, though it adds not to its muscle- and bone-growing elements. After all, there is truth in the statement of Buckle, much laughed at as it was, that the wealth and power of a nation depend mainly on the abundance of starch.

The misuses of starch food, and the cruel starvation to which infants are condemned who are ignorantly fed upon corn-flour, or sago, and water, fully justify medical practitioners in denouncing such articles as innutritious *alone*. But if they are to be called innutritious *absolutely*, and condemned as worthless because they do not take the place of all food, then water, common salt, sugar, butter, and alcohol must also be subjected to the same ridiculous kind of *taboo*. As Mr. Cooper says, "It would be as idle to complain of the butcher for not selling vegetables as a proper part of the joint, or the baker for not selling butter with his bread, as to raise objections to these starchy foods, which are the most convenient media for conveying by admixture a wholesome amount of nitrogenous

substance, modified according to the requirements of children and invalids, who would otherwise be incapable of assimilating ordinary food."

## THE WEEK.

### TOPICS OF THE DAY.

An application was made on Monday to Mr. Justice Archibald, at the Liverpool Assizes, on behalf of Mr. Rigby, a surgeon at Chorley, to stay execution, in order that he may have an opportunity of moving for a new trial. The application was granted. The action against Mr. Rigby was for damages for alleged unskilfulness in the surgical treatment of a fractured arm in a child. As usual, medical evidence was very contradictory, and involved disputed questions of treatment. We believe that Mr. Rigby will succeed in getting a rehearing of the case. He is certainly entitled to it. We reserve comments.

It is proposed to establish a home for temporary rest for over-worked and tired "trained" nurses. It is suggested that Harrow offers special advantages for the undertaking. A lady resident there is ready to be responsible for £80 a year in the first instance, and for the management of the house. A suitable house near one of the churches can be obtained for the home. It is proposed that £200 a year should be at once raised over and above the Lady Manager's contribution, and the work commenced with that amount. We hope the benevolent proposal will meet with public approval. The object is worthy of generous support. It is well known that, from their hard toil and little rest, the ratio of mortality amongst nurses is fearfully high, which might no doubt be considerably reduced were homes of temporary rest provided. The institution, it is intended, shall to a certain extent be a provident one, the nurses subscribing towards its support.

We understand that Mr. Bellamy, of Charing-cross Hospital, is likely to succeed Professor Marshall as Lecturer on Artistic Anatomy in the Government School of Design at South Kensington.

### THE ANNUAL STATISTICAL REPORT ON THE HEALTH OF THE ROYAL NAVY FOR THE YEAR 1872.

The annual Blue-book containing the statistical report on the health of the navy for the year 1872 has just been published. From it we learn that, as compared with the preceding year, there was a decrease in the ratio of cases entered on the sick-list equal to 40 per 1000 of force, and an increase in the invaliding rate to the extent of 2·3 per 1000. In the ratio of mortality there was a reduction equal to 0·3 per 1000. The death-rate from disease alone was only 5·6 per 1000, whilst in the year 1871 it was 6·3 per 1000.

On the home station, the training ships for boys furnished, as usual, a number of cases of eruptive fevers; they were not, however, extensively epidemic in any vessel. The only disease which could be said to have prevailed epidemically during the year under notice was mumps, of which a considerable number of cases appeared in three of these ships. There was a slight increase in the ratio of cases of those forms of disease against which the Contagious Diseases Act is directed. On the home station a large proportion of the disease that exists in the protected ports is traceable to importation from unprotected districts, and there appears little doubt that, if these could be reached by legislation strictly enforced, the more destructive forms of disease might be almost stamped out. It is also most satisfactory to learn that, whenever the Contagious Diseases Act is alluded to by naval medical officers, its beneficial influence is always testified to in the highest terms, the only regret expressed in connexion with it being that it is not more extended in its application.

The lowest ratio of sickness during the year 1872 was on the South-East Coast of America, the highest on the Mediterranean Station. The average sick-rate of the total force was 45·9 per 1000, being an increase compared with the preceding twelve months equal to 0·1 per 1000. A very carefully compiled table shows that in every 100 deaths in the navy during the year in question, 30·90 per cent., or nearly one-third, were from wounds and injuries of various kinds; phthisis pulmonalis contributed 13·76 per cent.; diseases of the circulatory and respiratory systems, each 9·87; and diseases of the digestive system, 7·79; eruptive fevers gave a percentage of 10·38, the greatest mortality, as might be expected, occurring in the two decennial periods from fifteen to twenty-five, and from twenty-five to thirty-five years of age. Another very instructive table shows that out of every 100 cases between the ages of fifteen and twenty-five, 28·11 were due to cases of disease of the cellular tissue and cutaneous system, 21·33 to wounds and injuries of various kinds, 13·12 to diseases of the digestive system, 9·14 to diseases of the respiratory system, 7·82 to diseases of the urinary and generative systems, 4·54 to primary syphilis, 3·57 to rheumatism, 2·41 to continued fevers, and 0·76 to eruptive fevers. In the second decennial period (twenty-five to thirty-five) rheumatism had risen to 6·44, diseases of the respiratory system to 11·82, and diseases of the digestive system to 17·05, while diseases of the cellular tissue and cutaneous system had fallen to 18·12, primary syphilis to 3·50, and eruptive fevers to 0·73. There was, however, a fractional rise in wounds and injuries and continued fevers, compared with the preceding period. In the third decennial period (age from thirty-five to forty-five) there is a progressive increase in rheumatism and diseases of the digestive and respiratory systems, while there is a further decrease in diseases of the cellular tissue and cutaneous system, wounds and injuries, and in continued and eruptive fevers. In the period of age above forty-five years, rheumatism stood at 14·21 per cent., but diseases of the digestive system had fallen about 1 per cent. compared with the preceding period. There was also a progressive decrease in diseases of the cellular tissue and cutaneous system, and in wounds and injuries. As in the previous year (1871), the total percentage shows that the diseases most prevalent in the Royal Navy were those of the cellular tissue and cutaneous system; then wounds and injuries, diseases of the digestive system, of the respiratory system, of the urinary and generative systems, and rheumatism.

The following interesting history of a very severe case of acute rheumatism, occurring in a boy of H.M.S. *Cambridge*, is given by Staff Surgeon Ahmuty Irwin (an officer very highly spoken of in despatches during the late Ashantee campaign). The boy, aged sixteen, was admitted to the Royal Naval Hospital at Plymouth from the *Cambridge*, on November 26, 1872, suffering from acute rheumatism affecting the wrists, elbows, knees, hands, and ankle-joints, with high temperature, but without cardiac complication. He was treated, as is customary in this hospital, with a mixture containing bicarbonate, acetate, and nitrate of potassa in effervescence, and an alkaline lotion with opium to the affected joints. He progressed favourably up to December 5, when he became exceedingly restless, and complained of much frontal pain, with anxious expression of countenance. In the evening he was in a state of busy delirium, and symptoms of acute meningitis were conclusively present; at the same time all the articular symptoms disappeared. Enemata were administered, cold to the heart, and blisters, without the smallest relief. He was supported carefully with milk, beef-tea, and a fair allowance of wine. He was very restless, and continually tossing his arms about; pupils dilated, and almost inactive. He continued for about forty-eight hours in the above state, and on the morning of the 7th had been without sleep; pulse 152, and very weak; temperature

102·6°. Draughts containing twenty grains of hydrate of chloral, with syrup of ginger, were ordered, one to be taken immediately, the others at intervals, as required. Soon after taking the first draught the muscular twitchings, or tossing about, ceased, and he fell into a quiet sleep. He passed the day and night tranquilly, taking nourishment at intervals. On the morning of the 8th was quite rational, and comparatively comfortable; but about 2 p.m. there was a return of the unfavourable symptoms, less in degree. Half a chloral draught was given, which quickly composed him, and from that time there was no return of the head symptoms. The rheumatic affection relapsed, both knees becoming swollen and painful to the touch. He steadily improved from the extreme prostration, and was convalescing, but suffered from organic cardiac disease, which will unfit him for further service. He had no recollection of the *Cambridge*, nor of any circumstance immediately preceding his illness. The case is remarkable—first, for its rarity; secondly, from the fact of the disease being almost invariably fatal; and thirdly, for the good effect produced by the administration of the hydrate of chloral.

### THE NEW SYDENHAM SOCIETY.

The sixteenth annual meeting of the New Sydenham Society was held at Norwich on Thursday, August 12; Dr. Waters, of Chester, being in the chair. The ballot having been taken, the following officers were declared duly elected for the ensuing year (the gentlemen whose names are marked with an asterisk were not in office last year):—*President:* Cæsar H. Hawkins, Esq., F.R.S. *Vice-Presidents:* Alfred Baker, Esq., Birmingham; E. R. Bickersteth, Esq., Liverpool; *J. S. Bristowe, M.D.; *Edward Copeman, M.D., Norwich; J. Matthews Duncan, M.D., Edinburgh; *D. Embleton, M.D., Newcastle; *Edward Long Fox, M.D., Bristol; *Prescott G. Hewett, Esq., F.R.S.; W. D. Husband, Esq., York; T. B. Peacock, M.D.; Sir James Paget, F.R.S., Bart.; George Southam, Esq., Manchester; A. P. Stewart, M.D.; W. Stokes, M.D., F.R.S.; Sir Thomas Watson, M.D., F.R.S. Bart.; C. J. B. Williams, M.D., F.R.S.; *Hermann Weber, M.D. *Council:* James Andrew, M.D.; Warburton Begbie, M.D., Edinburgh; W. H. Broadbent, M.D.; Charles Brooke, Esq., F.R.S.; T. Bryant, Esq.; Thomas Buzzard, M.D.; Robert Cecly, Esq., Aylesbury; W. Cholmeley, M.D.; T. B. Crosby, Esq.; Thomas M. Daldy, M.D.; J. Langdon H. Down, M.D.; Dyce Duckworth, M.D.; Robert Dunn, Esq.; C. Hilton Fagge, M.D.; J. Fayrer, M.D.; *C. J. Hare, M.D.; T. F. Grimsdale, Esq., Liverpool; *John Hamilton, Esq., Dublin; *W. Price Jones, M.D., Surbiton; J. C. Langmore, M.B.; *Joseph Lister, F.R.S., Edinburgh; *Alfred Meadows, M.D.; G. H. Philipson, M.B., Newcastle; *Henry Power, Esq.; *W. O. Priestley, M.D.; W. Roberts, M.D., Manchester; James Russell, M.D., Birmingham; Leonard W. Sedgwick, M.D.; Septimus W. Sibley, Esq.; *Thomas Sympson, Esq., Lincoln; T. P. Teale, Esq., Leeds; William Turner, M.B., F.R.S.E., Edinburgh. *Treasurer:* W. Sedgwick Saunders, M.D., 13, Queen-street, Cheapside, E.C. *Auditors:* E. Clapton, M.D.; S. Fenwick, M.D.; F. M. Corner, Esq. *Honorary Secretary:* Jonathan Hutchinson, Esq., 4, Finsbury-circus, E.C.

The report shows that the financial condition of the Society is highly satisfactory, there being more than £1000 in hand in addition to a very valuable stock of books. The balance-sheet shows an annual income of £3566, which would appear to represent subscriptions of about 3000 members, augmented by receipts from the sale of surplus back volumes. The principal works which the Society has now in progress are its "Atlas of Skin Diseases," which it is intended to continue for some years longer; its "Retrospect of Medicine and Surgery," which appears biennially; and a new and revised edition of "Mayne's Lexicon," which is in course of preparation. In the preparation of the last of these, the editor-in-chief, Mr. Robert Cooke, will in future be assisted by Drs. Greenhill, Clifford Allbutt, John W. Moore, of Dublin, and Reay Greene, of Belfast. The labour on this volume has been found to be very heavy, and the Council cannot fix any definite time for its probable completion. As a necessary measure of limitation, it has been decided to restrict the work to words having relation to medical pursuits. A translation, with notes by Mr. Hinton, of Van Troeltsch on the "Surgical Diseases of the Ear," with a short monograph by Professor Helmholtz on the "Mechanism of the Internal Ear," is in the binder's hands. A fourth volume of Hebra's work on "Skin Diseases," a fourteenth fasciculus of the "Atlas of Skin Diseases," and a second part of the "Descriptive Catalogue of the Atlas" will complete the series of the year.

### THE PHYSIOLOGICAL ACTION OF PROPYLAMINE AND OTHER DERIVATIVES OF AMMONIUM.

The *Comptes-Rendus de la Société de la Biologie de Paris* for 1873 (p. 246) contains an account of some experiments made by M. Laborde on the physiological action of the substances above enumerated, with especial reference to the great use which has lately been made of propylamine and its allies in France in the treatment of acute rheumatism. His results seem, as he himself remarks, to be but little in accordance with empirical views of their properties. The conclusions arrived at are as follows:—

1. Propylamine in the crude form, or trimethylamine, both act primarily on the central nervous system, especially its spinal portion, and produce, in physiological doses, excitement and increased functional activity of the cord, so as to react on the respiratory and circulatory systems, and to accelerate the heart's action. In poisonous doses depression follows this excitement, and at this period only (that is, if the doses are excessive) there is a retardation of the pulse and depression of temperature. Death results from cardio-pulmonary asphyxia. If trimethylamine be given to a dog by the stomach, it will be tolerated up to a dose of three grammes without vomiting, but by its local irritation catarrh of the mucous membranes of the stomach and duodenum is produced, accompanied by hyperæmia and superficial ulceration; and if it be injected into the subcutaneous tissues it produces true sloughs. It can also give rise to hæmaturia from congestion of the kidneys.

2. The physiological action of chloride of trimethylamine is substantially the same as that of its base, but it differs from it by its slighter intensity, which scarcely attains that of half a dose of the other. Neither salt should be regarded as acting directly on the muscular tissues or as true cardiac poisons.

3. Trimethylamine and its chloride are in their physiological action on the nervous system rather analogous to the ammoniacal compounds in general, especially the chloride and acetate of ammonium; but while the latter salts even produce tetanic convulsions, trimethylamine and its chloride scarcely do more than produce muscular trembling and an exaggeration of the principal functions of the spinal cord.

Trimethylamine and its chloride (especially the former) are thus general functional excitants, and they rouse and accelerate the circulation more than they depress or calm it, for depression only succeeds large and long-continued doses, which injure the system by irritating the digestive and urinary organs. We cannot therefore look on them as true antipyretics, and they are also much inferior in respect of their exciting and stimulating action to the chloride and acetate of ammonium, and require to be given in much larger doses than the latter.

The trimethylamine was, in M. Laborde's experiments, injected into the dog's stomach by means of a sound, in doses of one to three grammes dissolved in fifty grammes of water, and the dose was repeated for twenty days.

loride of trimethylamine was injected into the dog's

crural vein in five-gramme doses dissolved in fifty grammes of water, and chloride of ammonium was exhibited in the same way in a warm solution of from three to five grammes in forty of water.

### HOSPITAL SUNDAY FUND.

The amount collected by the Hospital Sunday movement this year scarcely exceeds that of last year. It appears to have been distributed amongst the various charities with complete fairness and judgment. It is satisfactory to know that the Committee of Distribution made very searching inquiries into the real position of the institutions to which the various sums were allotted. One of the tests required by them was a balance-sheet of receipts and expenditure during the past three years. The production of this document was readily furnished in the great majority of instances. It was not forthcoming, however, on the part of certain "hospitals and dispensaries" with high-sounding names and large pretensions. We suppose at least that this was the reason why no grant was made to such charities as the British Hospital for Skin Diseases, Great Marlborough-street; St. Peter's Hospital for Stone; Hospital for Diseases of the Throat; National Hospital for Diseases of the Heart; Royal South London Ophthalmic Hospital; National Dental Hospital; and the Western Ophthalmic Hospital. The St. John's Hospital for Diseases of the Skin did not apply. Now, these "great" hospitals advertise pretty extensively, in fact, some of them almost daily, the sums of money they receive from the public. It is surely due to their contributors and to the public at large, to be informed in what way this money has been spent, and what are the accumulated funds, if any. How many beds, for instance, are contained in each of these "British" and "National" hospitals? Judging from the apparent size of some of them, it would appear difficult to find any beds at all, except those for the housekeepers and servants. At all events, these institutions have no right to expect further support, so long as they refuse to give an account of their stewardship. Amongst the prominent benefits that the Hospital Sunday Fund is likely to confer on the public, is that of testing the real claims of its various applicants to consideration. We have reason to believe that the statements of some of the hospitals, old-established, well conducted, and well situated, are unsatisfactory and deplorable: in debt, with failing subscriptions, and in many cases invested capital gradually diminishing. Whatever opposition the private special hospitals may make to disclosing their real pecuniary position, matters but little; the public will draw its inference from their silence—an inference which cannot be a mistaken one.

### INDIAN MEDICAL SERVICE.

The following is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on August 10. Twenty-eight candidates competed for fourteen appointments; all were reported qualified:—

| | No. of Marks. | | No. of Marks. |
|---|---|---|---|
| 1. Stocker, R. N. | 2340 | 8. McCartie, C. J. | 1898 |
| 2. Bomford, G. | 2190 | 9. Lucas, J. C. | 1885 |
| 3. Barclay, A. | 2156 | 10. Adams, A. F. | 1840 |
| 4. O'Hara, W. | 2135 | 11. Sweetnam, M. | 1800 |
| 5. Tootell, E. | 2065 | 12. Oliver, J. P. | 1795 |
| 6. Gray, H. A. C. | 1935 | 13. Hume, T. | 1755 |
| 7. O'Keefe, J. L. | 1910 | 14. Parakh, D. N. | 1720 |

### "ARCHIVES OF DERMATOLOGY."

We have received the prospectus of a new American professional journal with the above title, to be published quarterly, and to be devoted to skin and venereal diseases. The editor, Dr. L. Duncan Bulkley, publishes an imposing list of "collaborators." The first number will appear on October 1.

### INSPECTION OF THE HOUSES OF THE RICH.

House-to-house inspection has hitherto chiefly been limited to the dwellings of the working-classes, but instances are constantly cropping up which reveal a sadly insanitary condition of the residences of the upper and middle classes. The necessity of a like vigilance in the supervision of the houses of the latter classes is gradually forcing itself upon public notice, and it must sooner or later be as regularly and systematically adopted. Scarcely a week passes but some medical officer of health refers to this subject, prompted by the result, probably, of a *special* inspection of houses occupied by the rich and well-to-do. An Act of Parliament of an important sanitary character on the dwellings of the poor has recently passed the Legislature. It is obvious that fresh legislation is almost as much needed in respect to the vital points of sanitary supervision and construction of the residences of those higher in the social grade. Sanitary administration to be perfect must be universal.

## FORTY-SECOND ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

### THE MEDICAL SECTION.

Cases of Convulsions from Organic Brain Disease, by Dr. Gowers—The Localisation of Function in the Brain, by Dr. Ferrier—Discussion on Aphasia.

Dr. Gowers, of London, read a paper on three cases of Convulsion of deliberate march, due to organic cerebral disease, the exact limitation of the lesion being ascertained by post-mortem examination. In the first case a series of unilateral convulsions affecting the angle of the mouth, arm, and leg, of one side only, commenced by simultaneous and equal clonic spasm in the two frontal muscles, followed by spasm in the two orbiculares palpebrarum, greater on the side to which, in the rest of the muscles, the convulsion was limited. The lesion found was a clot situated above the lateral ventricle on the opposite side. The distribution of the spasm in this case was compared with that of the paralysis in an ordinary case of hemiplegia, and it was pointed out that the former is explained as consistently as the latter by Dr. Broadbent's hypothesis. The second case was one of a series of convulsions, each beginning unilaterally by a half-coördinated movement of the hand, the forefinger being extended and the hand raised to the head. The spasm then spread to the other muscles of that side, and then to those of the opposite side. The attacks were found to be due to a band of intense congestion and minute extravasation in the frontal lobe of the opposite side, crossing the anterior portion of all three convolutions, and extending from the longitudinal fissure to the anterior limb of the fissure of Sylvius. The congestion was due to thrombosis in a vein. In the third case a small tumour, evidently of long duration, situated in the white substance above the lateral ventricle, was the apparent cause, during several years, of convulsive attacks which began with an aura in the wrist on the same side as that on which the tumour was situated. The aura had, by a blister, been for a time transferred to the opposite arm. It was conjectured that the tumour had probably produced the convulsion by influencing the opposite hemisphere through the commissural fibres of the corpus callosum, in the midst of which it was placed.

Dr. Ferrier, of London, read a paper upon the Localisation of Functions in the Brain, and referred especially to aphasia by way of illustration. He did not wish to make an elaborate statement, but only to point out the bearing of experiment on the pathology and diagnosis of brain disease. The method which he employed was now familiar. The experiments of Fritsch and Hitzig and of himself had been frequently repeated by other observers, and the facts were generally admitted. But the interpretation of these facts was various. Dr. Ferrier then answered certain objections which have lately been raised to his conclusions—for example, that the convolutions are not motor in their function because they do not respond to stimulation when the animal is fully under chloroform; that the movements obtained by galvanising the convolutions are due to excitation of the basal ganglia by conduction, and that similar results may be obtained by exciting the white matter

after the convolutions are sliced away. After reviewing the results which he has obtained, and indicating the locality of the best-ascertained centres, Dr. Ferrier proceeded to show how destruction of these centres will be accompanied and represented by paralysis throughout the body. Experiment, he considers, quite bears out Dr. Broadbent's theory of bilateral co-ordination of associated movements in the spinal cord, and certain higher centres. When a centre in one hemisphere is destroyed, the other or sound hemisphere is sufficient to excite the opposite ganglia by the associated fibres. In regard to the destruction of the mouth-centre—excitation of a centre generally causes cross-action, but in the case of the tongue and mouth the resulting movement is bilateral. And we know that when destructive lesions occur in that region of the brain, aphasia as a rule results—inability to give expression by articulate speech. Why should this be the result? Dr. Bateman, of Norwich, had shown abundantly that we may have lesion in this region of the brain without aphasia. Still, many cases of the association had been observed, and must be explained. Dr. Ferrier would explain them by the consideration that the centre referred to is the centre not only of speech, but of the memory for words. Words, however, are merely symbols, and the idea may exist when the memory of its symbol has been lost. Thus, the various qualities which make up the object *orange*—its colour, shape, weight, etc.—are stored up each in its own centre in the brain; in one of these centres is the *word* "orange." Therefore, when this part alone is destroyed, the memory of the *word*, and of the word only, goes. Again, in most cases of aphasia the lesion has been on the left side. In regard to the function of speech, the two hemispheres are symmetrical, but they work together. One side, however, comes to be more used, just as one hand does. The result of lesion corresponds—the words really remain in the right hemisphere after lesion in the left, but they cannot be got at. There is no reason why the right hemisphere should not be educated, and some interesting cases have been recorded where it has been, and the faculty of speech has been recovered after permanent lesion to the left side. Aphasia has been found without obvious lesion to the centre of speech in the brain. Such cases are apparently to be referred to functional interference.

Dr. Bateman, of Norwich, replied to Dr. Ferrier. While he disclaimed any idea of pushing his views dogmatically, he considered the question of the pathology of aphasia still *sub judice*, and believed that, in the face of his arguments, Dr. Ferrier's case was "not proven." These arguments are two-fold. First he has collected cases where not only Broca's convolution but the parts around it have been destroyed without any affection of speech. Secondly, he has collected another series where aphasia existed without any lesion whatever in the brain. It may be urged that there is disease in these cases beyond our powers of investigation; but this must not be used as a positive argument. Possibly there may be some lesion of a thermal, chemical, or electrical nature. Again, aphasia was frequently temporary. Dr. Ferrier's paper was too motor in the character of its explanations—not sufficiently psychical. Dr. Bateman believed that what is wanted is much more careful clinical investigation of such cases.

Dr. Milner Fothergill, of London, said that all recent investigation had pointed to the conclusion that there were in the brain numerous centres possessing different functions. Some investigations, which he was independently pursuing, as to the vascular supply of the brain, had revealed the fact that not only was the blood supply of different areas in the brain quite separately derived, but even the vaso-motor nerve supply was widely separate in its origin in the case of the carotid and vertebral arteries.

Dr. Batty Tuke, of Edinburgh, held with Dr. Bateman that Dr. Ferrier did not lay sufficient weight on cases of aphasia without lesion of Broca's convolution. He had himself examined the brains of aphasics microscopically, and sometimes could find no disease whatever. In a case which he had reported, and to which Dr. Ferrier had referred, Broca's convolution was completely obliterated, but the faculty of speech perfect before death. If the right hemisphere took on the function in this case, it was very strange that the words which the patient did forget were the simplest ones—names.

Dr. Dowse, of London, said that in more than 100 cases of aphasia which he had observed he had never failed to justify M. Broca's conclusions. It must not be forgotten that affection of the vessels can account for transient aphasia. Dr. Dowse would agree so far with Dr. Bateman—he would not omit the psychical element. This was lost in aphasia, and the brain of the man was then reduced very much to the condition of that of a dog.

Dr. Eade, of Norwich, was inclined to agree with those who believe there is considerable evidence in favour of the localisation of speech. Garrulity in disease of the region of speech rather supported the same view than the opposite.

Dr. Ferrier replied, and repeated that he objected to the localisation of speech-centre on one side only of the brain. As for the mention of a psychical element in aphasia, he believed this was but the introduction of transcendental metaphysics into a subject capable of a physiological explanation by centres of sensation and motion. There was no difficulty in accounting for temporary aphasia. When functions are represented bilaterally in the brain, one hemisphere may be trained to discriminate, while the other is not. Thus it is very common for men to see better with one eye, and hear better with one ear, than with the other. Otherwise this may be expressed that men habitually use their left hemisphere for seeing and their right for hearing. As for the relation of the will to the centres, Dr. Ferrier declined to enter into it on this occasion.

### Diphtheritic Paralysis, by Sir J. R. Cormack, M.D.—Diphtheria, by Mr. Prangley—Discussion.

Sir John Rose Cormack, of Paris, read a paper entitled "Diphtheritic Paralysis: its Natural Course, Pathology, Treatment, and Relation to Paralytic Affections following Fevers." The following is an abstract:—

The author began by describing a minutely observed very severe, but typical, case of diphtheritic paralysis. The main object of the paper was to elucidate the natural history of the affection, which he looked upon as the true guide to the prognosis and treatment of each case—so far as a guide exists irrespective of the individual peculiarities of the patient, and the character of the disease in respect of the district, season, and race in which it occurs, and (should the disease be prevailing as an epidemic) the constitution of the epidemic. The most skilful physician cannot cure pneumonia, typhoid fever, or diphtheria; but he can guide to recovery many patients suffering from these diseases who would be lost by the routine administrator of remedies. Medicines are sometimes exceedingly useful in diphtheritic paralysis, as well as in the earlier stages of diphtheria; but in each case, and in each epidemic, we find that the efficacy of particular remedies varies with the variation in the therapeutic opportunities. The author regarded a generous, easily assimilated diet as the basis of treatment in all stages and forms of diphtheria and diphtheritic paralysis; ferruginous medicines are nearly always useful, but, like all other medicinal agents, they have their times for being given and for being withheld. In diphtheritic paralysis, the persistent use of local stimulants, and particularly small bands smeared with a pungent paste composed of mustard, ginger, and lard, constitutes the most useful topical treatment which can be adopted. Electricity has its opportunities, and is sometimes most beneficial. Change of air, the douche, and short courses of nux vomica, are agencies which frequently give a start to a lagging recovery. Still, we must never lose sight of the fact that the paralysis has a definite career to run; and that, if the patient can only be got to eat and drink well, and digest his aliment, he will, at the end of a longer or shorter time, be restored to health, provided always, of course, that no insuperable obstacle exists, such as implication of the muscles of respiration in the paralysis. In discussing the pathology of the affection, the author referred to recent German and Italian physicians who have described autopsies in cases of diphtheritic paralysis, in which they found a structural change in the grey and white matter of the medulla, which appearances some of them have termed disseminated myelitis. The author looked on these appearances, in the cases referred to, as secondary. Diphtheritic paralysis, though it has its own peculiarities and specialities, is similar in kind to the paralysis which we meet with as a sequel of typhoid fever, relapsing fever, scarlatina, and dysentery. In all it is peripheric. Its invariable starting-point is the velum pendulum palati; and that is a distinctive peculiarity between it and the paralysis following typhoid fever, relapsing fever, scarlatina, and dysentery.

Mr. Prangley, of Aylsham, also read a paper on Diphtheria.

In the debate which followed, Dr. Eade, the President of the Section, Dr. Russell Reynolds, and Dr. Peter, of Paris, took part.

Dr. Eade claimed to be the first English author who had

published cases of diphtheritic paralysis; his paper on the subject appeared in July, 1859.

Dr. Peter concurred in the opinions expressed by Sir J. Cormack, that there is always a spontaneous tendency to recovery, that the affection is peripheric and reflex in its origin, and that it always begins in the veil of the palate.

Sir John Cormack replied at considerable length. He said that it was not safe to found our treatment of diphtheria only upon what we ourselves may have seen and done. A practitioner may have seen in some particular locality, or in some particular epidemic, nothing but recoveries; and if he have applied iodine locally, and given zinc or iron internally, he may be inclined to attribute the successful issue of his cases to the treatment which he pursued. Unless he be as conversant with the experience of others as with his own, he may long slumber under his delusion; but the time may come to him, as it has come to others, when, in spite of his cherished remedies, local and general, he will see a large proportion of the attacked perish from croup, or be saved only by tracheotomy performed in good time; or die, it may be, from the exudative affection descending to the minutest bronchial tubes. The local use of applications to the throat of a diphtheritic paticut is fraught with infinite danger to the applier. Many medical practitioners and medical students have received the diphtheritic poison in the spit of their patients, involuntarily ejected on the application being made. Promising young physicians, and some elder men—celebrities in medicine—have died of diphtheria so contracted. Hence we learn that, if we do apply anything to the throat, we can only do it with safety to ourselves if we wear a mask. But all potent applications to the throat have ceased to be in favour with those who have seen most of diphtheria. They say that iodine, nitrate of silver, and the like, in bad cases produce increased exudation; while in mild cases, where the exudation tendency is moderate, they seem to do little or no harm. The only, or almost the only, local applications now used by the author are the glycerat of borax of the British Pharmacopœia, and a weak solution of chlorinated soda or potash. These promote the separation of the pellicle, and do not irritate the mucous membrane. The appearance of albumen in the urine is not in itself of evil prognosis. In many cases in which the urine has been intensely albuminous, we have complete recovery. Diphtheria is essentially characterised by intermittence in the gravity of the symptoms: a lull, often mistaken for the dawn of convalescence, is not at all unusual. After such a lull, as a prelude to an exacerbation of symptoms, we can, usually, by the thermometer, detect a rise in temperature, and a concurrent appearance or reappearance of albumen in the urine. Touching the differential diagnosis of simple membranous sore throat from the specific disease diphtheria, the author thought that it could neither be determined by the presence nor by the absence of fever, nor by any other than one test—a test simple and sure. Apply a small blister to the arm or elsewhere: if the case be diphtheria, the raw surface will become covered with diphtheritic pellicle; if it be not diphtheria, no false membrane will appear.

## THE SURGICAL SECTION.

### Successful Resection of the Shoulder-Joint in a Case of Gunshot Wound, by Sir J. R. Cormack, M.D.

A. B., a strong muscular man, aged thirty-nine, was by trade a mason. The exigencies of the Franco-German war made him a soldier, and the Communistic civil war converted him into one of the pseudo-military masters of Paris. He was wounded at the bridge of Neuilly on the afternoon of April 12, 1871, and was, an hour or two afterwards, brought to the Ambulance Anglaise in the Rue d'Aguesseau. A rifle-bullet had entered from behind at the top of the right shoulder, and had made its exit in the anterior aspect of the upper third of the arm, smashing in its traject the head of the humerus and the upper part of its shaft. The operation was (early next morning) performed by Sir John Cormack, assisted by his son, Mr. J. R. Baillie Cormack. Neither of the two apertures made by the bullet could be utilised in the operation. Sir John, therefore, made a single longitudinal incision at the outer sider of the joint through the deltoid, and in the course of its fibres, exposing well the bone. Having dislocated the head of the humerus, Sir John dissected out the pieces—more than twelve in number—of the smashed head and shaft. Having carefully examined with his fingers the irregularly fractured end of the humerus, pushing and pulling each of its jagged points so as to enable him to determine whether the shaft was or was not split down towards the elbow, he came to the conclusion that the remainder of the shaft was sound. He therefore forthwith completed the operation by removing the irregular end of the bone. Mr. Baillie Cormack grasped the arm a little above the elbow, and so manipulated it as to push the bone through the incision, whilst Sir John, holding the extremity to be removed in his left, used a small saw with his right hand. The operated arm was then flexed at the elbow, and laid across the chest. It was securely, but with very little pressure of bandages, attached to a concavely moulded oakum-padded pasteboard splint, so that it might be easily examined without occasioning pain or displacement. Cold water dressings were applied by means of light compresses, and were diligently continued during the day. There was a considerable sanguineous oozing for some hours. In the evening the cavity was syringed with creasote water, when five or six minute pieces of bone were washed out. More solid bandaging was afterwards adopted. From immediately after the operation, the patient was able to use the hand, the thumb, and each finger. He could also squeeze tightly with the hand. Sensation in arm or hand was never in the slightest degree impaired. When A. B. recovered from the operation he was taken to prison, and was afterwards tried by court martial at Versailles. To his own great surprise, he was acquitted. Exactly one year after the operation—that is to say, on April 12, 1872—a photograph was taken, which was exhibited to the meeting. In the photograph the patient is holding the removed portions of his humerus in the hand of the operated arm. The fragments have been joined together. The portions of excised bone were shown to the meeting. The length of the removed portion of the humerus is three inches and a half. When the photograph was taken the patient was (as he is now, August, 1874) in excellent health. He can make good use of his arm in many ways: he can lift with it great weights, such as large pails of water and baskets of coal; he can write; and he can work a sewing machine with it. He can place the palm of the hand on his forehead. To the casual observer, he can do everything with his hand and arm which others can do; but it is not so: he cannot far separate the arm straight outwards from the side. The false articulation is marvellously strong and flexible. There is not the slightest atrophy of any of the muscles except the deltoid, which is much smaller than that of the opposite side, though now it has not nearly so wasted an appearance as it had twelve months ago. The author described the general principles upon which he had treated several very severe shot and shell wounds, dwelling particularly upon the manner in which he had employed opium, cinchona, aliment, and fresh air as the most important curative agencies.

## THE PUBLIC HEALTH SECTION.

This Section was opened with an address by the President, W. H. Michael, Esq., which will be found elsewhere in our columns.

### The Bearing of Medical Relief on Poor-Rates, by Dr. Rogers.

Dr. Rogers delivered an address upon "The Bearing of Medical Relief on the Poor-Rates." He argued that by giving a liberal medical relief, the poor-rates would be considerably eased. Since proper medical relief had been given in Ireland, pauperism had there gone down. Dr. Rogers then quoted statistics to show the difference of cost of poor relief between Ireland and England, through, as he contended, the giving of efficient medical relief. He took a series of towns of nearly equal population in England and in Ireland, and showed that the English begrudge medical relief, and pay largely to the general pauperism; Ireland pays her medical officers liberally, and the poor-rates are low. Thus, Limerick has a population of 90,000, Norwich of 80,000. Limerick pays £2000 in medical relief, Norwich pays £1100. On the other hand Limerick pays only £20,000 for poor-rates, while Norwich pays £30,000. This is the drift of Dr. Rogers' very earnest address.

Dr. H. W. Rumsey, of Cheltenham, read a paper on "The Correlation of Sick-Poor Relief and Public Health Administration."

He was supported by Dr. A. P. Stewart and by the President, who expressed their thorough dissatisfaction at the

existing organisation of the State departments of Public Health and Destitution Assistance.

### Hospital Hygiene, by Dr. Beverley.

Dr. Beverley read a paper on "Hospital Hygiene," in which he gave the following summary of wounds and operations during ten years at the Norfolk and Norwich Hospital:—1st. Major Operations: All more or less dangerous to life in themselves, such as major amputations, ovariotomy, excisions of large tumours, etc. Total number of operations, 725. Total number of deaths from all causes, 90. One in 8·02, or 12·42 per cent. Of the 90 deaths, 24 were from pyæmia, giving a death-rate from this cause alone of 1 in 30·20, or 1 death from pyæmia in every 3·75 from all causes, or 3·31 per cent. 2nd. Minor Operations: Not necessarily nor usually fatal to life in themselves, such as amputations of fingers, rectal operations, removal of small tumours, etc. Total number of operations, 1101. Total number of deaths from all causes, 9, of which 2 were from pyæmia. 3rd. Operations of *dernier ressort*, not included with above as either usually fatal from previous disease or injury, such as tracheotomy for croup and diphtheria. Number of operations, 40; deaths, 9; or 1 in 4·4, or 22·5 per cent. No death from pyæmia. Amputations from injury: Total number, 75. Deaths from all causes, 24; or 1 in 3·12, or 32 per cent. But of the 24 deaths, 12 have been from pyæmia, giving a death-rate from this cause alone of 1 in 6·25, or 16 per cent., or 1 death from pyæmia in every 2 from all causes. Amputations from Disease: Total number, 68. Deaths from all causes 15, or 1 in 4·53, or 22·05 per cent. But of the 15 deaths 7 were from pyæmia, giving a death-rate from this cause alone of 1 in 9·71, or 10·29 per cent., or 1 death from pyæmia in every 2·14 of deaths from all causes. Lithotomy: Total number, 112. Deaths from all causes 17, giving a death-rate of 1 in 6·85, or 15·17 per cent. But of these 17 deaths 5 were from pyæmia, giving a death-rate from this cause alone of 1 in 22·4, or 4·46 per cent., or 1 death from pyæmia in every 3·4 from all causes. "Bad as is the hygienic condition revealed by the above statistics," said Dr. Beverley, "I regret to have to tell you that it is really worse even than it appears. I have given an account only of deaths from pyæmia after operations. These amount in the ten years to 26. I must add 16 more as 'after injury,' such as compound fractures, wounds, etc., for which no operations were performed; this makes a total of 42 deaths from pyæmia during the last ten years, in nearly all of which the presence of secondary metastatic abscesses in the lungs, liver, or some other organ, has been proved by post-mortem examination, the chief symptoms of which during life have been rigors, profuse perspirations, persistent high temperature, and mental depression. I am bound also to state that numerous cases of death from wounds, compound fractures, and other injuries have occurred, in which the symptoms of pyæmia or septicæmia have been present during life, but in which no post-mortem examinations have been made, the cause of death being returned in the words 'accidental death' by the coroner's jury, these words having been made to cover many a septicæsia. Out of 779 cases recorded as wounds during the ten years I have analysed, 36 deaths have occurred; of these 7 only have been returned as dying of pyæmia. One hundred and sixteen compound fractures are returned during the same period; of these 40 have died, and 6 only are assigned to pyæmia. I am afraid 'shock,' 'exhaustion,' 'hæmorrhage,' 'tetanus,' and other causes will not alone account for the remaining deaths." Dr. Beverley strongly denounced the custom of introducing out-patients into any hospital-building, and advocated the pulling down such parts of the present building as obstruct ventilation, restricting the existing wards to medical cases, and erecting isolated buildings for surgical patients.

In the discussion that followed, many causes were alleged as contributing to the unhealthy state of wounds. Dr. Rumsey accused the east wind; Mr. Sympson, the effluvia from water-closets and drains; Mr. Barwell would have all patients bathed and purified before admission into a ward with others; Dr. Falconer recommended dry-rubbing, and making the roofs to open, and shutting off the out-patients; Dr. Fox believed the walls of old hospitals were saturated. Dr. Copeman spoke of the unventilated spaces in the roof as reservoirs of foul air; and described epidemics of erysipelas in bygone days before the additions had been made to the hospital. Mr. Jonathan Hutchinson believed syphilitic phagedæna was the source of infection in hospital gangrene, and local phlebitis of pyæmia. Dr. Fussell reprobated the attendance of pupils in the fever wards and dead-house at a time when they also dressed wounds and operations. Amidst much diversity of expression there seemed a general unanimity as to the general causes of unhealthiness in hospitals.

Dr. Cornelius Fox read a paper "On Water Analysis," in which he ridiculed reliance on the permanganate test.

Dr. Haviland exhibited some of his interesting Medical Maps.

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*Museum.*—Our notice of the museum was so very brief—so very little more than a bare statement that there was a goodly collection of "things to be known," and to be seen—that no exhibitor can suppose that our not having mentioned his name could mean anything more than that the time we had been able to give to the Museum was very small, and the space at our command for noticing its contents still smaller. Had we pretended at all to criticise the contents, or to note, even by name only, the chief exhibitors, we should of course have mentioned, *inter alia*, the large and excellent collection exhibited by Messrs. Salt and Son, of Birmingham.

## MEETING OF THE BRITISH ASSOCIATION AT BELFAST.

### Abstract of the Opening Address in the Section of Biology.

*By Professor Peter Redfern, M.D., President.*

Professor Redfern said that the time could not be more profitably occupied than by bringing into as great prominence as possible some of the great revolutions in our knowledge of anatomy and physiology which had taken place in his own time and under his own immediate observation. He remembered, he said, as if it were yesterday, the elucidation, in the museum of the Royal College of Surgeons of Edinburgh, of the newly discovered cell-theory, by the late distinguished Professor of Anatomy in Edinburgh, John Goodsir; his account of the production of ulceration by cell-growth, of the characters of the corpuscles of bone, of the structure of lymphatic glands, and of the germinal centres of basement membranes as they were then understood. At this period the great discoveries of Schleiden and Schwann seemed likely to upset all that had previously constituted physiology. The idea that all tissues were either composed of cells, or had been formed of cells—that nucleated cells elaborated all the secretions, and formed the excretions, that their energy lay at the very root of the formation, the reproduction, and the function of every tissue and organ,—was a revelation of such astounding simplicity, as might well upset men's minds and prevent them seeing beyond. No one who did not live through that time will, I believe, ever realise the eagerness and anxiety with which every new statement of the action of cells was received, and added to the previous knowledge of their amazing power; or, on the other hand, be able to judge of the feeling, half akin to disappointment, which was experienced as each succeeding attack was made on the charming theory, showing it to be really human—very human indeed. This great cell-theory has now given place to certain knowledge that living matter may move, perform all the functions of assimilation and nutrition, and reproduce its like without having any of the essential characters of a cell. A living mass of protoplasm may change its shape, alter its position, feed and nourish itself, and form other matter having the same properties as it has, and yet be perfectly devoid of any structure recognisable by the highest powers of the microscope. Dr. Redfern then mentioned some of the most important observations in support of movement in fixed and free masses of protoplasm, and referred especially to the sources of blood corpuscles. He next passed on to compare our former views of the structure of animal membranes with those at present held. The skin (covering the outer surface of the body), the mucous membranes, the serous linings of the great internal cavities and of the blood- and lymph-vessels, and the lining membranes of joints, were all alike viewed as if formed of a definite membrane covered on one side by cells, and on the other supplied by

blood- and lymph-vessels and by nerves—the membrane covering in the latter parts and effecting an absolute separation of the cells from the vessels and nerves, which were universally believed never to penetrate into the cellular layer. The cells were regarded as the parts actively engaged in the performance of the functions, the vessels and nerves aiding thereto supplying materials to be acted on by the cells, and the nerves regulating the amount of action at particular times for special purposes. The diseased conditions, like the functions, were kept perfectly distinct; and we had one set of diseases of the epithelial or cellular parts, and another and a different set of diseases of the membranes and of the parts below. But it soon became thoroughly well known that the glands of the skin, the hair-bulbs, and the teeth are produced by a local development of the deep cells of the cuticle, extending far below the line of the basement membrane or cutis, and through the position which it was supposed to occupy, as though no membrane were there to hinder them. Thus the basement membrane, which was supposed so arbitrarily to separate the cells on one surface of membranes from the vessels and nerves on the other, gives way at once before an increased development of the cells, whether in the formation of new organs or the extension of disease. And the membranous walls of capillary bloodvessels allow the corpuscles of the blood to pass through them much in the same way as solid particles enter into and traverse the substance of the protoplasm of an amœba or other mass of sarcode. Whilst physiologists were engaged in these observations, Graham made the discovery of crystalloids and colloids—a discovery which has enabled physiologists to explain how animal membranes are traversed by various substances which could not pass through them without being changed from the colloidal into the crystalloidal form. Thus the colloidal starch and albumen of our food scarcely admit of absorption until in the process of digestion the starch becomes sugar and the albumen albuminose—crystalloidal bodies which pass through animal membranes with great facility. And, again, this crystalloidal albuminose, after having passed into the tissues through the membranous walls of the vessels, may become a second time a colloid, and be deposited and fixed as tissue-substance, ready in its turn to be permeated by crystalloids either for temporary or more durable purposes in the economy. Dr. Redfern next directed the attention of his audience to the present aspect of the question, How far do basement membranes limit the distribution of vessels and nerves and separate them from the cells of glands and membranes? He reviewed at some length the discoveries of Bowman, Max Schultze, Lockhart Clarke, and others on the structure of the olfactory organ, and concluded that the nerves there divide into myriads of small finger-like processes, which, exposed on the free surface of the membrane, are actually engaged in feeling at the odour-particles to inform us of their characters. Equally striking results have been obtained from the investigation of the organs of taste and hearing. The greater portion of the rest of the President's address was occupied with a lengthy expositiou of Pflüger's views of the structure of salivary glands, and especially of the distribution of the nerves. Reference was also made to the intra-epithelial nerves of the skin and cornea. In conclusion, Dr. Redfern said that when he looked upon the vast amount of research which had been applied to the department of biology for some years past, and thought that the instrument, which has afforded the great means for it, was only perfected so as to be capable of use for such purposes about 1820, he could not but congratulate the Section on the abundant fruits which were being reaped. And when, in addition, he contemplated the amount of certainty which physical science has imparted to physiology by furnishing the means of examining and accurately measuring the rates of transmission of nerve-currents, of obtaining tracings of the respiratory movements, and of the arterial pulsations, of examining the retina in the living eyes, and the larynx of a living man, almost as readily as if these parts were exposed in a dissection, he could not but conclude that this nineteenth century has already been distinguished as a very notable one for biology, and especially for physiology.

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THE Ennis Board of Guardians have increased the salaries of Drs. Michael Greene and Joseph Enright from £100 to £110 per annum, and notice of motion has been given to similarly increase the salary of another medical officer.

## MAN.(a)

LAST year, when the Scientific Congress of France held its thirty-ninth annual meeting at Pau, Sir Alexander Taylor was elected Vice-President, and had given to him to write an essay (of which we are enabled to give the following abstract), on Man with reference to Climatology.

After devoting some attention to the consideration of theories on the origin of man, the author proceeds—

We shall not further pursue this branch of the subject; for it is with man such as religion, civilisation, and social relations have made him, that we have, in a physiological and pathological sense, to do, in reference to the effects of climate on his organisation in health and disease.

On searching into the natural conditions of the human race, we find that the external agents which surround man, act differently on the divers groups of the human family; and a more minute investigation of the causes of these differences leads us to refer them to individual peculiarities.

In applying hygienic rules, it is useful and important always to bear in mind these peculiarities and differences. The conditions for preserving the health are not the same for the inhabitants of the West as for those of the South of Europe. The variety of temperaments, of age, of idiosyncrasies, hereditary predispositions, habits, and individual constitutions, ought always to be taken into consideration; and this rule extends itself to the choice of climate as a means of preserving the health and of curing its derangements.

The races which inhabit the centre and the North of Europe do not support the heat of a tropical climate with the same impunity as an inhabitant of Asia and Africa; and the southern races, transported into temperate and cold climates, require warmer clothing than the natives themselves.

Physicians and physiologists generally acknowledge four kinds of distinct temperament, under the designation of *Sanguine*, *Phlegmatic*, *Choleric*, and *Melancholic*. The persons who show the characters of these divers temperaments present, however, different predispositions to disease. The circumstances which may easily produce certain forms of disorder in an individual class, will not produce any effect on another. Still more, the same cause may, in persons of a different temperament, produce maladies of a different character.(b)

Persons of a sanguine temperament have a vascular constitution fully developed—a warm skin, with a high degree of organic sensibility, and are exposed to inflammatory diseases.

Those of a phlegmatic temperament are predisposed to diseases more or less connected with a weakened state of vital energy, and are subject to local congestions and to chronic diseases.

The choleric temperament, which displays an excessive energy in health and in disease, has a great affinity to the sanguine. Both, when they have diseases connected with the nervous system, have them in an acute form. *Mania* and complete *dementia* ordinarily take place among persons of this constitution.

The melancholic temperament has the same relation to the phlegmatic as the choleric to the sanguine.(c)

We have entered thus into the question of temperaments because the considerations evoked will serve as a guide when we shall have to point out and to recommend the qualities of climate suitable to different diseased conditions in reference to the different temperaments with which they may be found.

Before proceeding further, it is well to explain that by the terms of the programme of the Scientific Congress of France, we are bound to apply the general principles of medical climatology, now about to be examined, to the South-East and South-West of France. When, by-and-by, we shall come to treat of these climates in detail, we shall find that, although they are nearly in the same latitude, they differ *toto cælo* the one from the other, relative to their effects in health and disease.

For instance, the climates of the South-East and South-

(a) "De l'Homme, Principes de Climatologie Médicale et leur Application aux Climats Sud-Est et Sud-Ouest de la France." Par Sir Alexander Taylor (de Pau), M.D., Vice-President de la Troisième Section du Congrès Scientifique de France, Chevalier de la Grand Bretagne et d'Irlande, Chevalier de l'Ordre Allemand de la Couronne Royale 3me Classe, &c., Membre de plusieurs Sociétés Savantes.

["The Principles of Medical Climatology and their Application to the Climates of the South-East and South-West of France." By Sir Alexander Taylor, K.B., M.D., F.R.S. Edin., etc., etc., Pau.]

(b) "Encyclopædia Britannica," art. "Sanitary Science."

(c) "Encyclopædia of Practical Medicine," art. "Temperament."

West of France may be divided into two classes—those which are exciting, and those which are sedative.

In the exciting climates we invariably find more or less the following atmospheric conditions—viz., great dryness, an atmosphere highly electrical, the decided presence of ozone, and, during the spring, keen and irritating winds, as at Nice, Mentone, Cannes, Hyères, Montpellier, etc.

In the sedative climates we find a sort of neutral condition of atmosphere, moderate dryness, absence of communicable humidity, rarely positive electricity and ozone, and a comparative absence of wind, as at Pau and its surrounding zone.

In reference to temperament under these circumstances, would anyone who wished to stimulate the languishing functions of the body, to give activity to a lumbering circulation of the blood, to arouse the dormant energy of the nervous system in persons of phlegmatic and melancholic temperaments, recommend recourse to the sedative climate of Pau? Or would anyone, on the other hand, who wished to moderate muscular and nervous excitement, to appease inflammatory tendencies, and to give organic repose to persons of choleric and sanguine temperaments, with all these conditions staring at him, send such persons to exciting climates such as Nice, Mentone, Cannes, Hyères, and Montpellier?

Now for the question of medical climatology, in order to deduce some general principles applicable to men of different temperaments in health and disease.

The diversity in the character of climates is in general attributed to a combination of distinct causes, which may be reduced to two—the distance from the equator, and the height above the level of the sea. The latitude and the local elevation of the land have been considered as forming causes of climate; but the circumstances which modify this arbitrary rule ought not to be neglected in the appreciation of climate. For instance, two-thirds of the surface of the globe are covered with water—a transparent body—and an opaque body like the earth. These absorb and give off by radiation the solar heat in a manner very different, although that heat falls on them at equal angles. It is evident that the proportion of land and water on each part of the terrestrial surface ought singularly to modify the temperature of such and such region. The radiation of heat from rough and polished surfaces under a sky without clouds is very different. The opaque and rough surface of the earth loses more rapidly its temperature by radiation than the surface of the sea. The portion of the ocean covered with ice and snow, relatively less than that of the earth, ought to produce a difference of temperature in places under the same latitude.(d) The sea is not so quickly heated by the summer's sun as the earth, so the sea is fresher in summer; and as the earth cools sooner than the sea in winter, the air of the sea is hotter and tempers the rigour of the season. Compare, for instance, the mildness of the climate of the British Isles with the climates of Sweden and the North of Germany in the same parallel. This difference is occasioned by the oceanic currents which urge to the coasts the waters heated by the summer.(e)

It is very important to notice a principle called *ozone*, frequently remarked in the atmosphere under certain circumstances. It is supposed to influence human health very much. It has a great affinity with oxygen, with which it enters into combination, and abounds under the same atmospheric conditions which produce positive electricity. Ozone is found principally on the sea or near to the sea, and the winds which blow on the land coming from the sea bring a large quantity of it. It could be demonstrated that the sea at a little distance from the land contains the largest quantity of ozone. On the land and on the coast against which the winds blow there is *much more* ozone than in the valleys or any other place distant from the sea. In general, there is *very little* ozone near to towns and inland places.(f)

The quantity of ozone in the atmosphere not being excessive, the principle is purely a mild stimulant, which gives a salutary activity to languid functional action. An excess, however, of ozone gives a dangerous impulse to affections of the lungs and bronchial tubes; and this sometimes happens at the health-stations of the South-East of France.

It is right here to mention the influence of clouds on climate. The different aspects of the sky exert a real influence on climate. Clouds intercept a great part of the light and heat of the sun,—so much so, that, all things being equal, a country has on an average a higher temperature when clouds are rare, and a greater electric influence, tending to a maximum or *positive* state. The atmosphere of countries so placed is exciting to nervous persons and to the circulation of the blood, as in the South-East of France; but in countries subject to south-west winds, and with a sky often obscured by clouds, rain falls in abundance, the electric phenomena are almost *negative*, and the conditions of a non-irritant air calm the nervous system and modify the force of the circulation, as at Pau.

The only other circumstance we shall mention connected with general climatology is the influence of winds on climate.

Strangers to the topography of Bearn, who have the habit of confounding under the generic denomination of *south* the South-East and South-West of France, cannot conceive, *à priori*, why the circius, the bise, and the mistral, which desolate certain portions of Provence and Languedoc, do not exert an influence on Pau and its surrounding zone, which is situated nearly in the same latitude. Nevertheless, an examination of the countries from which these winds come, and their geographic direction on the map of France, demonstrates clearly the impossibility that they should be felt at Pau. The bise passes by the mountains of the Haute-Loire, of La Lozère, and the Cevennes. The mistral follows a direction entirely opposed to that of Pau, and blows at a distance of seventy to eighty leagues from that town. The east wind and its varieties, so disastrous to the countries where it rages, are hardly felt at Pau. Its mildness in the South-West of France is attributed to the circumstance that, after having quitted the Mediterranean at Narbonne, it passes through an extensive country, dry and well sheltered, in which it loses the humidity with which it was impregnated in traversing the Gulf of Lyons and the marshes of the Aigues Mortes.(g)

In the conditions of the atmosphere, etc., which we have now defined, particularly in the countries on the sea or closely neighbouring to it, such as in the winter stations on the Mediterranean in the south-east, one finds all the states which produce ozone. On the contrary, in an atmosphere at a great distance from all seas, surrounded by valleys, and in the comparative absence of wind and of positive electricity, we find all the conditions necessary to interrupt the generation of ozone.

These abstract conditions fix in a certain manner the respective characters of these climates. In the south-east the abundance of positive electricity and of ozone gives to its climate exciting properties; in the south-west, on the contrary, the tranquil air, negative electricity, and the relative absence of ozone, produce a calming and sedative air.

It is frequently said that the climate of Pau is very relaxing. A relaxing climate, to have existence, must have two essential principles associated together—viz., an elevated temperature, and the presence of communicable damp in the air. The climate of Pau does not answer to these requirements.

It now only remains for us, having in view what has been said on the subject of temperaments and the essentially differing qualities of the climates of the South-East and South-West of France, to indicate the localities where the properties of the respective climates may be logically utilised.

1. The first effect of the climate of Pau on a stranger is sedative, diminishing the energy of the nervous system, and influencing, after a sojourn more or less prolonged, the arterial circulation, rendering the pulse slower and softer. These are the qualities which render the climate of Pau favourable to persons of sanguine and choleric temperaments and of an unusually nervous and inflammatory constitution.

2. At the winter stations of the South-East of France, the qualities of the climate are diametrically opposed to that of Pau, since their atmosphere is most frequently charged with positive electricity and ozone. The results on human organisation are entirely dissimilar, whether in health or disease. Indeed, frequently are persons of nervo-sanguine temperament obliged to subject themselves to a strict *régime*. They partake sparingly of animal food and wine, and use cooling beverages. On the contrary, persons of phlegmatic and lymphatic temperaments, difficult to excite by ordinary means, and in whom the circulation of the blood is weak, remark a great increase of tone in their organisation. The nervous and muscular systems acquire a renewed energy; a feeling of *bien-être* replaces the *malaise*, and even the principal of their sufferings, the inevitable result of a languishing state of the animal functions.

(d) "Encyclopædia Britannica," art. "Climate."
(e) Dr. Scoresby Jackson's "Climatology."
(f) Admiral Fitzroy's "Weather Book."

(g) "Essai sur Montpellier," par Eugène Thomas.

## ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

The following are the questions which were set at the recent examination of candidates for her Majesty's Army, Navy, and Indian Medical Services:—

*Anatomy and Physiology.*—1. Classify the various kinds of articulation, and give an instance of each kind. Notice also those which illustrate the different forms of lever. 2. Give the origin, course, relations, and distribution of the glosso-pharyngeal nerve, and describe the dissection required to expose it in its course below the base of the skull. 3. Enumerate the different kinds of glands that are found in the small and large intestines, and describe their minute structure and the physiological functions assigned to them. 4. Give the dissection required to expose the supinator brevis muscle, and mention in the order in which they appear the parts that must be removed to do so. 5. How would you proceed to ascertain the presence of urea and of sugar in the blood? 6. Describe the cochlea—(1) its osseous structure, (2) its membranous portion, and (3) the way in which the cochlear division of the auditory nerve is distributed.

*Surgery.*—1. Describe the symptoms of concussion, the result of a fall or blow on the head. What subsequent symptoms might arise which would lead to an unfavourable prognosis; and upon what conditions would such symptoms depend? State the treatment of a case of concussion. 2. A man has general enlargement of the testicle. State the symptoms which would indicate that it was a case of medullary cancer, strumous disease, or one of simple chronic inflammation. 3. Describe the general and physical signs by which rupture of lung may be diagnosed in a case of fracture of the ribs, and the treatment to be pursued in such a case. 4. Describe the symptoms of traumatic gangrene, supervening on compound fracture of the leg; and the treatment, both local and general. 5. What are the earliest evidences of strumous disease of the hip-joint in a child? What treatment should be adopted, locally and constitutionally? 6. Mention the common forms of hernia met with in the inguinal region, in infants of both sexes. What treatment should be adopted in a case of undescended testicle in a child, the subject of inguinal hernia?

*Medicine.*—1. What are the chief pathological changes in the serous membranes? Give the symptoms of inflammation of the pericardium and of the peritoneum, and state what are the causes of these affections. 2. State what is meant by the following terms, and what are the conditions in which the sounds referred to are heard:—Venous hum, mitral obstructive murmur, aortic regurgitant murmur, pulmonary murmur, cracked-pot sound, crepitation, metallic tinkling, bronchophony. 3. Describe fully a case of chronic Bright's disease commencing insidiously, and terminating by uræmia. The probable causes and the presumed pathological changes going on in the kidneys must be given as well as the symptoms. 4. Describe the following cutaneous eruptions:—Sudamina, herpes zoster, urticaria, rupia, psoriasis guttata. 5. What are the principal astringents? Give the chief pharmacopœial forms and doses of each drug you name, and state in what diseases it is chiefly employed. 6. What are the chief causes of menorrhagia and of dysmenorrhœa? Give the treatment in each case.

*Zoology.*—1. To what order of mammals does the genus *Felis* belong? Give its characters, enumerate its principal species, and state their geographical distribution. 2. State in general terms the structure of the eye in the different classes of the animal kingdom. 3. Describe the nature and mode of growth of the horn in the order *Ruminantæ*. 4. To what class of animals does the genus *Helix* belong. Give its most important characters, and describe its respiratory and generative organs. 5. Describe the wings of birds, bats, and flying squirrels, pointing out the homologies of their parts.

*Botany.*—6. Explain the terms epiphyte and parasite, and give an account of the different kinds of parasites in plants. 7. Give the the characters of the natural order *Orchideæ*. 8. What are the most important useful products yielded by the natural order *Leguminosæ*? State the name of each, and the part of the plant from which it is obtained. 9. What are the most important characters of algæ, lichens, and fungi? 10. How do you distinguish volatile and fixed oils? By what orders of plants are the most important forms of each yielded?

*Physics, etc.*—11. What is meant by the term specific gravity? Describe the nature of the processes by which it can be determined in solids, liquids, and gases. 12. Explain the nature of vinous and acetous fermentation. 13. Explain the terms equator, ecliptic, tropic, latitude and longitude, and state the causes of the differences of temperature in the northern and southern hemispheres, and in the torrid, temperate, and arctic zones. 14. Explain the causes of the differences of climate on the eastern and western coasts of America, Europe, and Asia. 15. What is the geographical distribution of the chalk formation? Give the general character of its fossils, and explain the mode in which it has been formed.

## FROM ABROAD.

### Professor Thiry on Infantile Syphilis.

From an interesting clinical lecture on this subject, delivered by Prof. Thiry at the St. Pierre Hospital, Brussels (reported in the *Presse Méd. Belge*, August 9), we make some extracts, passing over, from want of space, the particulars of the case which led to its delivery.

Hereditary syphilis, he observed, may occur in different manners. It may be produced at the period of fertilisation of the germ, when both parents, or only one of them, may be syphilitic. When the husband alone is syphilitic, the fœtus is syphilitic before its mother, she only becoming so consecutively. The blood, while nourishing the infant, becomes impregnated with the syphilitic poison, and is thus transmitted little by little to the mother. If this be not borne in mind, difficulty may arise in explaining maternal syphilis, the portal by which this has gained admission not being discoverable. A woman in perfect health at the time and after conception, who has never presented the slightest initial acquired symptom, may become syphilitic solely from her infant procreated by a syphilitic father. Still, the participation of the father is less general than that of the mother, and syphilitic men have been known to impregnate women who have given birth to healthy children. It is, however, proper to observe that this especially occurs in cases of old syphilis. If the mother be syphilitic at the time of conception, the product will certainly be syphilitic, and that from the earliest period of its organisation; for syphilis consisting in an alteration of the blood which serves for the development of the fœtus, this necessarily engenders the disease.

The conditions as regards the infant are very different, according to the epoch at which the syphilis is produced. Created syphilitic, through the agency of the father or the mother, the fœtus will never reach its full time, abortion surely taking place, unless, indeed, energetic medical intervention be employed. If the mother be infected she will then be cured at the same time as the infant, and if she is not syphilitic, the infant may be cured without infecting the mother, the diagnosis in this latter case being often difficult, unless we are acquainted with the condition or antecedents of the father. If the cure is accomplished, the pregnancy may pursue its regular course and the child may be born at full time in excellent health. But it may happen that at the period of impregnation both father and mother may have been in perfect health, and only at an advanced period of pregnancy the mother has become the subject of chancrous contamination terminating in syphilitic induration. Although the syphilis is here manifested later, the infant may none the less suffer from its effects. It is to be observed that in the advanced period of gestation, the intervention of the father is no longer direct. Suppose that the infection of the mother takes place in the fifth month of pregnancy, the infant will certainly become affected; but as abortion is at this period exceptional, the infant being able to offer more energetic resistance to the syphilitic poison, the child may be born at full time, then presenting, however, all the characteristics of congenital syphilis. It may be still saved by submitting its mother to mercurial treatment, but this is far from being a general rule. If the syphilitic infection take place six weeks before delivery, the child may be born, having in it the germ of the disease, with all the signs of vigour and good health; but in a few weeks or a month or two, strong as it appeared at birth, it will fade away and become syphilitic. The mother must be carefully examined for evidence of the terrible

diathesis which she has passed on to her child, and the latter may often be cured by submitting her to mercurial treatment.

Infantile syphilis may also be produced in another way. The pregnancy may have been quite regular; but the mother at the time of delivery may have had a chancre in a state of progress at the vulva, vagina, or cervix, and the infant while traversing the passages becoming contaminated, a chancre afterwards appearing at the anus, the mouth, or some part of the body which was excoriated during labour. The chancres both in mother and child terminate in initial induration, and syphilis is the consequence. It may happen in this case that the infant alone has syphilis, the chancres of the mother healing by simple cicatrisation.

Infantile syphilis may also be the consequence of suckling, and the greatest care and circumspection are required on this account in the choice of a wet-nurse. When, from neglect of precautions, a healthy infant has thus become contaminated and syphilitic, we should be careful not to dismiss the nurse if she have a sufficient supply of milk, for she may be made the instrument of curing the child she has infected, by being submitted to a rigorous mercurial treatment, becoming cured herself at the same time. If this course be pursued with conviction, the infant will be restored to health.

Finally, syphilis of new-born infants may proceed from a source that is not readily discoverable. This mode of propagation may be termed "indirect." The parents are healthy, the nurse, when there is one, is quite well, and the infant, when born, exhibits no trace of hereditary disease. Nevertheless, without any appreciable cause, there appear one or several ulcers of a bad aspect, generally at the labial commissure, the margin of the anus, or the navel, and sometimes at the velum or in the throat. They cicatrise, and all seems over; but in the course of a few days the infant's countenance becomes faded, it no longer takes the breast as before, cries often, and rapidly wastes away. The voice is altered, the nasal mucous membrane secretes abundantly and ulcerates, a papular eruption appears, and the palms of the hands and soles of the feet are covered with parchment-like scales. The whole physiognomy takes on a strange aspect, and, in a word, the child exhibits all the symptoms of syphilis. In such cases, if diligent search be made at the spots where the ulcers appeared, the characteristic induration, termed by Prof. Thiry "syphilioma," will be found. In answer to the question whence came these ulcers and consecutive indurations, he observes that is not always discoverable, and the source is frequently conjectural. Sometimes the kiss of a stranger, the contact with soiled and infected objects, the use of an infected spoon or glass, etc., have been adduced in explanation. M. Thiry mentions a case which fell under his own notice, in which a new-born infant became infected through a woman having a chancre on the lower lip kissing it on the buttocks. A child infected under these and similar circumstances becomes easily the means of propagating the disease, inasmuch as its own parents have no suspicion of its unfortunate condition.

Prof. Thiry is a strong advocate for the mercurial treatment of syphilis, in which he alone has any faith, employing in these cases small doses of corrosive sublimate and mercurial frictions for the mother. While the infant is undergoing treatment by means of milk thus mercurialised, he also prescribes for itself 100 grammes of emulsion of bitter almonds to which the yelk of an egg and two millegrammes of corrosive sublimate have been added. Of this three teaspoonfuls are given daily, while sublimate baths are also employed. As to iodide of potassium, in his opinion it possesses no power whatever over syphilis, although, when mercury has been excessively employed, it may be usefully employed in combating some of the effects thus produced. Frequently the symptoms which it is administered for in the tertiary stage of syphilis have nothing whatever to do with syphilis. As a means of combating true syphilis it is absolutely useless.

### The Paris Cemeteries.

The Paris cemeteries being well-nigh gorged with the dead, the Municipal Council has been engaged for some time in an active discussion on the future provision that is to be made. After a warm debate, those who were favourable to the formation of a large cemetery at a considerable distance from the capital have gained their point, and it has been determined to construct one at Méry-sur-Oise, of about 800 hectares in extent. This is to be connected with Paris by means of a special railway, having several mortuary stations in connexion with it, so as to bring it within easy access of the various districts of the metropolis. One thing which renders the present cemeteries more mischievous to the health of those who live near to them than they otherwise would be, is the great number of exhumations which take place either in the pursuit of justice or at the request of families. These amounted in 1869 to 5253, in 1871 to 6870, in 1872 to 6870, and in 1873 to 6002. A still more objectionable practice, which is to be discontinued in future, is the resumption every five years of the graves that have been leased out for that period, as well as of the gratuitous trenches. These are then employed for new interments. In 1865, 45,208 burials took place in grounds that were thus resumed in 1871; in 1866 there were 43,320, resumed in 1872; and in 1867, 39,284, retaken in 1873. From the time of the first opening of the Paris cemeteries, now about sixty years since, they have received, in round numbers, 1,400,000 bodies. At the present rate of the increase of population, the deaths amounting to an annual mean of 45,000, the new cemetery will have to accommodate 900,000 within the next twenty years.

The Paris Municipality has, in imitation of the authorities in various parts of Italy, Switzerland, and Germany, determined to give cremation a trial, and intends to apply for legislative powers to render its practice optional.

### New Theory of Scorbutus.

M. Villemin has occupied the attention of the Académie de Médecine during its two last meetings with a very long, almost prolix, memoir on the "Causes and Nature of Scorbutus," his object being in the first place to show by means of an exhaustive bibliographical examination that the various causes assigned by the immense number of authors who have written upon this disease are for the most part erroneous. The very abundance of causes that have been assigned—*e.g.*, cold, humidity, salt food, privation of vegetables, etc.—proves that the real one has not been found. Many of these are quite secondary in their influence, and can at most be considered as accessory. These causes can never explain the epidemic visitations on record, and the long periods which have ensued without any recurrence of these. The influence of fresh vegetables also in arresting epidemics has been erroneously assumed, while the real ameliorating agency—the passage from within the epidemic circle (*foyer*)—has been overlooked. The disease is essentially epidemic or endemo-epidemic, and is never met with in the sporadic condition. It is a miasmatic and infectious disease, having its habitat especially on the shores of the North Sea and the Baltic. Of the same nature as cholera or typhus, it may be as easily developed on land as at sea, appearing among great agglomerations of persons, whether in camps or in prisons, and prevailing over large tracts of country in the most opposite hygienic conditions. While admitting that scorbutus is due to a specific miasmatic principle, we must recognise that there are various adjuvatory causes which exert their influence on its production and extension—such, namely, those which have been erroneously considered as the primary causes. Speaking of the great resemblances between typhus and scorbutus, and especially in relation to their etiological analogies, M. Villemin observes—"It is remarkable how often we meet with scorbutus associated with typhus under a crowd of circumstances; and the frequent simultaneousness of these two scourges leads to the supposition that they originate under similar conditions. In fact, vessels, bagnios, prisons, camps, besieged villages, barracks, hospitals, etc., are their domiciles in common; war, famine, poverty, misery, are their generators; and populations that are agglomerated, hemmed in, and deteriorated by disease, fatigue, and privations are their victims."

Of course this doctrine will not be readily received, and will give rise to much discussion at the Academy; but at all events, the imposing array of facts, marshalled by M. Villemin in some hundred pages of the *Bulletin*, are well worthy of attention.

Absence of the Corpus Callosum, without any Intellectual Disturbance.—Dr. Malinverni, Professor of Pathological Anatomy at Turin, gives the detailed description of the brain of a man, forty years of age, who died of a gastro-enteritic affection. During life he had never exhibited any deficiency or perversion of intellect, and yet after death the corpus callosum and septum lucidum were found to be entirely absent.—*Union Méd.*, August 11.

## REVIEWS.

*Le Psoriasis Buccal.* Par le Dr. M. Debove, Interne des Hôpitaux de Paris, Répétiteur à l'Ecole Pratique des Hautes-études, Membre de la Société Anatomique. Paris: Librairie, F. Savy, Rue Hautefeuille 24. Pp. 54; two coloured drawings. 1873.

This monograph has been some time awaiting notice at our hands. It treats of a subject which has been almost overlooked till quite recently. Some ten years ago Mr. Hulke drew attention to it under a different name—viz., ichthyosis linguæ. During the past winter, attention has been directed again to the same disease under the name given to it by Mr. Hulke—(1) in a paper published in the *British Medical Journal*, February 21, by Mr. Morris, wherein he reports three cases which had occurred under him in 1873 at the Middlesex Hospital; (2) in a communication made by Mr. Fairlie Clarke to the Medical and Chirurgical Society on February 24, in which nine cases were related at length, some having been under the author's own care, and eight others briefly noticed in an appendix, and some general remarks upon the disease and its treatment were added. Both these papers were accompanied by drawings.

In the little work now under notice, Dr. Debove reports twenty-four cases of what he calls "psoriasis" of the tongue, lip, and cheek, and has furnished two coloured drawings very typical of the condition of the tongue when affected by the disease. The author, after referring to the hitherto pretty general neglect of psoriasis buccal in Germany and France, and to the errors which have arisen in diagnosis—from the want, no doubt, of a systematic description of it,—gives his definition of the disease as follows:—"Buccal psoriasis is a chronic affection of the mouth, more often situated on the dorsal surface of the tongue and the internal aspect of the lips and cheeks."

He adopts the name "buccal psoriasis given by M. Bazin to this affection, not because he considers it as identical with psoriasis of the skin, but because the term gives a good idea of the aspect under which it presents itself." He rejects the expression "pityriasis," because it suggests the idea of the existence of very delicate and fine scales, which is not the case in buccal psoriasis. He rejects the term "ichthyosis, adopted by English authors, because ichthyosis is a congenital affection, a deformity of the integument, while buccal psoriasis is an acquired affection,"—an insufficient reason to our minds for not adopting the name, especially when it is known that this condition of the tongue and cheeks sometimes affects patients who are the subjects of congenital ichthyosis of the skin, and when, too, it is remembered that ichthyosis of the skin occasionally appears late in life.

But, by whatever name it is called, we fully endorse the author's statement that the disease is a frequent one, and that its frequency will be proved as soon as it is better known. All diseases newly described seem rare, but they become frequent in proportion as they are more readily recognised.

A short historical account of the disease precedes the description of it. From this history it appears that our countryman, Samuel Plumbe, was the first to describe a case of the kind. In his "Practical Treatise of the Diseases of Skin" (fourth edition, London, 1837, pp. 514 and 515), after speaking of local ichthyosis following repeated friction, Plumbe says, "I have observed a morbid development of the papillæ of the tongue in a healthy man, which I look upon as being precisely similar in its nature to localised ichthyosis of the skin."

M. Debove's description of the symptoms of buccal psoriasis accords completely with the descriptions given by the English observers. He very pithily remarks upon the different appearances it presents by saying—"Its tints vary; sometimes it is of the brilliant silvery white of psoriasis of the elbows and knees; generally it is of a less brilliant white, resembling in appearance granulations which have been painted with nitrate of silver." He notices, too, a feature which we think of much importance, as being, perhaps, the first step in the progress of the disease towards epithelioma: "Some cases, even when the disease is extensive, are smooth; that is, there are no fissures nor cracks upon the surface. But more frequently it is not so; the tongue presents a certain number of furrows, some of which are superficial, and appear to be only the normal furrows somewhat exaggerated; others, on the contrary, are large, and at the bottom of them one sees the mucosa ulcerated and bleeding. They may be deep enough to lodge a pea." In some patients, during mastication, small morsels of food lodge in these furrows, causing very severe pain, and necessitating very frequent rinsing of the mouth.

The mechanical way in which these rents or fissures are produced is intelligible enough. The epithelial coating of psoriasis is a solid layer, which covers the dorsal face of the tongue, and is broken during the movements of the organ. The rent is not always limited to the epithelium, but extends into the mucosa to a greater or less depth, and produces linear ulcerations. There occur, besides, other ulcers which are formed, not by the extension of a crack or fissure, but by the shedding of epithelium. These ulcers are often of a rounded form, presenting variable diameters, which, after a certain time, are covered over by new epithelial layers.

M. Debove reports the result of his examination of diseased parts from two cases—one a case of cancroid of the tongue engrafted upon psoriasis of the tongue; the man died; another a case of psoriasis of the cheek with cancroid. He considers as these cases were complicated with cancer, the tissues examined, though taken at a distance from the cancerous deposit, still owe some of their changes to this complication. But, putting aside accessory features, his examination proves two facts—(1) thickening of the epithelium, (2) thickening and sclerosis of the corium of the mucosa. The thickening of the epithelial layer is proved clinically when we see it detached; the thickening and sclerosis of the mucosa is proved by applying the finger to the indurated parts from which the epithelium has been detached.

M. Debove finds very marked differences between the anatomical lesions of cutaneous psoriasis and those of lingual psoriasis. Psoriasis of the skin, he remarks, shows only an infiltration of embryonic material amongst the papillæ, and never such cirrhosis as occurs in lingual psoriasis, and which, he might have added, occurs in severe cases of ichthyosis of the skin.

Amongst the causes of the disease the author seems to attach particular importance to the influence of tobacco, which he says has greater power than syphilis; in fact, out of the twenty-four cases given at the end of the pamphlet, nine only ever had syphilis. The irritant action of the smoke or the juice of tobacco is supposed to have a greater effect for evil than the mere heat; but as the immense majority of syphilitics and smokers are not attacked by the disease, a special evil must be necessary for its development, even under the influence of such irritants. This evil, the author thinks—following the opinion of M. Bazin,—is to be found in persons with a tendency to arthritic diseases.

So far as the treatment of the disease goes, the author's experience is not more favourable than that of others who have studied the subject, and he of course lays due stress upon the frequency with which the affection terminates in cancerous ulceration of the tongue.

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*Skin Diseases of Constitutional Origin.* By J. Wilkin Williams, M.R.C.S., etc. London: Mann Nephews, 39, Cornhill. 1874.

As previous editions of this work have been fully noticed in our columns, we have only one or two remarks to make on the present issue. Its principal defect seems to us to lie in the category of "constitutional skin diseases" being made rather too wide, including as it does some skin diseases which are not constitutional—for example, mammary eczema due to scabies—as well as some diseases which are not skin affections at all, such as gonorrhœa, and scrofulous inflammations of the mucous membranes. Mr. Williams is also scarcely logical in retaining Bazin's system of classification of "constitutional" skin diseases into "dartrous" and "arthritic," after the wholesale condemnation of it which he offers at page 53, and with which we in the main agree. It seems to us that it is better to found one's classification on anatomical peculiarities or clinical characters, and to admit one's ignorance of the etiology of many skin diseases, than to adopt a system which rests on so hypothetical a basis as Bazin's, in which Mr. Williams himself confesses (p. 54) "that with perhaps a very few exceptions such co-existence (of a gouty or rheumatic diathesis) with the skin affection is merely accidental, and implies no essential relation between the cutaneous and the systemic disorder."

We question whether the picture drawn by the author at page 23, of the results of eczema of the genitals, is not too gloomy and sensational; and we were unaware before that

the tubercles of molluscum (? contagiosum), p. 101, contained matter identical with pulmonary tubercle.

The best part of the book is that devoted to treatment, which contains much common-sense advice. There might, however, be differences of opinion as to the propriety of withholding mercurial treatment in a patient with an early secondary syphilitic rash; and it is difficult to see why game or made dishes should be forbidden to a syphilitic patient. Surely jugged hare or roast pheasant are quite as harmless *quoad* digestibility as beef or mutton; and how much more tempting to a sick palate some of the so-called "made dishes," or *entrées* of the French, often are, than much of the "plain, wholesome, nutritious food" of the British housekeeper.

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*Annuario delle Scienze Mediche.* Riassunto per i Dottori P. Schwardi e G. Pini. Anno iv. il 1873. Dottor Francesco Vallardi, Edit. 1874.

*Year-Book of the Medical Sciences for* 1873. Edited by Dr. Francis Vallardi. Milan. 1874.

This little work contains in a compact form brief notices of nearly every important contribution to medical science during the year 1873, as well as short reviews of medical and scientific books of sufficient length to give an idea of their value. Dr. Sanderson's "Handbook for the Physiological Laboratory," and Dr. Parkes' "Hygiene," as well as other British works, are alluded to, as are also the most recent German works; and there are drawings of new surgical instruments and appliances. A very carefully compiled series of obituary notices contains references to the lives of Dr. Bence Jones, Mr. Baker Brown, Dr. John Murray, and others. A list of medical journals published in Italy, France, Germany, and England, which is given at page 453, surprises us by the fact that the largest number—forty-seven—which emanates from any one country are of Italian origin; even Germany is far behind. Such energy speaks well for the future of medicine in the country of Morgagni. Perhaps the most interesting feature to us as Englishmen in this excellent little book is an engraving of a monument by Giulio Monteverde, an Italian artist, to Jenner, the discoverer of vaccination. The latter is represented in the act of inoculating his own child for the first time with vaccine lymph. The statue is described by the reviewer as one worthy of a place among the treasures of the Italian nation, "to perpetuate the memory of him who, as Massimo d'Azeglio says in his 'Reminiscences,' has saved the lives of God knows how many millions of men, and assuaged the grief of their parents." It is sad that there should be persons in this country with whom such words would fail to find an echo.

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*Short Lectures on Sanitary Subjects.* By Richard J. Halton, L.R.C.P. Edin. and L.R.C.S.I., etc. London: Baillière and Co.

This book, consisting of twelve lectures, is intended not so much as a treatise on public health, but is published with the view of educating the public on sanitary subjects. Technical terms have been avoided as far as possible. The subjects discussed are—pure air, disinfectants, food, clothing, ventilation, cleanliness, training of the young, epidemics, and overcrowding. The author illustrates in a forcible manner the evil effects of overcrowding. He shows that the mechanic, failing to obtain a sufficiency of pure air in overcrowded workshops, his health suffers; failing also the resuscitating influences of pure air, he takes to drinking, which at first proves a useful substitute; ultimately he drinks to excess, and ruins his health. Let such a man stand in a well-ventilated workshop, and live in a properly constructed house, not overcrowded, and the temptations to drink will be considerably less. We cannot agree with the author that it is desirable to sell tainted or diseased meat at a cheap rate to the poor.

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Case of Bulimia.—Justine D., aged 43, has just died at Paris from an affection of the chest. She has been long known there for her enormous appetite, consuming a mean daily quantity of six and a half pounds (French) of bread, and a pound and a half of meat. Bread was the principal article of nourishment, and when she had a real "bellyful," she consumed as much as nine pounds. She gained two francs and a half a day as a seamstress, and had also a small income, which, with one having her propensities, was very necessary.—*Union Médicale*, August 22.

## PROVINCIAL CORRESPONDENCE.

### BIRMINGHAM.

August 19.

Small-pox Accommodation—Mr. Alfred Baker and the Council of the Royal College of Surgeons—Queen's Hospital Debt—New Warden of Queen's College—Nuneaton Midwifery Case—Dr. Buchanan's Report—Health of Birmingham.

To provide for the better accommodation of small-pox cases, and to remove the stigma that attaches to any connexion, however remote, with poor-law administration, the Town Council have made arrangements with the guardians for the loan of their buildings which have hitherto been used for patients suffering from this disease. At first it was proposed that the property should be sold to the Council, but this was objected to by the Poor-law Board on the ground of illegality.

The election of Mr. Alfred Baker to the Council of the Royal College of Surgeons has given great satisfaction to the profession here and in the provinces. It is looked upon as an honour well bestowed, earned, and merited.

We are happy to report that the Rev. W. N. Poulton has just been selected as Warden to Queen's College. He was formerly for a long period one of the tutors of the College, and was very popular with the students. We believe that he will make an excellent warden, for he is an able administrator, and well acquainted with the character and requirements of medical students. The debt which has been an encumbrance to the Queen's Hospital has dwindled down to £1499, and this, it is believed, will be speedily cleared off.

The extraordinary midwifery case at Nuneaton, which is still *sub judice*, has created the greatest interest and curiosity here, inasmuch as the gentleman concerned therein was at one time a student at Queen's College, and attended the courses of lectures with exemplary punctuality. He even obtained the prize for proficiency in midwifery, and the professors of that department thought highly of him. It is to be hoped, for the sake of the profession, that malpraxis will not be established.

Dr. Buchanan's report on the sanitary condition of Birmingham and small-pox has just been issued, and from it we present the following extracts:—"It began to be epidemic in the second quarter of 1871, and in that year killed 61 persons. Increasing in 1872, it caused 298 deaths. In 1873 it was less, but still continuously prevalent, and caused 122 deaths. And in the first quarter of the present year it has been fatal to exactly the same number (122) of persons as in the whole of 1873. The increase of small-pox since the beginning of the present year deserves to be more precisely stated. In periods of four weeks, from January 3 to the time when this inquiry was begun, the deaths caused by this disease in the borough have been as follows:—To January 31, 25; to February 28, 41; to March 28, 45; to April 25, 58; and to May 23, 66. This last is the highest figure reached on the death-record of any month since the epidemic began. To these figures, again, must be added the deaths of borough paupers in the Aston Union Small-pox Hospital, amounting to 1 in 1871, to 7 in 1872, to 6 in 1873, and to 23 in the first five months of 1874. In the Urban Sanitary District of Aston Manor 23 deaths from small-pox were registered in the district in 1872, besides 5 deaths in persons taken from the district to the Union Hospital; only 3 were registered in the district in 1873, and 1 in the hospital; and in the first four months of 1874, 19 deaths of residents in Aston Manor have been registered in the district, and 1 in the workhouse. The Rural Sanitary District of Aston contains the small-pox hospital of the Union, and of the 51 persons dying there of small-pox between 1871 and May 31, 1872, only 7 had previously been residents in the rural parts of the Union. Besides these, however, several persons died at their homes in the district; and the largest mortality has been reached during the present year. In the first five months of this year, 11 residents in the district have died, 8 of them at their homes, and 3 in the Union Hospital. For Birmingham Borough the sanitary inspector has kept a record of the non-fatal cases brought to his notice; and this number is found to bear an almost constant ratio ($6\frac{1}{2}$ to 1) to the number of deaths. On the subject of the existing hospital accommodation for ordinary infectious disease, he says:—The hospital accommodation which is needed for the purpose of staying the spread of infection through a com-

munity may exist with this for its primary object, or this object may be incidental to other primary ends, which hospitals are intended to attain. Thus, charitable hospitals provided primarily in the interests of the sick may, in so far as they receive cases of infectious disease, and manage such cases with proper precautions, operate to prevent the spread of infection. Again, hospitals attached to workhouses, provided essentially for the relief of destitution, may also give to the out-door pauper class the means of isolation. But hospitals that, apart from private charity, and apart from poor-law relief, shall be provided essentially for preventing the spread of contagion among communities, are particularly within the province of sanitary authorities; and, for the last eight years, such authorities have had power to erect such hospitals, and to remove into them people who are sick of infectious disease, and are without proper lodging or accommodation. For Birmingham and its neighbourhood three charitable hospitals receive cases of infectious disease. The General Hospital makes sixteen beds in two wards, essentially for scarlatina or diphtheria, or enteric fever; small-pox is here refused. The Queen's Hospital has a separate fever building, which in 1865 was used for small-pox, but has since been in use for ordinary medical and surgical cases. At present it makes only four special beds for infectious fevers, but it receives enteric fever into its ordinary wards. The Children's Hospital has one twelve-bedded ward for scarlatina, and a small ward, with three beds, for diphtheria; and it receives a few enteric fever cases into its general wards. Here, again, small-pox is not admitted. The charitable hospitals, together, then, have a total of some thirty or forty beds for infectious cases. The last published reports of these institutions show that 89 cases of scarlatina, 17 of diphtheria, 62 of enteric fever, 42 of febricula, besides a few cases of other contagious disease, were treated in these thirty or forty beds in the course of a year. The diseases here named are those which, along with small-pox, it is, in the interest of the public health, most important to isolate in hospitals. In one year, therefore, these hospitals gave assistance to the public sanitary service to the extent of isolating 210 cases of these infectious diseases. Poor-law hospital provision, in ordinary times, is made as follows:—For the parish of Birmingham there is at the workhouse, at Winson-green, a detached building of four wards, with ten beds in each. This accommodation serves for infectious diseases occurring in the workhouse, and to a small extent for those which occur among out-door paupers in the town. During the last six years, 35 cases of scarlatina and 105 of enteric fever have been treated here, making a total of 140, or an annual average of 23 infectious cases. As about one-third of these were among workhouse inmates, the advantage to the public sanitary service of the borough from this permanent provision is represented by the isolation of only some sixteen cases a year. For the parish of Aston, poor-law hospital provision is made for the parts of the union outside as well as for the parts inside the borough, at the new workhouse at Gravelly-hill, where four wards, with twenty-four beds, were this year opened for infectious cases. These beds are for infectious disease occurring in the workhouse, and, to some extent, for such disease occurring among out-door paupers. Taking one year with another, it may be computed that, in the sanitary district of the borough of Birmingham, there are about 800 deaths annually from the four diseases—small-pox, scarlatina, diphtheria, and enteric fever taken together; and, on the reasonable estimate of ten attacks to one death, these four diseases probably attack some 8000 people in the average year. For Aston Manor, the yearly number of sufferers under these four diseases may be taken at about 800; and for Aston Rural Sanitary District the yearly number is something above 300. Of this number of dangerously infected sick persons, it is inevitable that a proportion must be so circumstanced that they cannot be treated in their own homes without communicating their infection to others, and thus promoting the spread of epidemics."

The death-rate of Birmingham is anything but encouraging; it stands as high as 35 in the 1000. The prevailing zymotic diseases are scarlet fever and small-pox, the latter still existing with unabated violence.

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The average mortality of the residents of the borough of Brighton for the last quarter ending June 30 was at the rate of 16·8 per 1000 per annum, the general return for England and Wales being 20·8.

## GENERAL CORRESPONDENCE.

### SIR JAMES PAGET ON VENESECTION, AND DR. REYNOLDS ON LIFE AND DARWINISM.

LETTER FROM MR. THOMAS STOKES.

[To the Editor of the Medical Times and Gazette.]

SIR,—From the opprobrium cast upon the old practitioners by their successors, many of whom boast of not possessing a lancet, we of the past may be glad to be defended by so distinguished a surgeon as Sir James Paget. That bleeding was in some cases carried too far, and in some not needed, we may admit; but then what therapeutic in medicine or surgery, as a hobby, has not been overdone? In many cases bleeding put down incipient danger, and in many saved life,—acute inflammatory attacks, apoplectic seizures, chronic congestions, shocks, and injuries from accident. I must have bled occasionally a hundred times in the year, club patients, parish patients, the rich and the poor. Many first physicked did not get better until bled; periodic bleeding was looked for, and did good. An old woman past ninety may be quoted. In an apoplectic seizure a branch of the temporal artery was opened, with relief, on the presumption of lessening *vis a tergo* blood, and thereby cumulative congestion. Congestion of lung, with livid face and stupor, was relieved; the blood at first coming out dark and slow, and gradually bursting forth in a stream, presumably proving a want of decarbonisation of blood and freedom of right side of heart. I can remember congestion of lung in a young gentleman, from exertion, who died from pulmonic infiltration: probably bleeding would have saved him. Bleeding to faintness for such a purpose old practitioners seldom wanted; and they did not bleed, for ostensible reasons, fair delicate persons having paucity of red globules and lymph in their blood. In one of the Gloucestershire valleys, called "bottoms" by Shakespeare, the sites of cloth factories, I beg to say my practice dates from 1822, in the early part of which ague was prevalent and has disappeared for more than thirty years; no endemic or epidemic disease has prevailed to any extent; cholera very little, or small-pox; scarlatina, when about, the most. I must remark that the majority or almost all cases which formerly demanded or required apparently bleeding no longer come in view. Heart disease and lung bronchitis, more of a chronic kind, with complaints of a neurotic basis, would seem to supersede older inflammatory forms, for here certainly for some years past I have seen hardly a case for bleeding. Many cases of quinsy, utterly for days preventing swallowing, are not now so frequent in my opinion. One lamentable case of the kind occurred, in which I lost a much valued friend, and society a very clever and esteemed member, who died in an instant from quinsy, which scarcely affected his swallowing or breathing. It happened to break at the moment he began to speak about it, when the liberated matter entered the larynx and choked him.

The second subject myself and so many are interested in, and which has been treated in such a masterly way by Dr. Reynolds, belongs to the theories of the origin of man from quadramanous tribes below him, and of Life from chemical action and compounds. The missing link to establish the one is wanting, and always likely to be. The refutations from so many authorities must be respected; and those who have read, or will read, the lectures of the late Sir William Lawrence on "Man and Animals," will see the improbability, or impossibility rather, that any other animal than man can ever make the erect position of man natural or subservient to will and utility. Whether the different races of man in an incalculable term of years are the changes from one family, under moral and climatic circumstances, is still an open question; but that life can be only traced to the great Creator himself, as his especial power to confer, is no question, but a palpable fact, and equally so wherever it exists, from the simplest forms to the most complex animal and vegetable—a mysterious agent, which under creative wisdom and law makes the seed to become a plant or a tree, and the embryonic form of the animal to follow out its prescribed course to maturity.

Trusting I may not be thought obtrusive in subscribing my name to these unpretending remarks,

I am, &c., THOMAS STOKES.

Nailsworth, August 24.

## OBITUARY.

### CHARLES CHRISTOPHER HAYMAN, M.D.

It is with deep regret that we announce the early death of this esteemed and well-known physician, who died on August 2, at West Malling, Kent, after a painful and lingering illness. He was the youngest son of Mr. Charles Dell Hayman, formerly a surgeon in extensive practice at Axminster, and was born in 1826. In 1846 he commenced his professional education at the Middlesex Hospital; in 1849 he became a Licentiate of the Apothecaries' Company, and in 1850 a Member of the Royal College of Surgeons of England, and forthwith commenced practice at West Malling. In 1853 he took his Doctor's degree at King's College, Aberdeen, and in 1860 he became a Licentiate of the Royal College of Physicians of Edinburgh. In 1854 Dr. Hayman was attacked with congestion of the apex of the left lung with hæmoptysis, and from that time his health gradually declined until 1860, when he was advised to remove to Eastbourne in the hope that the bracing air of that beautiful watering-place would restore him to somewhat of his former vigour. These expectations were realised; his strength gradually returned, and for nearly fourteen years he was able to attend to the pressing claims of a rapidly increasing practice. About four years ago symptoms of Bright's disease manifested themselves, but he still worked on until last autumn, when he was compelled to give up the chief part of his duties to his son, Dr. Charles Norton Hayman. He came to London last June to consult Sir William Jenner and Dr. Radcliffe, and hopes were entertained that his valuable life might be prolonged, but it was ordained otherwise. He went to West Malling, and in three weeks he was released from his sufferings. Eastbourne has sustained a great loss by the death of Dr. Hayman, who was not only highly valued in his professional capacity, but also for his zeal and activity in promoting the general interests of the town. During the epidemic of scarlet fever which raged in Eastbourne in 1863, Dr. Hayman exerted himself far beyond his strength, and it was chiefly by his instrumentality that the sanitary improvements, especially with regard to drainage, were carried out, which have since made Eastbourne so celebrated as a health-resort. Dr. Hayman was an acute and able practitioner, and very quick at diagnosis, and it was by his skill, conscientiousness, and kindness that he secured the confidence of all who came under his care; and his numerous friends and patients will long mourn the irreparable loss they have sustained.

## MEDICAL NEWS.

University of London.—The following are lists of candidates who have passed the recent First B.A., First B.Sc., and Preliminary Scientific (M.B.) Honours Examinations:—

First B.A. only.

*English.*—First Class: Downes, John Skelton, University College (Exhibition); Hargreave, James, King Edward's School, Birmingham; Scrutton, Thomas Edward, University College, and Wilson, Alfred Ralph, St. John's College, Cambridge (equal); Wright, George Payling, New College. Second Class: Holder, Henry William, Lancashire Independent and Owens Colleges, and Wheen, Frank, Wesley College, Sheffield (equal); Tasker, William Henry, Owens College. Third Class: Warburton, Cecil, Old Trafford School and private study; Stansfeld, Joseph James, University College and Garrick Chambers.

*Latin.*—First Class: Postgate, John Percival, Trinity College, Cambridge (Exhibition); Smith, Henry Gibson, Owens College. Second Class: Scully, James Aloysius, Stonyhurst College; Brunner, Adolphe, private study; Watts, Augustine, St. Cuthbert's College, Ushaw.

*French.*—First Class: Brunner, Adolphe, private study (disqualified by age for the prize. Second Class: Sweeting, Richard Deane Roker, Malvern College and private tuition; Pocock, Sidney, University College. Third Class: Stansfeld, Joseph James, University College and Garrick Chambers; Woods, William Noel, University College.

*German.*—First Class: Brunner, Adolphe, private study.

First B.A. and First B.Sc. conjointly.

*Mathematics and Mechanical Philosophy.*—First Class: Rowe, Richard Charles, First B.A., Trinity College, Cambridge (Exhibition); McAlister, Donald, First B.Sc., St. John's College, Cambridge. Second Class: Findlay, Charles Farquhar, First B.A., Trinity Hall, Cambridge, and Summers, Edward Samuel, First B.A., Trinity Hall, Cambridge (equal); Morley, Henry Forster, First B.A., University College. Third Class: Kikuchi, Dairokʻu Yasuyuki, First B.A., St. John's College, Cambridge, and Lattimer, Thomas, First B.Sc., Owens College (equal); Bennett, William Henry, First B.A., Lancashire Independent and Owens Colleges; Bush, James, First B.Sc., private tuition and study.

First B.Sc. and Preliminary M.B. conjointly.

*Chemistry.*—First Class: Munro, J. May Herbert, First B.Sc. and Prel. Sci., College of Science, Dublin (Exhibition). Second Class: Uhthoff, John Caldwell, Prel. Sci., Guy's Hospital; Wilkinson, Arthur Thomas, Prel. Sci., Owens College Medical School; Smith, Alfred John, First B.Sc., Owens College. Third Class: Capper, Thomas, First B.Sc., private study Tilly, Alfred, Prel. Sci., St. Mary's Hospital; Smith, George, First B.Sc. and Prel. Sci., Royal School of Mines; Crow, John Kent, First B.Sc. and Prel. Sci., Owens College; Gill, Richard, First B.Sc. and Prel. Sci., Royal Institution School, Liverpool; Berry, Frederic Haycraft, Prel. Sci., Guy's Hospital; Wiglesworth, Joseph, Prel. Sci., Liverpool School of Medicine; Maylard, Alfred Ernest, Prel. Sci., Guy's Hospital; Sedgefield, Arthur Robert Wyatt, Prel. Sci., King's College; Wainewright, Robert Spencer, Prel. Sci., Guy's Hospital.

*Zoology.*—Second Class: Hill, Alexander, Prel. Sci., University College; Third Class: Castle, Hutton, Prel. Sci., St. Thomas's Hospital, Gill, Richard, First B.Sc. and Prel. Sci., Royal Institution School, Liverpool, Wilkinson, Arthur Thomas, Prel. Sci., Owens College Medical School, and Williams, Dawson, Prel. Sci., University College (equal); Smith, George, First B.Sc. and Prel. Sci., Royal School of Mines, and Wiglesworth, Joseph, Prel. Sci., Liverpool School of Medicine (equal); Boulting, William, Prel. Sci., University College, Saise, Walter, First B.Sc., Royal School of Mines, and Shaw, John, Prel. Sci., St. Thomas's Hospital (equal); Davies, William Edward, Prel. Sci., University College, and White, Augustus Henry Scott, First B.Sc. and Prel. Sci., University College (equal).

*Experimental Physics.*—Second Class: Tilly, Alfred, Prel. Sci., St. Mary's Hospital. Third Class: Gill, Richard, First B.Sc. and Prel. Sci., Royal Institution School, Liverpool.

*Botany.*—Third Class: Munro, J. May Herbert, First B.Sc. and Prel. Sci., College of Science, Dublin, and Whitney, Neville Scott, Prel. Sci., University College (equal); Castle, Hutton, Prel. Sci., St. Thomas's Hospital; Robertson, David, Prel. Sci., private study, and Wilkinson, Arthur Thomas, Prel. Sci., Owens College Medical School (equal); Wiglesworth, Joseph, Prel. Sci., Liverpool School of Medicine; Davies, William Edward, Prel. Sci., University College, and Williams, David James, Prel. Sci., University College (equal).

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Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 20:—

Key, Augustus Cooper, Elliott-road, North Brixton.
Skinner, Edward, Red-hill, Sheffield.
Stocker, Charles Joseph, Globe House, The Green, Stratford.

The following gentlemen also on the same day passed their primary professional examination:—

Chadwick, George Richard, Guy's Hospital.
Karop, George Charles, Middlesex Hospital.
Pitt, Richard Joseph, Charing-cross Hospital.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Cuddy, Henry, M.R.C.S.E. and L.S.A.—Junior House-Surgeon to the Royal Southern Hospital, Liverpool.

Reid, George, M.B., C.M. Aberd.—House-Surgeon and Secretary to the Staffordshire General Infirmary, Stafford.

Williams, W., M.D., M.Ch. Q.U.I., M.R.C.S.E., M.R.C.P. Lond.—Senior House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* W. P. Hughes, L.R.C.S. Ire., and L.K. & Q.C.P. Ire., resigned.

### NAVAL APPOINTMENTS.

Admiralty.—Patrick Kulan, Staff Surgeon, Second Class, to the *Sappho;* Richard W. Coppinger, Surgeon, to the *Cambridge*, as supernumerary; H. A. W. Richardson, Surgeon, to the *Topaze;* Ingham Hanbury, Surgeon, to the *Narcissus;* Edward Meade, Surgeon, to the Chatham Division of Royal Marines; Richard C. P. Lawrenson, Surgeon, to Portsmouth Dockyard, *vice* Bellamy, whose period of service has expired.

### BIRTHS.

Battersby.—On August 15, at Thorenc, near Cannes, the wife of Charles H. Battersby, M.R.C.S., L.K. & Q.C.P. Ire., etc., of a son.

Evans.—On August 23, at 1, College-terrace, Belsize-park, N.W., the wife of William Evans, M.D., late of Calcutta, of a daughter.

Jones.—On August 17, at Downton, Herefordshire, the wife of George T. Jones, M.D., F.R.C.S., of a son.

### MARRIAGES.

Benson—Walker.—On August 19, at St. Mary's, Whitby, Percy Hugh Benson, of H.M. Indian Medical Service, second son of Colonel R. Benson, Madras Army, to Mary Eden, youngest daughter of the late James Walker, Esq., of Whitby.

Byers—Bowman.—On August 20, at Bishopwearmouth Church, Sunderland, William Lumsdon, eldest son of the late John Byers, Esq., of Sunderland, to Florence, second daughter of H. O. Bowman, M.D., Sunderland.

Cooper—Harby.—On August 22, at Leytonstone, Frank W. Cooper, L.R.C.S. Edin., L.S.A., to Edith, eldest daughter of James B. Harby, Esq., Leytonstone.

Corney—Hill.—On August 18, at the parish church, Chessington, Surrey, Bolton Glanvill Corney, M.R.C.S., to Evelyn, fourth daughter of the late Rowland Hill, Esq., formerly of Cheddar, Somerset.

Kendall—Gedye.—On August 25, at St. Mark's Church, Notting-hill, Walter Benger Kendall, L.R.C.P. Edin., M.R.C.S., of Kidsgrove, Staffordshire, eldest son of Frederic Kendall, Esq., of Bishopton, Stratford-on-Avon, to Marian Lower, second daughter of Nicholas Gedye, Esq., of Essex-street, Strand.

Page—Rauthmell.—On August 19, at the parish church, Holme, Westmoreland, David Page, M.D. Edin., eldest son of Dr. Page, Professor of Geology and Mineralogy in the University of Durham, to Mary, only daughter of John Rauthmell, Esq., of Brook House, Holme.

ROGERS—FLOWER.—On August 20, at St. Mary's, Lambeth, Hildyard Rogers, M.R.C.S., to Edith, second daughter of the late George Flower, M.R.C.S., of St. Martin's, Stockwell.

SEWELL—WILSON.—On August 18, at Clyffe-at-Hoo Church, Kent, Fredk. John Sewell, Esq., to Elizabeth Charlotte MacSween (Bessie), eldest daughter of the late Andrew Wilson, Esq., Deputy Inspector-General of Hospitals, H.E.I.C.S., and granddaughter of the late Right Reverend the Hon. Edward Grey, D.D., some time Lord Bishop of Hereford.

## DEATHS.

ASHLEY, WILLIAM HENRY, M.D. Edin., F.R.C.S. Eng., at 28, Ladbroke-square, on August 23, aged 55.

BINDLOSS, JAMES BACKHOUSE, M.R.C.S. Eng., L.S.A., at his residence, Oakfield, Cheadle, Hulme, Cheshire, on August 22, aged 45.

GRANT, ROBERT EDMOND, M.D., F.R.S., Professor of Comparative Anatomy and Zoology, University College, London, at 2, Euston-grove, on August 21, in his 82nd year.

HILL, SAMUEL, M.D., formerly Medical Superintendent of the North and East Ridings Asylum, Clifton, York, at Wambrook, Dorset, on August 20, in the 64th year of his age.

JAMES, ALFRED, M.D., M.R.C.S. Eng., L.S.A., at Argyle House, Forest-hill, Kent, on August 22, aged 45.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ANDERSON'S UNIVERSITY, GLASGOW.—Professor of Chemistry. Applications, with testimonials, to J. B. Kidston, 50, West Regent-street, Glasgow, on or before September 1.

BIRMINGHAM GENERAL DISPENSARY.—Additional Resident Surgeon. Must be duly qualified and registered. Applications, with testimonials, to A. Forrest, Secretary, on or before August 29.

BOROUGH OF STOCKPORT.—Medical Officer of Health and Public Analyst. Applications, with testimonials, to Walter Hyde, Esq., Town Clerk, Stockport, on or before September 14.

BRADFORD EYE AND EAR HOSPITAL.—Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before September 8.

GLOUCESTER COUNTY PRISON.—Surgeon. Candidates must be duly qualified. Applications, with testimonials, to George Riddiford, Esq., Clerk of the Peace, Shire Hall, Gloucester, on or before September 15.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Physician; also a Surgeon. Applications, with testimonials, to the Secretary, on or before September 15.

HULL AND SCULCOATES DISPENSARY.—Resident Surgeon. Candidates must possess both a medical and surgical qualification, and be registered. Applications, with testimonials, to the Honorary Secretary, Mr. G. W. Stourton, on or before September 2.

HULL GENERAL INFIRMARY.—Resident Assistant-Surgeon. Applications, with testimonials, to the Chairman, Henry Gibson, Esq., at the Infirmary, from whom further particulars may be obtained. The post will be vacant on September 1.

KINGTON UNION.—Medical Officer for the Eardsley District. Applications, with testimonials, to the Clerk of the Union, on or before September 18.

LUNESDALE UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. Robert Stephenson, Clerk, on or before September 8.

NEWCASTLE-UPON-TYNE INFIRMARY.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Sub-Committee, on or before September 15.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, ST. MARYLEBONE-ROAD.—Resident Medical Officer. Applications, with testimonials, to the Secretary, on or before September 7.

ST. LUKE'S HOSPITAL.—Clinical Assistant. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before September 3.

SOUTHPORT CONVALESCENT HOSPITAL.—Resident Medical Officer and Superintendent. Candidates must be qualified. Applications, with testimonials, to the Chairman of the Hospital, on or before September 21.

SUNDERLAND AND BISHOPWEARMOUTH INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Candidates must possess both a medical and surgical qualification. Applications, with testimonials, to the Secretary, on or before September 24.

YORK DISPENSARY.—Resident Medical Officer. Applications, with testimonials, to S. W. North, Esq., Castlegate, York, on or before September 3.

YORK LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Bootham, York, on or before September 19.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATION.

*Narberth Union.*—Mr. George Richards has resigned the Second District; salary £35 per annum.

### APPOINTMENTS.

*Newcastle-under-Lyne Union.*—Edward Turner Thompson, L.R.C.S. Ire., L.K.Q.C.P. Ire., to the Whitmore District.

*Wellingborough Union.*—Edwin Hemsted, M.D. Queen's Univ., Ire., C.M., to the Earls Barton District.

HOSPITAL SUNDAY IN BOSTON.—This, the first attempt at instituting the Hospital Sunday in the United States, has not proved very successful—little more than $13,000 having been raised.

THE introductory address at the Liverpool Royal Infirmary School of Medicine will not be delivered until Monday, October 5, owing to the first days of the month being set apart for the triennial musical festival and several other public proceedings, in which his Royal Highness the Duke of Edinburgh will take part. The address will be given by Mr. T. L. Walker, the Lecturer on Ophthalmic Surgery, and Honorary Surgeon to the Eye and Ear Infirmary.

EUCALYPTUS GLOBULUS IN INTERMITTENT FEVER.—Dr. Hirsch, on the strength of nine cases in which he has tried this remedy, gives his opinion that its power is little, if at all, inferior to that of cinchona. In all the cases the diminution of the spleen in size was evident. In most of the cases three or four teaspoonfuls of the tincture succeeded in arresting the next impending paroxysm.—*Berlin. Klin. Woch.*, July 27.

PRESENTATION OF A TESTIMONIAL TO DR. FLEMING.—This gentleman a few days ago became the recipient of a handsome testimonial from some of the leading inhabitants of Maryport and its vicinity, where he had for some years been in practice. The presentation took place at the Doctor's residence, 30, West Clayton-street, Newcastle-upon-Tyne. The testimonial consists of a massive, valuable, and highly artistically executed épergne, representing the vine and its branches, in frosted silver; and bears the following inscription:—"Presented to John Nicholson Fleming, M.D., by a few friends, in recognition of his public as well as private worth, on the occasion of his leaving Maryport to commence professional practice in Newcastle-upon-Tyne.—August, 1874."

HEALTH OF SCOTLAND.—There were registered in Scotland during the quarter ending June 30 last, the deaths of 19,640 persons, indicating an annual proportion of 227 deaths in every 10,000 persons of the population estimated to the middle of the year. During the ten previous years, the average death-rate of the quarter was 223 deaths out of every 10,000 persons, or 2·23 per cent. It thus appears that the mortality during the past quarter has been slightly above the mean of former years. The death-rate presents considerable variations in the five groups of districts into which Scotland has recently been divided. Thus, for every 10,000 persons in each group, deaths occurred in the proportion of 278 in the large towns, 270 in the principal towns, 213 in the small towns, 171 in the insular-rural, and only 135 in the mainland-rural districts. Of the eight principal towns, Paisley shows the highest, and Perth the lowest, proportion of deaths during the quarter. For every 10,000 persons in each town, there have died 298 in Paisley, 297 in Dundee, 294 in Glasgow, 242 in Greenock, 238 in Edinburgh, 235 in Leith, 217 in Aberdeen, and 216 in Perth. The deaths from zymotic diseases, including those generally spoken of as epidemic and contagious, were 522 in April, 541 in May, and 613 in June; but, if this last month be equalised to thirty-one days, the deaths in June were 633—a number indicating a rather unusual prevalence of diseases of the zymotic class.

## NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

*Medicus.*—The list you refer to is not published in our journal.

*Dr. Eustace Smith* will receive a proof very shortly.

*Mr. Teevan's* "Cases" have been received and will appear shortly.

*Martinus* will find an interesting paper by Dr. Sutton, "On Fibroid Degeneration of the Lungs," in the vol. xlviii. of the *Medico-Chirurgical Transactions.*

*Chichester.*—"How grateful is the search! with pride to trace
Useful inventions, that exalt our race,
Fixing by various stages from their source,
In new improvements, the progressive course.
On nice connexions man's high schemes depend;
Means must be found proportioned to the end.
Slow they advance who seek perfection's prize,
Or benefactors of the world would rise."

*Cosmo.*—The first stamp duty on newspapers commenced on August 12, 1712.

*Winthrop.*—The Albany Medical College, New York, was founded in 1845.

*Clement P.*—Dr. G. B. Halford was House-Surgeon to the Westminster Hospital in 1852.

*G. C. A. W.*—1. No. 2. Next week.

*Yale.*—"The Plain Dealer," by Dr. Wagstaffe, first appeared April 12, 1712. He was a physician to St. Bartholomew's Hospital, Fellow of the College of Physicians and of the Royal Society. He died May 5, 1725, aged forty years.

*Nauticus.*—Lemon-juice as a specific against scurvy was known in this country more than 200 years ago, as appears from the work by John Woodall, Master in Surgery, London, 1636, entitled "The Surgeon's Mate; or Military and Domestic Medicine."

*Smithsonian.*—"If evils come not, then our fears are vain;
And if they do, fear but augments the pain.—*T. Moore.*

*L. S. M., Norwich.*—Avenbrugger, a German, invented the method of percussion.

AN ADVERTISING SURGEON OF THE EIGHTEENTH CENTURY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I enclose you an advertisement I copied *verbatim* from a weekly paper nearly a century old, and trust that such, for the reputation of the Naval Service, may ever remain old and historical among us. It may be some solace to our naval medical officers to observe that the advertiser is *from*, and not *in*, the British navy. I am, &c.,

Clacton-on-Sea, August 19. J. RAND, F.R.C.S.E. (exam.)

[*From the "Chelmsford Chronicle," Friday, March* 7, 1794.]

Campbell, Surgeon, from the British navy, informs the public in general he is removed from the "Red Lion," Back-lane, to East-hill, near the "Whalebone," where he practises all the branches of Physic and Surgery. He gratefully returns thanks to all his friends for all former favours, and respectfully solicits the continuance of their custom and the public's in general. All their orders will be gratefully answered; and when sent for he is reasonable in his charge. He may be consulted with in all Physical and Surgical Cases from ten o'clock in the morning till four in the afternoon. His advice gratis to the poor. He desires the afflicted to bring or send their morning urine.

COMMUNICATIONS have been received from—

THE MILITARY SECRETARY OF THE INDIA OFFICE; Mr. W. F. TEEVAN, London; Mr. JONATHAN HUTCHINSON, London; MEDICUS; Mr. J. LEWIS, Birmingham; Mr. ALFRED S. PERKINS, Exeter; Messrs. PUTNAM and SONS, New York; Mr. A. C. HOWETT, London; Messrs. SALT and SON, Birmingham; Dr. DEMAQUTRIZ, Piedmont; Mr. J. QUARTON, York; Dr. BUZZARD, London; FAIR PLAY; Mr. E. LYON, London; Dr. EUSTACE SMITH, London; Mr. T. STOKES, Nailsworth; Mr. H. MORRIS, Limerick; Dr. SUCKLING, Birmingham; Mr. E. L. HUSSEY, Oxford; Sir J. ROSE CORMACK, Paris; Mr. J. CIATTO, London; Dr. T. GRAINGER STEWART, Edinburgh; Mr. T. J. BUSE, Swansea; the REGISTRAR-GENERAL, Edinburgh; Surgeon-Major BLACK, Brussels; Mr. E. FORCE, Exeter; Mr. J. M. CARR, Newcastle-on-Tyne; Dr. GROSS, Nancy; THE EDITOR OF THE BRITISH MEDICAL JOURNAL; Dr. J. W. MOORE, Dublin; Mr. G. REID, Stafford; THE REGISTRAR OF APOTHECARIES' HALL; Mr. B. BARROW, Ryde; Dr. LEESON, Vevey; Mr. A. TEMPLE, Kington.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette Médicale—Gazette Hebdomadaire—Gazette des Hôpitaux—La Tribune Médicale—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—York Herald—Missouri Clinical Record—Liverpool Mercury—Transactions of the Odontological Society of Great Britain, vol. vi., No. 8—Nature—Canada Lancet.

## APPOINTMENTS FOR THE WEEK.

*August* 29. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

31. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

*September* 1. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

2. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

3. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

4. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, August* 22.

### BIRTHS.

Births of Boys, 1140; Girls, 1155; Total, 2295.
Average of 10 corresponding years 1864-73, 2072·8.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 689 | 614 | 1303 |
| Average of the ten years 1864-73 | 776·3 | 721·5 | 1497·8 |
| Average corrected to increased population | ... | ... | 1648 |
| Deaths of people aged 80 and upwards | ... | ... | 33 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 5 | 1 | ... | 4 | ... | 2 | ... | 21 |
| North ... ... | 751729 | ... | 2 | 11 | 2 | 3 | 3 | 7 | ... | 38 |
| Central ... | 334369 | ... | 3 | 13 | ... | 3 | 1 | ... | ... | 15 |
| East ... ... | 639111 | ... | 5 | 25 | 1 | 5 | 2 | 6 | 2 | 36 |
| South ... ... | 967692 | ... | 8 | 12 | 2 | 11 | 2 | 5 | 2 | 56 |
| Total ... ... | 3254260 | ... | 23 | 62 | 5 | 26 | 8 | 20 | 4 | 166 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 30·140 in. |
| Mean temperature | 61·9° |
| Highest point of thermometer | 81·2° |
| Lowest point of thermometer | 46·2° |
| Mean dew-point temperature | 55·2° |
| General direction of wind | W.S.W. & E. |
| Whole amount of rain in the week | 0·00 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 22, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Aug. 22. | Deaths Registered during the week ending Aug. 22. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2295 | 1303 | 81·2 | 46·2 | 61·9 | 16·61 | 0·00 | 0·00 |
| Portsmouth ... | 120436 | 26·8 | 65 | 46 | ... | ... | ... | ... | 0·00 | 0·00 |
| Norwich ... ... | 82257 | 11·0 | 46 | 41 | ... | ... | ... | ... | ... | ... |
| Bristol ... ... | 192889 | 43·3 | 125 | 81 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 53 | 30 | 79·3 | 45·2 | 60·5 | 15·83 | 0·33 | 0·84 |
| Birmingham ... | 360892 | 43·0 | 274 | 221 | 82·0 | 44·7 | 61·2 | 16·22 | 0·23 | 0·58 |
| Leicester ... ... | 106202 | 33·2 | 60 | 72 | 84·8 | 43·8 | 62·3 | 16·83 | 0·18 | 0·46 |
| Nottingham ... | 90894 | 45·5 | 67 | 44 | 83·6 | 39·9 | 59·9 | 15·50 | 0·44 | 1·12 |
| Liverpool ... ... | 510640 | 98·0 | 393 | 331 | 75·1 | 50·5 | 60·8 | 16·00 | 0·16 | 0·41 |
| Manchester ... | 355339 | 82·8 | 285 | 217 | 83·0 | 46·5 | 61·0 | 16·11 | 0·27 | 0·69 |
| Salford ... ... | 133068 | 25·7 | 97 | 77 | 83·1 | 44·7 | 61·0 | 16·11 | 0·27 | 0·69 |
| Oldham ... ... | 86281 | 18·5 | 67 | 43 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 134 | 93 | 78·2 | 48·5 | 61·0 | 16·11 | 0·04 | 0·10 |
| Leeds ... ... | 278798 | 12·9 | 176 | 166 | 78·0 | 46·0 | 59·9 | 15·50 | 0·00 | 0·00 |
| Sheffield ... ... | 261029 | 13·3 | 220 | 142 | 84·1 | 42·0 | 60·7 | 15·94 | 0·01 | 0·03 |
| Hull ... ... ... | 130996 | 36·0 | 104 | 81 | 78·0 | 40·0 | 53·7 | 14·83 | 0·39 | 0·99 |
| Sunderland ... | 104378 | 31·6 | 98 | 59 | 92·5 | 49·0 | 65·4 | 18·56 | 0·12 | 0·30 |
| Newcastle-on-Tyne | 135437 | 25·2 | 98 | 82 | ... | ... | ... | ... | ... | ... |
| Edinburgh ... ... | 211691 | 47·8 | 123 | 72 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 377 | 282 | 73·3 | 48·1 | 58·6 | 14·78 | 0·37 | 0·94 |
| Dublin ... ... | 314666 | 31·3 | 163 | 138 | 80·0 | 45·3 | 61·7 | 16·50 | 0·06 | 0·15 |
| Total of 21 Towns in United Kiugdm | 7618655 | 36·6 | 5320 | 3624 | 84·8 | 39·9 | 61·0 | 16·11 | 0·18 | 0·46 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·14 in. The highest was 30·31 in. on Friday at noon, and the lowest 29·91 in. at the beginning of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

SIX LECTURES ON THE

## SURGICAL TREATMENT OF ANEURISM IN ITS VARIOUS FORMS.

DELIVERED IN THE THEATRE OF THE ROYAL COLLEGE OF SURGEONS.

By TIMOTHY HOLMES, F.R.C.S.,
Professor of Surgery and Pathology to the College.

### Abstract of Lecture V.,

*Delivered on Wednesday, June* 17.

The subject of popliteal aneurism was continued by considering the effects of compression which has failed on the result of subsequent ligature. This, Professor Holmes states, is not favourable, as is usually taught. By referring to the hospital table it is seen that forty-four cases are included in it, in which the femoral artery was tied after failure of compression. Death followed in eight. Five others were unsuccessful—viz., four in which amputation was performed with success, while in the remaining case the aneurism is known to have recurred two years after its apparent cure. Thus thirteen out of the total number (forty-four cases) were unsuccessful—a much higher proportion of failure than in those cases where the ligature was used at once, the death-rate in the two sets of cases being 29·54 per cent. and 19·48 per cent. respectively. This is contrary to general belief, which is founded mainly on the statistics collected by Mr. Hutchinson and published in the *Medical Times and Gazette* for November 29, 1856. These statistics were founded on too small a number of cases to bear the conclusions which have been based on them. They have been taken to show—and in this respect Mr. Holmes pleads guilty along with other authors—that the treatment by compression has a favourable influence on the subsequent progress of cases generally by enlarging the collateral circulation, and thus lessening the tendency to gangrene.

From this cause it is held that the mortality after ligature is lessened when it becomes necessary to tie the artery on the failure of compression.

The large numbers contained in the hospital table would show to anyone who trusts implicitly to figures, that, on the contrary, the mortality of the operation of ligature of the femoral artery in modern practice has proved considerably less than that which was deduced from the records of practice in the last two generations, and that the proportion of deaths in cases which, after having been submitted unsuccessfully to pressure, are treated by ligature of the femoral, is greater than the average mortality of cases treated by the ligature at once.

The latter conclusion is not surprising; it is quite true that the application of pressure will probably enlarge the collateral vessels, and thus diminish the risk of gangrene; but it will also have somewhat exhausted the patient, and it may have produced a certain amount of injury to the vessels at the part compressed; and these disadvantages are to be set against any advantage which may be gained by the enlargement of the collaterals. But what is of far more importance is this: that pressure succeeds in the best cases in which it is tried, and fails in the worst. Hence the mortality is likely from the first to be greater in the cases of failure of compression than in those of success. Of 124 cases in which the treatment by pressure was undertaken, success was obtained at once in sixty-six; in forty-four of the others the ligature was applied, and succeeded in thirty-one, making a total number of ninety-seven successes, and the total number of failures twenty-seven. The total result of the compression-treatment, as compared with that on the method of Hunter, has been that the percentage of deaths after compression has been a little less, but that fewer cases on the whole were completely cured; there being rather more in which amputation was performed, and a few who withdrew themselves from all further treatment—a class which, of course, does not exist on the other side. On the whole we may say that, allowing for accidental circumstances, the results of the two methods have been as nearly identical as is possible in a long series of cases extending over many years, and a large variety of districts.

This seems a striking argument in favour of the more recent method. It does, in truth, very often fail; it has difficulties from which the ligature is entirely free; and it depends on careful attention to a number of minute details on the part of the surgeon, and exacts sometimes from the patient prolonged submission to an irksome and distressing ordeal, from which, as he knows, he can withdraw himself at any minute. All this is quite different from the progress of a case after ligature, as, when once the vessel is tied, the surgeon has but little and the patient nothing more to do. That a method of treatment which has been so recently adopted into general use as that by pressure should have already attained the same amount of success as one which has been perfected by the experience of a century, during the whole of which period it has been the favourite study of some of the greatest surgeons of their time, is surely a most gratifying success, and one which promises results still more successful. It must be remembered, too, that there is much difference between a limb after compression of its chief artery on the one hand and after its ligation on the other. The ligation of the main artery leaves the limb weakened, ill-nourished, and often prone to obstinate and hardly curable ulceration.

After ligature the main artery is always obstructed at one part, and usually at two (viz., the seat of ligature and the seat of aneurism); whereas, after pressure, the artery is not necessarily obstructed. To this must be added the far more powerful consideration, that in successful cases of pressure the patient is exposed to no danger whatever, and sometimes to really no inconvenience; whilst such cases, instead of being exceptional, are really, Mr. Holmes thinks, the majority, provided the case be undertaken at an early period, and the sac be well formed and complete. The Professor considers that the cure by pressure ought to be attempted in all ordinary cases of popliteal aneurism. When the sac is imperfect, or even very weak, it is better to resort to ligature at once; and if the aneurism be situated towards the knee-joint, or be rapidly growing, Mr. Holmes does not advocate long perseverance in the attempt to cure by compression, nor, indeed, does he think that in any case protracted compression is a benefit to the patient, or diminishes the percentage of failure. Moreover, the methods of compression are being constantly improved. The triumphs of the rapid form of pressure under chloroform, the success of digital pressure, the rapid and painless cures sometimes obtained by flexion, are amongst our most recent experiences, and show that we do not know by any means all that may yet be accomplished by compression.

A very gratifying feature which comes out from the Professor's table of hospital cases is the proof it affords of the great success which attends the treatment of aneurism in this country. The whole number of cases of popliteal aneurism comprised therein is 212—viz., seventy-seven treated by ligature at once, 124 in which the compression-treatment was adopted, two treated by the old operation, one by temporary ligature, one in which a cure was effected without any operation, and seven in which amputation was resorted to at once. The total number of deaths was either twenty-nine or thirty, or, in other words, about 14·1 per cent., many of the deaths being due to disease of the heart and viscera. All these cases were treated to the end, and no objection can be made to the series, such as has often been alleged, and justly, against statistical accounts of operations, as being founded on cases which were published partly on account of their success; these being unselected, and forming a continuous series of hospital cases, of all shades of severity, taken just as they occurred, and in the practice of London and country surgeons indiscriminately. Nor can the deadly influence of hospital atmosphere, of which we have lately heard a good deal, be traced in these authentic records of practice. They are taken indiscriminately from large hospitals in cities, and from provincial hospitals; and the lists furnished by our large metropolitan and great provincial hospitals may fairly challenge a comparison of results with those which are obtained at country infirmaries. The whole collection forms a most pleasing record of what has been done in the treatment of a disease which, little more than a hundred years ago, was looked upon as so deadly. Successful as we may be in the treatment of popliteal aneurism at present, as compared with past days, we cannot deny that there is still much room for improvement. But of the various plans which have been introduced with this view, none promise more than slight success as compared with compression exercised on the artery above and genuflexion. The Professor proceeded therefore to speak of these, and first of compression, the use of which we owe certainly to the Irish surgeons of the last generation, although in theory the method has never quite passed out of memory since the days of Guattani.

The lecturer quoted a passage from a paper by Mr. Bransby

Cooper in vol. ii. of *Guy's Hospital Reports*, published in 1837—a time when, according to Dr. Bellingham, there was less activity displayed in the compression-treatment than at any other period in the century. The author remarks:—"From the beneficial effects of pressure upon the sac in this case, I am inclined to believe that the mechanical and medical treatment of aneurism without operation has scarcely been sufficiently tried by surgeons, and that pressure upon the sac, as well as upon the trunk leading to it—at the same time a perfect state of rest being strictly maintained, and the action of the heart and arteries being by medical means diminished,—might often lead to such a deposition of fibrine in the sac as would produce a cure, an occurrence which does not unfrequently take place by spontaneous efforts of nature." But such floating ideas were never reduced to actual practice until the Dublin surgeons took up the matter systematically, and proved by repeated trials the curability of popliteal aneurism by a method of pressure in which the absolute stoppage of the current of blood was not necessary, where the point of its application might be varied, and the patient might be indulged with long periods of relaxation while the sac was being gradully lined with firm fibrinous coagula. Still, the compression was not always thus carried on, and it was, on the contrary, very soon found that a patient could endure complete and continuous compression with the result of effecting a more rapid and an equally stable cure. The first successful case of the compression-treatment of aneurism in a London hospital occurred under Mr. Stanley's care in June, 1847, and is recorded in vol. viii. of *St. Bartholomew's Hospital Reports*. There was a popliteal aneurism on each side. Compression was total, and continued uninterruptedly on one side from the middle of Saturday till the middle of the following Wednesday—four days. On the other side the compression was used for shorter periods with intermissions—viz., for thirty-nine hours, twenty-four hours, twenty-four hours, and forty-eight hours, at intervals of about a day. The instrument used was a tight horseshoe tourniquet, which could be well borne after an unsuccessful trial of some heavier and more complicated apparatus.

The Dublin method of partial and interrupted compression prevailed for some time in our hospitals. It was taught that a certain degree of circulation through the tumour was, as a general rule, essential; and it was on this supposed necessity that Broca founded his doctrine of passive and active clots. The Irish surgeons worked steadily at all the details of instrumental compression, and certainly achieved in the early period of the treatment a very remarkable success. According to Mr. Tufnell, thirty cases out of thirty-nine were cured. This success was followed by the general adoption of the treatment, but it is useless to deny that the expectations of surgeons in other countries were somewhat disappointed. According to Mr. Hutchinson's and Mr. Holmes's tables, pressure has hitherto failed about as often as it has succeeded in the hands of British surgeons.

The foundation of the theory announced by Broca has been altogether upset by the proof repeatedly afforded that a safe and permanent cure may be obtained by the rapid coagulation of the whole blood *en masse* into what he denominates "a passive clot." Such cases were early observed, since, in one of the earliest cases of compression recorded by Tufnell, the whole process only occupied seven hours and a half; but they have become more familiar and have assumed more practical importance since the introduction of digital pressure and of the rapid method of pressure under chloroform. There is now no doubt that such rapid cures are not exceptional (as they were at first considered), and that the filling of the sac with soft blood-clot, instead of being a dangerous or unfavourable proceeding, is usually the first step to a permanent cure. It is quite true that such soft clots sometimes melt away again, and the aneurism, after apparent cure, resumes its pulsation, and may even grow again; but this melting away of the clot is hardly ever accompanied by any other unfavourable symptom, and a resumption of treatment is generally quite successful. This being the case, it is no longer thought necessary or prudent to delay suppressing the circulation altogether instead of merely reducing its force. It seems self-evident that the changes in volume which the tumour undergoes in the alternate compression and relaxation of the interrupted method of pressure must delay the final consolidation of the aneurism; hence the desirability of obtaining definite consolidation in a single sitting, or at least in as few as possible. The minutest care should be bestowed to see that no wave of pulsation ever passes through the tumour, and if the patient's irritability demands it, he may be kept under opium, or chloroform, or ether. Before compression is commenced, it is well to remember Dr. Carter's precaution—viz., that the circulation should be equalised by a few days' complete rest in bed on low diet, and so far reduced that an 8 lb. or 9 lb. weight completely stops the pulsation of the aneurism.

The next point to determine is the best method of compression. Most surgeons, and Professor Holmes does himself, prefer the digital to every other form of pressure, when a sufficient number of really well-trained and trustworthy assistants can be obtained; while others, believing that the digital pressure is liable to be unsteady, and that it gives more pain, and entertaining perhaps an exaggerated idea of its difficulty, prefer some kind of tourniquet, or even a weight. The action of digital pressure and the weight is in all respects identical, allowing that each of them is really applied all the time to the artery firmly enough to stop its pulsation; and the only question that can arise is, whether a staff of disciplined assistants, if available, are more trustworthy than a watcher with a weight. There may be a question which form of pressure is best when the time required is so short that the pressure can be tolerated on the same spot for the whole period. If any shifting is required, digital pressure is preferable, as it is difficult to apply a weight effectually anywhere except at the point where it catches the artery by acting vertically on the brim of the pubis. When a tourniquet is used, the one invented by Dr. Carte is the best, but the precaution insisted on by its originator—viz., to see that the elastic bands are not too strong, lest they act like a dead weight—should be observed. Instrumental pressure, aiming, as it does, less at celerity than at safety in the cure, should never be applied so as to be very painful to the patient, and he should be always indulged with intervals of complete repose. So far as regards digital pressure, all that can be said is that it has come into general use in our hospitals too recently to be fairly reported on. Yet such experience as we have had of it justifies the belief that it is a most efficient, rapid, and painless method when well applied. Fischer quotes and refers to ninety cases in which digital compression was used—either alone or in combination with instrumental pressure or flexion—for the cure of popliteal aneurism. The total result of these ninety trials of digital pressure as a chief or the only means of cure was as follows:—It succeeded in fifty-five cases; ligature was used in twenty-three; four cases were afterwards cured by instrumental compression, combined in two with flexion; two were amputated; three were cured by injection of perchloride of iron, manipulation, and acupressure respectively; and in three no further treatment was adopted.

The slight force requisite to command the femoral in the groin renders it easy for the patient to undertake his own treatment when necessary. This is now illustrated by many examples, and is well recognised as a means of treatment for intelligent patients. The earliest case appears to have been Mr. Tufnell's, reported in the *Dublin Medical Press*, vol. i., 1847. But perhaps the most striking is that recorded by Mr. Bryant in the Guy's Hospital Reports, series iii., vol. xiv. The patient was a policeman, whom Mr. Bryant had cured of a popliteal aneurism by digital pressure, but who about a year subsequently suffered from another aneurism in the opposite ham. This man with his own thumb and fingers suppressed the pulsation in his femoral artery for four hours and a half, when the aneurism was completely cured. He died subsequently of disease of the aorta, and both the cured aneurisms have been preserved, and were indeed exhibited by the Professor.

It was pointed out by Mr. Holmes that the advantages possessed by digital pressure are that a less amount of force is required with the intelligent human finger than with the unintelligent machine, so that there is less risk of sloughing of the skin. This sloughing of the skin is more apt to follow compression by the pad of an instrument than by the soft living tissue of the pulp of the finger. Again, digital pressure in the groin can be arranged so as to avoid all compression of the femoral vein; but however dexterously a pad may be adjusted and maintained, it is impossible not to press to some extent on the vein as well as the artery, when the two lie side by side. The point of pressure with the finger can be changed within much smaller distances than with a pad, and the finger moreover can dip between artery and vein (when necessary), and compress the former without interfering with the blood-current through the latter. It appears decidedly desirable on all

accounts to interfere as little as possible with the vein; and cases are not wanting to show that the vein is often permanently obliterated after pressure. Besides this latter possibility, there can be no doubt of the injurious effect of that engorgement of the whole limb which is often caused by the temporary or incomplete obstruction of the vein, and therefore of the great advantage of any plan which can be limited as far as possible to the artery only. Mr. Holmes, following Mr. Walker of Liverpool, urges the importance of what Mr. Walker has called the "one artery system" of pressure. It is not well, by varying the point of pressure from the common to the superficial femoral, to change the course of the anastomosing circulation. In practice, too, digital pressure has been found to be much less painful than pressure by tourniquets or by the weight. Vanzetti records a case in which the pain in the aneurism, which had been very acute, was at once relieved by digital pressure; and Mr. Holt one in which the patient slept during the application of the pressure.

Fischer refers to seventeen cases in which instrumental pressure was so painful that it had to be given up, and in eleven of these digital pressure was successfully carried out. In Broca's work, twenty-nine cases are given in which instrumental pressure was intolerable; in fact, the invention of digital pressure seems to have been due in great measure to the pain caused by the instruments.

The applicability of compression in cases of disease of the artery itself must not be lost sight of. It is illustrated by numerous instances of aneurism, and in all parts of the body. Cases which, on account of atheromatous disease of the vessels, could never have been treated by ligature with any hope of success, have been cured by pressure. Pressure in such cases is far more safely applied by means of the finger than by any tourniquet, since it is of the last importance not to use any excess of force over an atheromatous or ossified artery.

The rapidity of cure by digital pressure is one of its greatest advantages, closely connected with the less force which it requires and the less pain which it produces. In Fischer's table an average has been struck of the length of time occupied in the treatment of the successful cases of digital and instrumental compression respectively. It shows that 34·7 per cent. of the cases of digital pressure were successful in the first twenty-four hours, whilst only 10·1 per cent. of those of instrumental pressure were so. The mean time required for cure in the list of cases of digital pressure was about three days, and of instrumental pressure about fourteen days.

The difficulty in making effectual digital compression varies much in different cases, some persons possessing more knack and more strength of fingers than others. Pressure which is easily applied is also, as a rule, easily borne. Unless some assistance is given to the fingers—such as was employed in a case of Mr. Holden's, by means of a bag filled with twelve pounds of shot,—few persons can keep up pressure for more than ten minutes or a quarter of an hour. Digital pressure should always be made with sufficient force to stop the pulsation of the tumour, and no more. The plan of allowing a perceptible amount of circulation to go on through the tumour, which was recommended by the Dublin surgeons years ago, is now allowed to have no advantage. It is quite possible that some blood may be passing through the sac, even though no pulsation can be felt; but however this may be, it is certain that the total obliteration of pulse in the aneurism does not retard, but, on the contrary, greatly hastens the cure, and that in some cases the disease has been cured in a very short time, the shortest time probably being three hours and a half of compression, though pressure was continued for four hours more as a precautionary measure. The cure in this case was permanent. In about one-third of the cases the cure has been obtained in the first twenty-four hours, and it is almost always possible to keep up continuous pressure for this length of time. But after this, if success has not resulted, pressure must be suspended, and digital pressure must be either supplemented with instrumental pressure, or it must itself be employed in an intermitting manner for about two hours at a time twice a day. The sac will by this time probably have become well lined by fibrine, so as not to yield to the distending force of the circulation when readmitted, and fresh accretions will be added with each compression until the whole tumour is obliterated.

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WE understand that all men-of-war carrying a medical officer will be supplied with an apparatus for analysing the water for the ship's use.

## ORIGINAL COMMUNICATIONS.

# OPERA CLINICA.

# ON BLOOD-LETTING AS A POINT OF SCIENTIFIC PRACTICE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

(*Continued from page* 230.)

EFFECT OF BLOOD-LETTING IN PROGRESSIVE PNEUMONIA.

In the year 1851 a case came under my observation at Barnes. It was that of a strong man, about twenty-six years of age, who suffered from pulmonary congestion, induced by exposure to cold and wet, with exhaustion from want of food. He had been to London on a visit of "pleasure," got wet through during his journey to town, stood about in his wet clothes all the day, and finished up by going to the play, and returning home on foot. This occurred on October 15, and on the 16th he had what he called a cold. He continued to grow worse, and on the fourth day I was called to find him suffering from congestion of the left lung, with fine pneumonic crepitation at the posterior part. He was treated with salines, and was sustained, as far as possible, by food, but he did not progress, and on the sixth day a dozen leeches were applied to the chest, the dyspnœa having become very severe. A few hours later, at my evening visit, I discovered that the congestion had extended to the right lung. The face now was bronzed, the breathing very difficult, the action of the heart laborious, and the pulse tense. The patient was, in fact, in the same condition as Mr. C., the history of whose case is given at the close of my last communication, but with this disadvantage, that he had struggled through a progressive course of the disease, had fasted longer, and was feebler. I determined, nevertheless, to take blood cautiously from the arm, and when I had drawn rather over ten ounces I was obliged to desist, owing to the occurrence of faintness. This condition of faintness was of short duration, while the relief gained by the abstraction of the blood was most perfectly demonstrated in the instant freedom that was afforded to the hard and laborious breathing, to the oppressed heart, and to the loaded blood. From this time improvement was steady and sure, and on October 26, ten days from the commencement of the attack, the man was convalescent.

EFFECT OF BLOOD-LETTING FOR THE CURE OF COMA AND CONVULSION AFTER LABOUR.

In the close of the year 1847 I was called to the village of Radwinter, in Essex, to see a young woman who had recently been delivered of a first child. A midwife had attended her, and had rendered every necessary assistance. The labour had been marked by only one striking peculiarity—viz., the enormous quantity of liquor amnii that escaped; the placenta had been thrown off naturally, and the uterus had contracted well. For some days preceding her labour the woman had been unusually dull and oppressed, and within an hour after the delivery, comatose symptoms with convulsions set in. At the time of my arrival there was complete unconsciousness, with stertorous breathing, strabismus, and active convulsions recurring every fifteen or twenty minutes. The patient was quite unable to swallow, and I found that free counter-irritation, in the way of a turpentine stupe, had been employed without result. To bleed in this case, and to bleed freely, was the practice I had been taught; and therefore I carried out the practice without delay. I drew off one pint of blood, with immediate effect in stopping the convulsions; but as the coma continued, I ventured, at the end of an hour's time, to repeat the venesection, and drew off nearly a pint more blood. After this I waited until, from a restless state resembling the awakening from sleep, the woman became partly conscious. I left directions that she should be fed moderately, and should have no stimulant. I also directed that the child should be put to her breast so soon as she was able to take it by her side. On the following day this patient was perfectly conscious at the time of my visit. She had suffered no return of convulsion, and she was not feebler than women generally are after confinement. She made a rapid and perfect convalescence, without resort to any other medical treatment than the venesection.

EFFECT OF BLOOD-LETTING IN A CASE SIMILAR TO THE ABOVE.

On May 29, 1873, Mr. Burton, of Richmond-terrace, West Brompton, summoned me to see a lady whose symptoms were

nearly the same as in the case immediately described above. In this lady the most marked peculiarity of the labour, so Mr. Burton told me, was the excessive discharge of amniotic fluid. After delivery she became comatose, insensible, and vehemently convulsed. Her face was congested, her veins tense, her pupils fixed, and her temperature high—103° Fahr. Before my arrival the patient had been bled freely from the arm, and the more alarming symptoms had subsided; but the jugular veins were still tense, the temperature was 102° Fahr., and the unconsciousness continued, with an occasional convulsion. Confirming fully the treatment that had been pursued, I recommended the abstraction of still more blood by leeches, together with continued application of a collar of ice around the neck. I learned afterwards from Mr. Burton that the amendment in the symptoms continued, and that recovery took place without any interruption. Mr. Burton was so good as to take me to see this patient a few months ago. I found her quite well, and I could gather nothing from her that could lead to the remotest suspicion of her having suffered one single harm from the remedy which, I am morally sure, saved her life.

*Note.*—The phenomena of coma and convulsion after labour, in cases such as are here described, are, I believe, phenomena of uræmia. The symptoms are identical with those of uræmic coma, and the cause is not far to seek. The kidney, subjected to intense pressure during the latter term of pregnancy, is suddenly relieved by the escape of the excessive amount of amniotic fluid and birth of the child. Thereupon into the half-paralysed vessels of the kidney there is an influx of blood, a temporary but effective congestion, and a state of things analogous to that which occurs when the nervous supply of the kidney is divided. The effect of the abstraction of blood in this condition is to afford immediate relief to the congestion of the vessels, to enable the kidney to resume function, and to let the order of the economy proceed.

Effect of Blood-letting in Cases of Uræmic Coma.

(A.) In the close of the year 1850, I attended a boy, seven years of age, for scarlet fever. He recovered from the fever, but in January, 1851, he took cold on being exposed to wet, and on January 21 I was called, to find him in a state of profound uræmic coma. Some urine he had passed was rich in albumen; his body was cold, his pulse small, his consciousness altogether lost. Convulsions of a severe character had set in, involving the muscles of the neck, the face, and the limbs. The pupils were widely dilated and fixed; the breathing was catching and irregular. I tied up an arm and opened a vein. The blood at first flowed feebly, but by-and-by came in a full stream. Under this depletion, the pulse rose and the convulsions ceased. I took sixteen ounces of blood without producing a sign of faintness in this little patient, and I left him composed and conscious. A purge was afterwards given, and occasionally a warm bath. On February 1 he seemed to have recovered entirely, and the urine was free of albumen.

It is worthy of note that this boy, after passing some weeks in good health, playing, eating, and sleeping naturally, after partaking of too hearty a meal, was again seized with convulsions, and died. On the occasion of this fatal attack he was not submitted to venesection.

(B.) In the beginning of the year 1873 I was called to a young lady eleven years of age, who, after an attack of scarlet fever, was seized with uræmic coma. I found her partly unconscious, with convulsions, with slight strabismus, with the pupils widely dilated, and with the temperature of the body normal. The urine she passed was richly albuminous. I suggested the immediate abstraction of blood from a vein, but was so strongly opposed I did not urge the practice. As the symptoms in a few hours became much more imminent, consent was given that I might take blood by leeches. I seized the opportunity, and I carried out the bleeding as effectively as if blood had been taken from the arm, removing by relays of leeches applied over the loins fully eight ounces of blood. The relief afforded was immediate, and, the temporary congestion relieved, the patient continued to improve until she had made a perfect and rapid recovery.

(C.) In 1847 I was attending for Mr. Brown, of Saffron Walden, an aged man who lived near to Littlebury, in Essex. This patient had for some time complained of symptoms of suppression of urine, with drowsiness, which symptoms I knew practically were most easily removed by a purge. Late one night I was summoned to see him because he had been taken in "a fit." He was profoundly comatose and frequently convulsed. I knew then very little about uræmic coma, and I was beginning to share in the general panic which was seizing the profession respecting the horrors and dangers of blood-letting. So I refused—though the friends of the sufferer, good old-fashioned people, remonstrated with me—to bleed. In lieu of bleeding, I ordered a blister to the nape of the neck, applied cold to the head, and tried ineffectually (for the man could not swallow) to administer a purgative. I expected nothing less than a fatal termination, and left with that honest impression. The next morning I received a message not to visit this patient again, "as another doctor had been called in." Having to pass the house, however, a day or two afterwards, I ventured, notwithstanding the prohibition, to make an inquiry as to the state of the sick man. He was sitting up in bed perfectly conscious, and a day or two later I saw him leaning on his staff at the door of his house, as well in health as he had been for a period long past. I have learned since that the old gentleman lived several years after I had left the neighbourhood, and that he had many a laugh at my expense, which in truth I deserved quite as richly as he enjoyed.

The history of his recovery is full of interest. His friends believed him to be suffering from "a stroke of apoplexy," and having formed that reasonable diagnosis, they came to the practical conclusion that he ought, therefore, to be "blooded." As I left him, giving no hope, and refusing the desired remedy, they called in a neighbouring medical practitioner who soon afterwards was seen riding past their house, and asked him to give his aid. My friend thus summoned—for I am happy to say he still lives—had none of my fears. He opened his lancet, tied up the arm of the dying man, and drew blood freely. With the flow of blood the cloud of unconsciousness began to clear away, the convulsions subsided, and perfect recovery crowned the treatment.

I was on the wrong side of the hedge that time, and, at the moment, felt sufficiently humiliated; but I profited by the lesson, and have never regretted the humiliation.

(*To be continued.*)

# ON LEPROSY AND LUPUS AS SIGNS OF INNUTRITION.

By GEORGE GASKOIN, M.R.C.S.,
Surgeon to the British Hospital for Diseases of the Skin.

The mission of Dr. Milroy to the West Indies results in the conclusion that leprosy is due to innutrition. It becomes a food question *pur et simple*. The Colonial Office has henceforth a test by which it may judge of the physical wellbeing of its lieges—that is to say, of their alimentary condition. The conclusion of the envoy is such as approves itself to every mind that has given itself with earnestness to the subject. In all these things there are degrees, but whichever way you look at it, to the ruling power a leprous population is a disgrace. That lowest degree of disgrace we have fortunately got rid of in this land, with the very barest remnant left. Among pathological conditions, elephantiasis in England is most rare.

We can no longer count, then, on this test; and the suggestion no doubt will arise that we have no further need of it, our sanitary condition being so much improved. As to that there is something to be said. The great inequality of wages at present existing leads to experience of many a case among us of dearth in food, if not of downright starvation. Is there any test by which to form a sanitary estimate on the side of sustenance, independent of the balance and chemical analysis, independent too of vulgar dictation? In lupus exedens, I affirm, there is such a test. Whenever in country districts, or among the employed in labour, either in country or in town, this lupus exedens is found (at least, in more than single instances), there food falls short in quality or quantity; that trade or country may be generally suspected or impugned as not affording the proper means of support, at least to those in tender years. I have to allow for carelessness and neglect of food in operation among the rich, for wilfulness in opinion, for ignorance, for superstition, all active in production of disease; but I say that innutrition, *quasi* starvation, lies at the root of this complaint—insufficiency of means of support as applied to the individual of necessarily varying constitution. And here, let it be remarked, the effect of this is not immediate, but lasts for a long term of years; and these

subjects of innutrition are not commonly lean in flesh, especially in childhood, but round-limbed, and often fresh-looking, though having meat but once a week, or living on wages incredibly low. I offer, then, the existence of this disease in more than single cases to the notice of the sanitary official, as an excellent mark or test to be inquired after and to be made account of, holding it as sure a sign as leprosy of insufficient supply of food. There is no necessity for giving cases to show this, nor can I reasonably ask for space to prove it *in extenso*. I place lupus exedens in the same category with the other; and whatever may seem overstrained in the argument is owing to the brevity with which the subject is treated. I here lay down a principle and submit it to correction; all minor respects I put aside.

## EXPERIMENTS ON SNAKE-BITE.

By C. R. FRANCIS, M.B.,
Deputy Surgeon-General, Indian Medical Department.

It is now generally admitted that the effect of the venom of the Indian snake is a temporary suspension of function, not a permanent injury to structure; so that, if the individual who has become impregnated with it can be kept alive for a certain time, the function affected will, when the action of the poison has subsided, recover itself. This fact is most encouraging, and cannot therefore be too widely known. To keep the patient alive, not only are remedies of a stimulating nature required in view of rousing him from the extreme depression which follows in such cases, but something that shall counteract, as much as possible, the action of the poison, as strychnine does that of curare. This is now the admitted position. Of course, in cases where a large dose of the poison has been injected, the result will, in all probability, be fatal.

I have myself made many experiments with snake venom, some of them in the presence of the now head of the Indian Medical Department, Dr. J. C. Brown. Thirteen years ago, when stationed in Lucknow, I satisfied myself that a mungoose (*Herpestes Malaccensis*) if properly bitten would die, and that, although harmless snakes succumbed to those with venom, one cobra could not kill another. And I have been called upon to treat several cases of alleged snake-poisoning. Of these three were certainly the result of cobra-bite. The individuals were taken with all speed to the hospital (which was close at hand) of the 2nd Bengal Fusiliers (now 104th), and of which I was then in medical charge, and were at once put upon the liquor ammoniæ plan of treatment, and prevented from going to sleep. The treatment was conducted under my own superintendence, and, in my absence, under that of the apothecary and his subordinates. All recovered, at intervals varying from twelve to twenty-four hours. Liquor ammoniæ is now kept at every police-station in Bengal and Assam, and returns of snake-bite treated by it are periodically submitted through civil surgeons to Government, but the results are most untrustworthy. Nor is liquor ammoniæ a certain remedy in all cases. Whilst, therefore, we recognise in its action the good effects of a stimulant plan of treatment, coupled with artificial respiration and remedies to keep up the temperature, etc., there is yet left to be discovered the main factor—an antidote.

Respiration is not impeded by the venom of rattlesnakes and Australian serpents, but it evidently is by that of the cobra. If strychnine be antagonistic to the effects of curare, which acts upon the peripheral extremities of the motor nerves concerned in respiration, why should it not act in the same way in the case of cobra poisoning? The pathology is probably not the same in each case; hence the reason. It occurred to me, however, that further experiments might be made with this drug in view to ascertaining if there really be any efficacy in it or not. Our object, I apprehend, is to discover an antidote which is readily attainable by the people. Nux vomica (vernacular, *Koochla*) is indigenous to the soil in some parts of India, and the nuts (seeds) are to be found in every bazaar. If strychnine were found to be useful, a proportionate dose of nux vomica would probably answer the same end.

On referring to Dr. Fayrer's experiments recorded in his "Thanatophidia," it is seen how exceedingly susceptible the animals bitten were of the influence of strychnine. In each experiment (see Nos. 5, 6, 7, and 8) a large quantity of strychnine—from one-sixth to nearly half a grain—was injected. In all the four it seemed as if death was caused by the intended remedy. Experiment 10 shows us how extremely susceptible the cobra itself is of the influence of strychnine. Although the hypodermic syringe which had been used for injecting solutions of this drug into venomous snakes had been most carefully washed several times before being used for injecting some poison from one cobra into another, tetanic symptoms displayed themselves in the head and neck of the subject of the experiment in two minutes after the injection, and in twenty-seven minutes more it was dead. Might more favourable results be obtained with smaller quantities of the drug?

Experiment 16 is rather antagonistic to this view, one-sixtieth of a grain of strychnine having been injected without arresting the course of the poison; but the antidote was introduced eight minutes after the latter. It also struck me that monkeys might be utilised, not having yet, so far as I am aware, been included amongst the numerous lower animals already sacrificed. The two kinds common to our Indian jungles are the *Rhesus Innuus* (vernacular, *Bundur*) and the *Presbytis Entellus* (vernacular, *Lungoor*). Neither are large animals; indeed, the former is usually small. The *Lungoor* (*vide* the experiment recorded by Dr. T. Ringer in the *Indian Medical Gazette* for May, 1870) would appear to have a relish for strychnine, eating several grains enclosed in fruit with enjoyment, but succumbing to cyanide of potassium; whilst the *Bundur* readily falls a victim to it. I therefore experimented with the latter.

There were present on the occasion Surgeon Mitchell, 96th Regiment; Surgeon B. Simpson, Civil Surgeon of Patna; and several other medical (and military) officers.

*Experiment* 1.—A *Rhesus Innuus* was bitten in the thigh by a powerful cobra (*Naja Tripudians*) at 1.42 p.m. At 1.43 p.m. one-sixtieth of a grain of strychnine was injected into the opposite thigh by Dr. Simpson. At 1.44 p.m. the monkey, which had been previously lively, lay down frightened, defæcated, licked its wound, and was evidently exhausted. The respiration was hurried. At 1.48 p.m. the sleepiness had increased. At 1.49 p.m. the animal rolled about on the ground. At 1.50 p.m. one-sixtieth of a grain was again injected. At 1.51 p.m. was lying still; one-thirtieth of a grain was now injected, making a total of one-fifteenth of a grain of strychnine. At 1.55 p.m. the monkey died, after a very slight convulsion. There were no manifestations of the effect of strychnine.

*Experiment* 2.—At 2.3 p.m. a monkey of the same kind was bitten in the thigh by a fresh powerful cobra. At 2.3½ p.m. one-twelfth of a grain of strychnine was injected into the opposite thigh. Hurried respiration and restlessness at once supervened. At 2.5 p.m. these symptoms became more prominent, accompanied by a disposition to lie down—now on one side, now on the other. At 2·8 p.m. another one-twelfth of a grain of strychnine was injected, making a total of one-fifth of a grain. At 2.10 p.m., or two minutes afterwards, tetanic spasms supervened. At 2.15 the monkey died in a tetanic state. Sleepiness was the principal result of the poison in this monkey.

From the evidence of these two cases, it would appear that one-fifteenth of a grain of strychnine was too little, whilst one-fifth was too much; but this evidence is worth very little. Further experiments are required; but I am afraid that we cannot expect anything satisfactory from a drug which is an antidote (?) in one dose, and a poison in another. No more monkeys being available, the experiments with strychnine were not continued.

*Experiment* 3, *with Carbolic Acid.*—At 3.37 p.m. a strong, though undersized, pariah dog was bitten in the thigh by a powerful cobra. Immediately afterwards ten minims of carbolic acid were injected into the opposite thigh from a graduated hypodermic syringe. 3.38 p.m.: Leg seems paralysed; limps. 3.39 p.m.: Licks the wound; whines; sits down. 3.40 p.m.: Gets up; restless. 3.41 p.m.: Lies down again; respiration becoming hurried. From 3.44 to 3.50 p.m. quiet. 3.52 p.m.: Gets up, but lies down again immediately; licks his wound; has a thoughtful look. 3.55 p.m.: Defæcates; tries to rise; falls back again. 3.56 p.m.: Slightly convulsed. 3.58 p.m.: The convulsions increasing. 4 p.m.: Ditto. 4.3 p.m.: Dead.

Nothing was done to this dog (who throughout wagged his tail when addressed) beyond injecting the carbolic acid. The quantity injected was small. It is well known what a strong influence carbolic acid exerts upon cobras. At the conclusion of the experiments I brought the nose and mouth of one in

contact with a drop of this fluid. Instantly the reptile writhed violently, its body becoming doubled upon itself in numerous folds. When taken up by the tail it seemed as if cast in metal. It remained in this state of convulsion for four clear days, when it died.

*Experiment* 4, *with Garlic.*—At 3.23½ p.m. an undersized and rather weakly pariah dog was bitten in the thigh by a fresh cobra. Salt was at once rubbed into the bitten part, a mixture of milk and essence of garlic was forced down his throat, and the dog was trotted about. More of the mixture was given at intervals, until, at 3.42 p.m., all had been administered. The dog limped slightly at first, and licked the seat of the bite, but the limping gradually wore off. 3.48 p.m.: No unusual symptom had shown itself. 3.53 p.m.: Made water, the fluid emitting a strong smell of garlic. 4.5 p.m.: Vomited. Begins to drag the bitten leg, and to show symptoms of exhaustion. At 4.37 p.m., vomited and passed urine. From this time it was clear that the poor animal's life would soon ebb away. Although still walked about, he preferred lying down; and, if unnoticed, would retire to a secluded part of the garden, evidently wishing to be left undisturbed. At 5 p.m. he was found in one of these spots dead.

Garlic was tried in this case upon the recommendation of a native gentleman, who stated that he had seen some surprising cures with it. Beyond a powerfully stimulating effect, which can be better procured with liquor ammoniæ, there is evidently nothing of value to be obtained in snake-bite from garlic.

All the cobras employed were in full vigour (they had been kept for several weeks, it is true, in perforated earthen vessels, but they had been taken out from time to time, and regularly fed with mice, which all devoured greedily); but it is more satisfactory to extract the poison from the poison-sacs, and preserve it for use. It is the fashion with some people to ridicule the idea of any further experiments being made with snake-poison; but surely when so many thousands are sacrificed annually (it is calculated that in one district alone—that of Burdwan—the annual mortality is 1000) to its deadly virulence, it behoves all medical men who have the opportunity, to endeavour, in the cause of humanity, to discover an antidote. It would be well if there were more inquirers in the field, and emulating the fine example of Dr. Fayrer, who is labouring even at home.

Dinapore.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## LONDON HOSPITAL.

### CASES OF GRAVES'S DISEASE.

[Communicated by Mr. SHAPLEY, Junior Resident Medical Officer.]

(*Concluded from page* 212.)

*Case* 3.—*Bronchocele and Proptosis of seven months' duration—Discharged after four months' treatment much Benefited.*

(Under the care of Dr. FENWICK.)

FANNY S., aged 33, married, was admitted to Davis ward, on March 5, 1874, under the care of Dr. Fenwick. On admission, the following history was obtained:—No goître in family, but it is common in the neighbourhood where she was brought up—Godstone, near Dorking. Lived there for the first twenty years of her life, since which she has frequently been there. Has been accustomed to drink largely of water from a spring that came through the chalk. Very healthy up to twenty years of age, when she began to have children, since which she has suffered a good deal from neuralgia and general debility. Observed no special symptoms until about eight months ago, when her health began to fail, she felt weak, lost all appetite, and frequently suffered from palpitation of the heart; she also retched on rising in the morning, and fainted occasionally. At the latter end of July, 1873, her neck began to swell, and her breath became very short, especially on stooping, or after exertion. In August she was told by her friends that her eyes were getting prominent, and she found that she could not see quite so well as formerly. She had no pain or throbbing in the head, nor noises in the ears. In September the catamenia ceased, after which she was much better for a time.

*State on Admission.*—Patient is sallow and anæmic, tolerably well nourished, with a rather mournful appearance. Her eyeballs project, and are luminous and transparent. Her nose often bleeds, and there is a slight discharge from the nostrils. There is a large goître, and over it the veins are much distended. The right side is much larger than the left. The swelling is firm and elastic to the feel, pulsating with a distending, heaving motion, and moves with the larynx on swallowing. On measurement, the right side of the neck was found to be 9 inches, the greatest circumference being 16⅝ inches. The length of the right lobe was 4⅞ inches, and that of the left 4⅛ inches. Sight good. No diplopia or muscæ volitantes. Has flashes of light occasionally. Much troubled with singing noises in the ears, which are increased on lying down. Has occipital headache, but not constantly, which is very severe whilst it lasts, and is worse after exertion or on reading. Complains of neuralgic pain shooting through the chest from breast to back, and of pain at the "small of the back." States that the left arm—in which she has had rheumatism badly—is weaker than the right, also that she feels melancholy, and that little things worry her. Sleeps a good deal, but is restless. Feels very hot, and does not know how to bear any clothes on her at night. Flushes frequently, but does not perspire much. Heart's impulse is increased at apex, quick and sharp, not heaving. First sound dull at apex, with a slight murmur; second sound loud. Pulse 111, soft and good; occasional palpitation. A loud, continuous humming murmur can be heard over both lobes of the tumour, becoming fainter towards the middle line, where it ceases entirely. Her appetite is ravenous; "feels as if she wanted to be always eating." No discomfort after food. Is very thirsty. Diarrhœa and constipation alternate. Catamenia ceased for seven months. Has leucorrhœa, which is due to prolapsus uteri. Urine feebly acid; phosphatic crystals; specific gravity 1030; no albumen or sugar.

Patient was ordered Easton's syrup (phosphate of iron and quinine with strychnine), which she continued to take upwards of two months, but without any material improvement in her condition, except that her eyes were a little less prominent, and that she complained less frequently of palpitation. She was then ordered to take citrate of iron and quinine three times a day, and an ice-bag to be kept applied to the bronchocele. After about five weeks of this treatment she was observed to have improved very considerably, not only in her general health, but the size of the neck had decreased about two inches, and the proptosis had almost disappeared. It might be stated that after she had been in the hospital about a month she refused to take any exercise, giving as a reason that she "comes over in such a perspiration when she exerts herself."

Continuing to improve, she was discharged about the middle of July, after having been in the hospital more than four months. She promised to return at once should a relapse take place.

*Case* 4.—*Remittent Bronchocele from Childhood—Proptosis of one month's duration—Discharged after four months' treatment without apparent Benefit.*

(Under the care of Dr. FENWICK.)

Matilda C., aged 25, was admitted to Davis ward, under the care of Dr. Fenwick, on March 17, 1874. No family history of goître could be ascertained, nor is the complaint known in the neighbourhood where she lived (Laxfield, near Framlingham, Suffolk) until the age of seventeen. She has since lived at Tunbridge Wells and Bournewell (Hants). No peculiarities of diet to be detected. Has had slight goître ever since she was two years of age, but it never troubled her until within the last twelve months. During this time it has been getting larger, with remissions and intermissions, some of which were very marked. At one time it decreased in size suddenly, remained small for two or three weeks, and then suddenly enlarged again. Within the last fortnight it has been growing much bigger without apparent reason. About a month ago her eyes began to protrude. For two years she has suffered from frontal headache, and also from palpitation of the heart. The headache has been very severe, especially during the summer, and in the afternoon; it used to keep her awake at night, but it never made her sick. About two years ago, dyspnœa came on gradually, which was increased on exertion and relieved on lying down. Her appetite also left her, and has remained bad ever since. She has lost flesh a good deal.

*State on Admission.*—There is marked enlargement of the thyroid body implicating both lobes and the isthmus, but

chiefly the right lobe. The swelling extends from the upper edge of the sternum to the lower body of the thyroid cartilage in the middle line, and from the same point to within an inch of the angle of the lower jaw on the right side, and within two inches of the corresponding angle on the left side. The tumour is firm and elastic to the touch, pulsates freely, and pushes the sterno-mastoid muscles outwards. Her face is moderately florid and healthy looking, eyes bright, remarkably prominent, and widely open. The lower lid is two lines below the margiu of the cornea; the upper lid is on a level with the margin. She can, however, readily shut the eyes, and habitually does so during sleep. Her eyesight is good, and has continued so throughout. No diplopia, myopia, hypermetropia, or muscæ volitantes. Smell, taste, and feeling normal. Suffers no pain, except headache.

On March 10, and twice since, she has had a tingling and numbness iu the left hand, which spread from the arm to the left side of the face, but did not affect the right side. Describes it as "a funny feeliug." Has no giddiness. There is slight psychical disturbance. Says she is very irritable, and that little things put her out of temper. Area of eardiac dulness normal. A very loud musical humming murmur to be heard everywhere all over the tumour, loudest at the posterior border and over the great vessels. The sound is increased on lying down. Pulse 120, small, feeble, and rather jerky. She frequently flushes, feeling at the same time very hot all over. At night she is too hot to sleep, and can hardly bear any clothes ou the bed. Has considerable dyspnœa on exertion, but not at other times. Appetite very bad, the sight of food makes her feel sick. Urine feebly acid; specific gravity 1025; no albumen or sugar; uo deposit. On examination with the ophthalmoscope, pulsating veins were observed in both eyes. The size of the vessels was larger than normal, and they were extremely numerous.

As in the precediug case, this patient was ordered Easton's syrup, which she took for several weeks without benefit. She afterwards took eitrate of iron and quinine, and ice was applied to the tumour at various times, but this treatment was not followed by such improvement as was observed in Case 3. She also was discharged about the middle of July, having been under treatment nearly four months. Her condition on leaving was much the same as on admission, the only improvement being a marked diminution in the palpitation.

On August 20 the patient called at the hospital to report herself. After leaving the hospital she went to Brighton, where she resided for six weeks. She has considerably improved in her general health, and the catamenia—after having been arrested several months—have returned. The proptosis is now scarcely noticeable; the size of the bronchocele, however, remains about the same, being only half an inch smaller than when first observed.

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Dislocation of the Hip in a Woman Seventy-three Years of Age.—Dr. Kline, practising in Ohio, communicates to the *Medical Record* (June 15), through Professor Hamilton, the particulars of a very remarkable case. He was called to a woman aged eighty-six who had fallen down while crossing her room. Instead of the fracture of the cervix which he expected, he found a fracture just above the condyles of the femur. Extensiou was made by means of a four-pound weight and a pulley, balanced by the weight of the body. The case went ou very well, so that by the sixtieth day union was quite firm. There was no exeoriation of the limb or body, and as a matter of precaution the weight and splints were continued a little longer. This firm and prompt union in one so aged is sufficient to render the case one of interest; but the reason of its being recorded is, that while Dr. Kline was examining the limb under the supposition of intracapsular fracture, he discovered that the head of the femur was resting on the pubes, and pushed up towards the anterior inferior spinous process of the right ilium. She stated that thirteen years before (when seventy-three years old) she had fallen down a flight of steps about three feet high, and dislocated her hip. No attempt was made at reduetion; and she said that she had often pushed the lump down in the groin, thereby moving the whole leg. She always walked with the foot so strongly everted that it formed a right angle with the other, having commenced walking six months after the dislocatiou. Prof. Hamilton believes that, with the exception of a case reported by Gauthier (eighty-eight years), this is the oldest person recorded in whom this accident has occurred.


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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

# Medical Times and Gazette.

SATURDAY, SEPTEMBER 5, 1874.


## LUCRETIUS.

We find that in the leading article last week on Professor Tyndall's Belfast address, our pen made an unlucky slip, and wrote "De Naturâ Deorum," instead of "De Rerum Natura," as the title of the great philosophical poem of Lucretius. Anyone who has ever read Cicero "De Naturâ Deorum," and who knows the mischances of hurry in writing, will know the chain of thought which led to the mistake, and accept our apologies for it. But the incident prompted us to take Lucretius from the shelf, and to read once again his first book. Then came the idea, Why should we not write a leading article on it for next week? At any rate, we will try.

All that is known for certain of the author is, that he was a Roman gentleman, living in the society of M. T. Cicero, Memmius, and others of the highest rank; that he wrote a poem on the philosophical system of Epicurus, and died at the age of forty-five, before it was published. Tradition says that he was insane before he died, and wrote his work in his lucid intervals; and it is added that his insanity was caused by a drugged potion given him by his wife to make him love her the more.

The poem itself is distinguished for the clearness with which it sets forth doctrines in themselves abstruse and difficult, and for the rich poetical glow and fervour which light it up; for a kind of antique austerity and solemn grandeur in the language; and for an abundance of those emphatic sentences which have caused the work to be from the first a mine of quotations.

He describes the human race as lying oppressed by superstition until Epicurus arose, and, undismayed by ghostly terrors, determined to explore the secrets of Nature. And the *vis vivida*—mark the term, still in use—of his mind penetrated beyond the starlit boundaries of this world (*flammantia mœnia mundi*), and conquered Nature, so that we now know from him what *is* and what *is possible*. Don't think, he says, that this search into nature is impious, for it is superstition which is the

cause of infinite crimes in this life—human sacrifice, for example,—

"Tantum Religio potuit suadere malorum."

Such was the depth of misery which superstition led people to submit to. And it not only infests this life, but makes even death terrible by forging a tale of everlasting punishment after death! Such darkness of the mind, he says, must be dissipated by the study of nature and by reason. And of the study of nature this must be the first and radical proposition—"No thing is ever created out of nothing"—

"Nullam rem nihilo gigni divinitus unquam."

The secret source of superstition is, that men see many things in earth and sky which they cannot understand, and so straightway think them the work of the gods. On the contrary, nothing comes from arbitrary will, but everything is the fruit and result of some foregoing thing which acts as seed. And everything must have its own seed. Otherwise we might see men spring from the sea, fish from the earth, cattle fall from the clouds; men might be born full-grown; there might be giants able to wade the sea, and step from one mountain-top to another;—in fact, all nature would be confusion could anything arise from nothing, and if everything must not have its own special seed, or *principium*, or *primordia*.

The second proposition is, that nothing is ever resolved into nothing, but that whatever seems to perish is not annihilated, but resolved into its *corpora* or "elements." If matter were annihilated, the world could not go on; new generations could not replace the old ones. Matter, therefore, is eternal.

And, thirdly, we have a shadowing forth of a doctrine of *attraction*. Particles of matter hold together with a certain connexion; otherwise every touch would be fatal. But since matter itself is eternal, and dissimilar particles have attraction for each other, so all compound bodies hold together till some sufficient violence be inflicted to decompose them. When matter seems to be annihilated, it is only changed—just as the rains vanish on the earth, but reappear as grass and herbage, whence cattle are fed, and man likewise.

"Haud igitur penitus pereunt quæcomque videntur,
Quando alid et alio reficit Natura, nec ullam
Rem gigni patitur, nisi morte adjuta aliena."

No matter, therefore, perishes; but the death of one thing is the life of another.

A fourth proposition follows—that the *primordia*, or ultimate parts, of bodies are invisible. This is true of the air, because the winds which howl over the plains, uprooting trees and levelling houses, though we cannot see them, behave exactly like floods and torrents of water which we can see—

"Quare etiam atque etiam sunt ventei corpora cæca
Quando quidem facteis et moribus, æmula magneis
Amnibus inveniuntur, aperto corpore qui sunt."

Moreover, many things exist which we cannot see—odours, heat, cold, sound,—all of which are corporeal, because they can be felt; for nothing can be felt unless it be corporeal (a maxim which would annihilate ghost stories and spiritualism). Moreover, we know that clothes will become damp on the shore, and dry in the sun; a ring on the finger becomes thin by wear; water wears stone by dropping; a plough is worn thin by use; pavements are worn by the feet of wayfarers; the razen images close to gateways are worn by the touch of passers-by, and yet we cannot see each particle of matter that is worn off, any more than we can detect the successive additions to a tree as it grows. The *primordia*, then, of matter are invisible.

Having so far treated of matter, the fifth proposition is, that besides matter there exists "*inane*," which we may call *space*, vacuum, void, emptiness. Lucretius's aphorism—"Est in rebus inane"—it is which provoked the perpetually quoted ironical complaint of the satirist,—"O quantum in rebus inane!"—(Oh! what emptiness there is in things!) Solid matter and void space are intermixed in all things. Those things which are lightest and softest have most void space intermixed with their solid matter. Hence, equal bulks by no means represent equal quantities of matter; on the contrary, the quantity of matter is as the weight, and a lump of lead, having more matter in less space, therefore weighs more than an equal bulk of feathers.

Sixthly, all things that exist consist of matter and of void space in different proportions. Of these neither can be found without the other, and there is no third kind of existence. It is true that material bodies have properties (*conjuncta*) which are inseparable from them, as hardness from stone, heat from fire, and the like. As for things that exist in thought (subjective existences)—time is nothing more than our sense of the sequence of events; and events—historical events, like the Trojan war, for instance—are transactions, or accidents, of things and persons that existed in time gone by, not definite material existences.

Seventhly, since all substances are compounded of matter and empty space, and without space matter would be solid and motionless,—the whole universe one immovable block,—and without matter space could not be space, for it would have no boundaries,—matter must be not only uncreated, eternal, indestructible, and composed of invisible *corpora*, or particles or atoms, but these *corpora*, or ultimate particles or atoms, must be of infinite hardness and littleness, and incapable of being penetrated or divided. If the ultimate particles of matter were not indivisible, the reparation and regeneration of organised beings would be impossible; there could be nothing begot like its ancestors. The very likeness of offspring to their parents shows that the ultimate particles of each are unchanged. "Newton," says Munro,(a) "would seem to have had Lucretius in mind when he wrote "it seems probable to me that God, in the beginning, formed matter in solid, massy, hard, impenetrable, movable particles, . . . and that these primitive particles are incomparably harder than any porous bodies compounded of them, even so very hard as never to wear or break in pieces." Again, such particles "may compose bodies of one and the same nature and texture in all ages; but should they wear away or break in pieces, the nature of things depending on them would be changed."

These primordial atoms or particles, or *corpora*, must be infinitely small, so that every part of each is in contact with every other part; thus it is impossible to separate top from bottom of an atom, because each portion of each particle is top and bottom too—

"Alterius quoniam est ipsum pars primaque et ima."

If, says Lucretius, the ultimate particles of matter were infinitely divisible, the smallest bodies would consist of an infinite number of parts; so would the largest; and both being infinite, there would be no distinction between large and small. (Sir I. Newton(b) disposed of this by showing that all infinites need not be equal.) Moreover, if matter were infinitely divisible, the atoms, or *corpora*, or *primordia*, would not have shape, size, and weight sufficient to enable them to effect the combinations, movements, and clashings by which compound bodies are formed, and the work of the world carried on.

Eighthly, matter being thus uncreated, indestructible, eternal, inseparable from space, and in its ultimate atoms indivisible, is also infinite. It has no bounds. Go as far as you will there is yet a farther. It has no centre, no top, and no bottom. Everything is in perpetual motion. Things as they are, are not combined and constituted by design, nor by a sagacious mind,—

"Nam certe neque consilio primordia rerum
Ordine se suo quæque sagaci mente locarunt,"—

(a) "Titi Lucreti Cari de Rerum Naturæ," libri sex. With a translation and notes by H. A. J. Munro, M.A., Fellow of Trinity College, Cambridge. 1864.

(b) Munro, *op. cit.*, vol. ii., p. 159.

nor by agreement amongst themselves, but, being in incessant movement, whirled about hither and thither from all eternity, they have settled into a set of convenient grooves, so as to constitute the universe as we see it, which also could not be unless the supply of atoms was infinite.

So, courteous reader, we have given an abstract of the fundamental maxims of the Epicurean philosophy of the greatest poet of his day (B.C. 50), as contained in the first of his six books. Modern science may have improved many details; but so far as a philosophy is concerned, which knows no creator, no design, no future state, no rewards and punishments, which looks on matter as self-existent and eternal, and falling into the various forms of use and beauty which surround us by blind chance, and because it cannot help it: there is nothing new in that. We thankfully acknowledge the value of modern science in dissipating the dreams of superstition, witchcraft, ghosts, and miraculous interferences, and in teaching man that if he wants anything he must work for it. But there are faculties in the mind which are repugnant to a dry materialism.

## ON TRANSFUSION OF BLOOD.

In the early numbers of the *Centralblatt für Chirurgie* are several papers on the subject of transfusion of blood, which it may not be uninteresting to group together.

In the first is an account of experiments made by Nicolai Tabouré, of St. Petersburg, by transfusing the blood of one animal into one of a different species, either immediately or after allowing it to stand for some time, but in either case after defibrination. He injected two cats with the blood of dogs, seven dogs with the blood of calves, one dog with cats' blood, and one sheep with dogs' blood. All the animals had been previously bled, and in all the effect was actually beneficial, except in two of the cases in which calves' blood had been used, and in these death followed in about twenty hours, in one case from paralysis of the heart, while in the other œdema of the brain and lungs was found at the autopsy. In another set of experiments the defibrinated blood of another animal was injected within ten to thirty minutes after the amputation of a limb, the animals experimented upon being eight dogs. In all cases death followed from uncontrollable general oozing from the stump. The author concludes that the substitution of defibrinated for normal blood sets up a sort of hæmophilia, and thus renders its employment after capital operations not only useless but mischievous.

In two dogs transfusion was performed, in one case with the blood of another dog, and in the other with that of a calf, twenty-four hours after an operation. One died of acute blood-poisoning, and the other recovered. In another dog the loss of blood and subsequent transfusion were made to precede the amputation by two days and a half, and the animal was well in twelve days. The last three experiments would seem to show that transfusion may be safely performed a day before or a day after an amputation. The author does not approve of direct transfusion, which he considers inconvenient and dangerous.

In the fourth number is the description of a new instrument introduced by Dr. Paul Schliep, of Berlin, for transfusion, which is supposed to combine the advantages of all previous inventions. It consists essentially of a tube, with a pumping apparatus attached, which is to pass directly from one artery to another—say the carotid of a sheep and the radial of a man. Sufficient pressure is attainable to force the blood through the arteries and capillaries of the receiver, and not allow time for the coagulation of blood in the transmitting tube. The pump is made on the same principle as the English stomach-pump. Dr. Schliep objects to all methods of injecting defibrinated blood. His apparatus may be employed as the surgeon prefers —either from artery to artery, artery to vein, vein to artery, or vein to vein. It may be used with very slight assistance, and thus recommends itself for military practice.

Professor Giuseppi Albini brings forward another new apparatus in *Il Morgagni*, 1874, F. i., pages 19 to 29, which is reviewed in the fifth number. In this, one perforated needle passes into the artery of the animal which is to supply the blood, and another into the vein of the receiver. The needles are connected by an indiarubber tube, into which is fitted an arrangement such that, by turning a tap in one direction, the blood is allowed to escape externally, and by turning it the other to flow into the veins of the receiver. The apparatus is filled first with a warm solution of carbonate of soda, which is of course not allowed to enter the circulation of the receiver. The author, while he considers it as not less than proved that there is some danger in the transfusion of one animal with the blood of one of another species, still does not think that any fluid obtained by defibrination is worthy of the name of blood. He does not see much to choose between arterial and venous blood, except that the latter is loaded with materials destined for elimination, and is not under sufficient pressure to make transfusion easy. He also points out the danger of phlebitis which is run by the donor.

On the other hand, we have the evidence of Dr. Luigi Tassarini, of Berlin, in the same number of the journal, that he considers the direct transfusion from animals to man as proved to be dangerous from Panum's experiments, and so he discards it. He relates, however, a case of malarial fever in which direct transfusion from man to man was performed six times, the patient ultimately recovering. He looks upon transfusion as specially applicable in cases of malarial fever, and he thinks that the quality of the blood as well as the digestive power is decidedly improved. He considers it important that the blood be taken from a healthy young man, a drinker being especially eschewed, and that if symptoms of increased arterial tension—as, *e.g.*, headache, dyspnœa, etc.—should occur, the patient should be bled to the amount previously injected. Transfusion in many cases causes a rigor. There is no objection to the patient leaving his bed after the operation if he was in the habit of doing so before; and he concludes by saying that there is no need to warm the blood, and that it is quite as efficient after as before defibrination.

Immediately following is an account of five cases of direct transfusion from arm to arm, by Dr. Paolo Postempski, at Rome. They were performed by means of perforated needles inserted into the veins of the donor and the receiver, connected by an indiarubber tube. The amount of blood was calculated from the rapidity of its flow in a given time and the known contents of the apparatus. The first case was one of intermittent fever, which had resisted quinine, iron, and arsenic, but disappeared immediately after the transfusion. The second and third were cases of caseous pneumonia and cancer of the uterus, both of which were much benefited. The fourth was a stricture of the pylorus, which was at first slightly benefited, but died on the sixteenth day; and the last one of morbus Westhofii, who had a severe loss of blood on the night after the operation, and died in two days. He refers to the advisability of making an examination of the urine, since it has been shown that an increased amount of hæmatin occurs in it almost in proportion to the amount of blood injected.

## VEGETABLE DIET.

Fifty years ago there flourished an ancient physician—Dr. William Lambe, Fellow of the Royal College of Physicians. He was a man of good family and considerable ability. Born in 1765, he was Fourth Wrangler and B.A. of Cambridge in 1786, practised at Warwick, was a good chemist, a friend of the brilliant knot of philosophers, Priestley, Dalton, and Watt; discovered Leamington and analysed its waters, discovered the

presence of lead and of organic deleterious matter in drinking-water (which at first he took to be arsenic), recommended distilled water for common beverage, settled in London in 1805, became physician to the Aldersgate-street Dispensary, believed he could cure cancer, filled high offices in the Royal College of Physicians, and died in 1847 at the ripe age of eighty-two. Dr. Francis Hawkins, who pronounced his *éloge* in the Harvcian Oration of 1848, declares him to have been an excellent chemist, a skilful physician, and that no more innocent-minded and gentle spirit ever found its way to the habitations of the blessed.

Now, Dr. Lambe was a thorough Puritan in diet, and a Vegetarian. There is no doubt that his constitution was of the type that is commonly called "delicate"; that is to say, he was more or less troubled all his life with weak eyes, headaches, dyspepia, and atonic gout, a well-known and far too common combination of symptoms, accompanied, too, as they usually are, with that kind of hypochondriasis which leads to constant self-observation and minute scrupulosity as to everything which concerns the health. Although most active and temperate in habits, he suffered from indigestion and constipation, which aperient medicine failed to relieve. Driven to desperation, he began by substituting water for beer at his meals; next he took his water distilled, and believed that his stomach was lighter and his perspiration purer, but sick headaches still persecuted him. So in February, 1806, at forty years of age, he abandoned animal food, and took nothing but vegetables for the rest of his life.

We find his way of living and diet described thus in the lately published essay by Inspector-General Hare(a):—

"He took neither tea nor coffee; his breakfast generally consisted of bread—a plain cake, with fruit or salad, or both; and it was very ample, for he took nothing else from breakfast, about ten, till he came home to a late dinner, after seeing his patients in the morning; . . . . and he had a long walk to his residence, which for many years was out of town. He always walked; never by any chance rode, whatever the weather might be. His dinner consisted of vegetables, a pudding or pie, and often an onion dumpling, made like an apple dumpling, only with onion instead. To this he was very partial, but not so his family. After dinner he retired to his room, and slept several hours. He got up about the hour that the rest of the family were going to bed—at ten or eleven—and sat up reading a great part of the night. He liked it, he said, on account of the quiet, and his daughters were wont to hear him making his way to his bed, perhaps at two a.m., when he slept till nine or ten. During these hours of the night he would have a tray of provisions for supper, much the same as his breakfast."

It will be seen that he was able to do without distilled water, and that he had hit upon the real remedy for thirst in temperate climates:—

"In all this time he drank nothing. He said that man was not a drinking animal; his erect form showed it. In a state of nature a man could not conveniently stoop to drink out of streams, etc., and if we lived upon fruit and vegetables we should not have thirst. All vegetarians agree with Dr. Lambe, that when they live on fruit and vegetables they have no thirst. I myself," says Inspector-General Hare, "have marched on foot with my regiment, in the Burmese campaign, for several days all day long, in the heat of a tropical sun, without drinking or feeling thirst. The men fell out around me, and drank the stagnant water from pools and ditches. I warned them; but their thirst prevailed, and cholera broke out among them in the night. Monkeys do not drink, and are found in herds among dry hills where there is no water. Many other animals also never drink if they can obtain green vegetables. . . . Though of a naturally gentle and mild disposition, Dr. Lambe carried his love of the vegetable diet to such an extent, that it became almost like a religious belief with him, and he was somewhat despotic in his family in exacting the strict observance of his dietetic rules. Dr. Lambe's grandson writes:—'I recollect when I was a lad, about ten, my grandfather suddenly appearing at our garden gate, when we were breakfasting off, among other things, a ham, and the confusion which immediately ensued. However, the forbidden viand was thrust into a cupboard, and all the stray pieces heaped on the plate of the carnivorous governess, who, ignorant of the cause of the commotion, looked on in bewildered amazement. . . Dr. Lambe had also opposition from his cooks. In England, every step we take from the common routine of fashion is sure to bring us into trouble. A granddaughter of Dr. Lambe said to me, 'I believe thoroughly in the good effect of vegetable diet, but it is so much easier to order legs of mutton.' Dr. Lambe used to say that his principle could not be completely carried out in this climate, which was uncongenial to man, because it was so much easier to destroy animal life than to cultivate fruit and vegetables, upon which man ought to subsist. Nevertheless, it might be done with care and pains, and *a willing mind*. The doctor, however, never succeeded in entirely excluding a little milk and butter from his bread-cakes, tarts, and puddings, though they were used in very small quantity. The cook would say that she could not make cakes and puddings without them. . . . None of Dr. Lambe's children adhered to the vegetable diet for any length of time after they quitted the paternal roof, except his son, Dr. Lacon W. Lambe, who persevered until he attained about the fifty-fifth year of his age. He enjoyed good health till seventy, and died at seventy-four. . . . The second daughter says, July, 1871, 'None of my father's children inherited his enthusiasm for his diet; but for myself, I had a great leaning towards it, and a disinclination to eat much meat. In regard to what we were allowed as children at our meals, the breakfast and tea meals were much like other persons'—of tea and bread-and-butter,—except that I remember that we used to have in addition, at breakfast, a good dish of roasted potatoes. For dinner we had vegetables and puddings of all kinds, and vegetable soups. A vegetable pudding we liked very much was a pudding made of an ordinary crust, and all kinds of vegetables inside, either baked or boiled. The general health of the family has been undoubtedly good, both before and after leaving the diet; and the four still living are all in good health.'"

Such was the diet with which Dr. Lambe lived a life of extreme muscular and mental activity, performing wonderful pedestrian feats when nearly eighty, and outliving all his college companions. His stomach seems to have accommodated any kind of vegetable food—raw potatoes and cauliflowers as a salad—"unchanged by culinary art, and uncorrected by condiments." At first his meals seemed hardly to fill or satisfy the stomach, but this inconvenience soon wore off.

The effect on his health was clearly satisfactory. The sick headaches which tormented him, and which he believed (probably with justice) had brought him to the verge of apoplexy, became gradually less severe; his mind clearer, and capacity for business greater. But he did not escape gout as life advanced, though it was satisfactory that the gout affected the feet, and left the head and stomach undisturbed.

Now, as for the notion that vegetable food alone is the "natural" diet of man, we hold it to be utterly untenable. For such an exclusive diet to be natural it must, first of all, be possible. People must be able to get it; next, they must like it; then it must agree with them. But the very experience of Dr. Lambe's own family shows that it is difficult to get vegetables in sufficient variety and abundance, and to get cooks to prepare them. It shows also that people brought up to vegetarianism from their youth may escape from it when they can; and there are many persons with whom it would not agree, even if they could be persuaded to try it.

But for cases of obstinate congestive headache, and for many of gouty dyspepsia, constipation, and hypochondriasis, the practitioner, if he does not find the usual course answer, may well try vegetable—or almost vegetable—diet. Now the usual course of dealing with acid dyspepsia is one which treats the stomach on the principle of giving it nothing to do.

"We see," says Inspector-General Hare, "hundreds of extremely moderate and temperate men around us, among the clergy and literary men, who are proverbial for bad health; and unhappily the more temperate, according to their system, they

(a) "The Life of William Lambe, M.D., Fellow of the Royal College of Physicians." By E. Hare, C.S.I., Inspector-General of Hospitals. London: F. Pitman, 1873.

are—that is, the more they confine themselves to what they call 'plain wholesome roast and boiled,' stale bread, and at most a potato,—the less their stomachs (from disuse) can digest fruit and vegetables. I have known these poor miserables beg their wives not to put any fruit or pastry on the table, because they could not resist eating it, and it always made them ill. A plum pudding, an apple or a plum tart, strawberries and cream (oh, horror!) are like melted lead in their stomachs. I recollect meeting a friend, a retired surgeon, who was very careful in his diet, and, as he looked very miserable, I asked him how he was. 'Oh,' he said, 'he was not at all well, for he had been fool enough to eat a strawberry the day before.' Compare this man with Dr. Lambe, who ate raw cauliflowers, and breakfasted often on raw potato salad!"

On the same principle brandy and dry sherry are given, and no claret. Moreover, the quantity of food allowed is apt to be too small, on the miserable Cornaro system. On the other hand, the physician who prescribes a chiefly vegetable diet must begin by trusting the stomach, and giving it plenty to do, without regarding a little difficulty at first. Moreover, there is no need for purism. It can be fanaticism only that objects to milk, eggs, butter, and suet; but with these and cheese, and greater liberality in the savoury vegetables, we think that not only the butcher's bill might be reduced, but greater health secured. But we are overrunning the limits of our article. We must put off to another season the task of advocating a greater use of vegetables; meanwhile, as an example of what a vegetarian can do, we may quote the example of Inspector-General Hare himself:—

"I could add to this," he says, "my own experience for twenty-seven years in India, during the campaigns with Sir Robert Sale in Cabool, in the siege of Jellalabad, in the Burmese war, and in the mutiny and siege of Delhi; during which time I can say with Mr. Jackson, a distinguished surgeon in the British army, 'My health has been tried in all ways and climates, and by the aids of temperance and hard work I have worn out two armies in two wars, and probably could wear out another before my period of old age arrives.' Mr. Jackson adds—'I use no animal food, drink no wine or malt liquors of any kind. I wear no flannels, and regard neither wind nor rain, heat nor cold, when business is in the way.'"

## RETROSPECTIVE MEDICINE.

The system of investigation and teaching, which during the past twenty-five years has been more or less extensively introduced into British medical institutions, has placed at the disposal of the promoters of medical science an ever-increasing mass of detailed information. The case-books of many medical hospitals and lunatic asylums are the repositories of close and long-continued observation of the phenomena of physical and mental disorder. Instances of both common-place and unusual forms of disease, recorded even to the minutest of their symptoms in origin and the most trivial of their changes in development, exist as a continuous record of the patient observation of enthusiastic students of medicine, guided by experienced teachers and subjected to the ready criticism of their fellow-students. In unsuccessful cases the results of post-mortem examination stand chronicled in intimate juxtaposition with the history of the disease, and the completed record of every case affords an opportunity of studying some particular instance of physical or mental disorder.

That the system of indefatigable case-taking has been of great service to the cause of medical education no one will be inclined to deny. That medical literature has greatly benefited by the current summary of interesting cases is equally incontrovertible. Some doubt, however, may be reasonably entertained whether anything approaching to the full scientific use has been made of the piles of dusty manuscript books which, gaining upon each other in a constant *crescendo*, are passed one by one from the publicity of a hospital ward and the dignity of frequent consultation to the seclusion of some obscure recess and the ignominy of uninterrupted neglect. Regarded from a utilitarian point of view, case-books, like newspapers, are apparently ephemeral. Medically speaking, they are "the abstracts and brief chronicles of the time," and it might even be said of them in a certain sense that "after your death you were better have a bad epitaph than their ill report while you lived." But case-books of a proper kind have a higher value than that which depends upon their temporary use. As the newspapers of the nineteenth century, carelessly thrown aside after the primary intention of their construction has been fulfilled, will be called into requisition as affording the best materials for the social history of the time, so hospital records, apparently ignored after the extraction from them of some comparatively limited principles, must remain as the substantial material from which wide generalisations can be formed by a retrospective method of investigation, completely free from the encroachments of contemporary bias.

The enthusiastic prosecution of medical research, more especially marked since the time of Cullen, and the almost unreserved opportunity which the current medical press affords for the publication of premature opinions, has led to the establishment of a system of narrow generalisation, and to the frequent publication of precipitate conclusions. This tendency, combined with the tenacity of the true Briton in clinging to an opinion which he has once publicly expressed, has led to a form of special pleading in medical literature and debate, conducted principally by the advancement of deductions from a limited number of cases, on the presumption that a case is too much of a reality to fail in the production of rapid mental conviction. In journals and societies opinions founded upon limited observations are met by others equally narrow. Polemical intensity appears in inverse proportion to scientific certainty, till not unfrequently an angry debate ends without any definite issue beyond the temporary cerebral stimulation of those who have taken part in it.

But the study of accurate case-books for a period extending over many years affords an opportunity for the establishment of scientific principles, not only on a better numerical scale, but free from the influences of contemporary speculation and theory. And not only does the exemption from the current eccentricities of science, and the larger number of cases upon which he is enabled to generalise, make the retrospective analyst a more trustworthy authority than the contemporary one, as to conclusions deducible from groups of cases, but the history of science shows that another notable circumstance determines his superiority. The acceptance of any scientific principle is greatly determined by three things—(1) its evidence of truth; (2) its accordance with the experience of those to whom it is propounded; and lastly, and often mainly, by the ability and enthusiasm of its advocate. The retrospective critic, examining the records of the practical observation and experience of his predecessors, can sift all evidence in such a way as to separate from the legitimate steps of a rational process the influence of the personal qualities of a partisan, by which his *ingenium perfervidum* so frequently deludes his own reason and establishes false doctrine amongst the preponderating class who accept whatever is sufficiently plausible to avoid the trouble of searching into that which is in reality true.

Thus, for many reasons, it would be advisable to disturb the dust which lies so thickly upon the completed case-books of medical hospitals, and especially to direct the attention of senior students and junior practitioners to the study of such cases recorded in them as illustrate revolutions in medical science. How interesting and instructive, for instance, would be the retrospective study of cases recorded in the middle years of the present century, when bloodletting was undergoing that eviction from medical practice which was so thorough and comparatively so sudden. From the present point of view it would be a lesson pregnant with instruction to judge, from past and present cases illustrative of the use of mercury, how easy it

is in science to "confute, change sides, and still confute," and to see how the common professional tendency to extremes either in denunciation or advocacy ought to be judiciously moderated.

As an instance of the rapid progress of psychological science during the past generation, it is interesting to observe that no case-books could contain a larger mass of interesting observations than those of scientifically conducted lunatic asylums. They embrace materials not only illustrative and explanatory of mental pathology and therapeutics, but sufficient to supply the basis of a system of philosophy founded on the appreciation of cerebral action as determined by inductive processes. Owing to the complexity of brain-functions, both normal and abnormal, extensive clinical observations can alone form the superstructure of a comprehensive system of psychology. The amount of professional ability which, during the past generation, has been concentrated on this department of medicine, justifies the expectation that lunacy case-books contain much material bearing on the problems both of psychology and metaphysics. The retrospective perusal of these manuscript books could not fail to be of universal benefit to society, both professional and general; and the perusal of the manuscript records of general hospitals should be able to yield materials for a wide field of medical generalisation, and to exercise a decided influence in moderating that *ex parte* advocacy of systems and principles which has too frequently converted one era of medicine into a pungent satire upon another.

## THE WEEK.

### TOPICS OF THE DAY.

Mr. John Liddle, Medical Officer of Health of the Whitechapel district, in his quarterly report, ending the 4th ultimo, shows that there has been a slight increase in the mortality in the district on the corresponding quarter of last year. The deaths from epidemic diseases in the entire district have been 64; in the corresponding quarter of the previous year the number was 61. The mortality of children under five years of age was 191, or 32·1 per cent. of the total mortality; in the corresponding quarter last year it was 34·7 per cent. Mr. Liddle makes some observations on the present defective arrangements to procure an accurate return of deaths in small districts inhabited by the poorer classes, which should, and we hope will, receive the consideration of the proper authorities, and lead to the adoption of such regulations as shall secure, as far as possible, the registration of the actual mortality of the districts. It appears that the records of the deaths which occur in the public institutions are not all forwarded to the sanitary authorities of the districts from which the patients had been removed, but only partially so. A great many of the poor in the Whitechapel district avail themselves of the advantages of the several great hospitals in London. Such arrangements, therefore, should be made with the hospitals, as will enable the medical officer of health to make a correct and full return of the deaths. Mr. Liddle adds that the water supply on the constant service is now general in the northern part of the district, which is within the water limits of the East London Company. From inquiries which the inspectors have made of the inhabitants, it appears that the change from the intermittent to the constant service has given satisfaction; and no inconvenience had been experienced by the inhabitants while the alterations in the fittings were in progress, and the expense has not been complained of, either to the Board or its officers. The cost of alteration has not been nearly so great as was anticipated, and the companies are desirous to lessen as much as possible the expense to the owners of property.

A charge of a very grave character against Mr. Pope, a surgeon at Brixton, has been the subject of a magisterial investigation at the Lambeth Police-court. At the adjourned hearing, last week, after a full and patient examination of the facts, the magistrate dismissed the case. This decision was received with applause. We rejoice that Mr. Pope has been entirely exculpated from the serious accusation preferred against him. An accusation, as it has been well said, is very easily made, but very difficult to disprove.

Dr. Alfred Hill, Medical Officer of Health and Analyst of the Borough of Birmingham, in his report for the quarter ending July 4 last, states that the number of deaths was 2079. In the corresponding period of 1873 it was 1931. The large increase in the number of deaths this quarter on the corresponding quarter of last year is chiefly due to the much greater fatality of small-pox and scarlatina, especially the former. Of small-pox 1303 cases occurred; 1158 of these were said to be vaccinated, 136, or 10·4 per cent., not vaccinated; in the other 9 cases it was doubtful whether they had been vaccinated or not. The deaths, numbering 196, consist of 129 persons said to be vaccinated, 63 not vaccinated, and 4 doubtful. The percentage of deaths to cases is 11·23 in persons described as vaccinated, 46·47 in the unvaccinated, and 15·04 in the total number. The percentage of total deaths to cases, though somewhat lower than that for 1873, when it was 15·36, exactly corresponds with that for the same quarter of last year. Dr. Hill adds:—

"It is to be hoped that the active means now employed to secure universal and efficient vaccination may in time banish the epidemic from among us, but it is impossible to blink the fact that the measures ought to have been taken long ago, or to avoid the conclusion that, in such an event, out of the 5190 cases and 783 deaths which have occurred since the autumn of 1871, a large number of both might have been prevented. The inactivity seems the more remarkable when it is remembered that the Vaccination Act is compulsory by law, and that the Local Government Board have repeatedly issued memoranda urging upon vaccination authorities, in times of an epidemic of small-pox, the importance of taking every means, including house-to-house, and even room-to-room, visitation, to bring all unvaccinated persons under the protection of vaccination."

The active attempts of the Sanitary Committee to establish a hospital for the treatment of small-pox have been so strenuously opposed, that their efforts have hitherto been frustrated; but we hope, for the health and credit of the town, they will before long be rewarded with success. As to adulteration of food and drink, sixteen articles had during the quarter been analysed.

The Town Council of Manchester appear to have in contemplation the adoption of some steps on the duties of coroners, with special reference to their own coroner. Mr. Mark Price, who seems to think the office of coroner something worse than useless, inquired, in reference to the matter, at a meeting of the Council last week, "if they would go to Parliament to abolish one of the greatest nuisances which could afflict a corporation." The Deputy Mayor stated, in reply, that a report relating to the subject would be in the hands of the Council in a short time.

The foundation-stone of a convalescent home at Margate, for orphans in connexion with the Orphan Working School at Haverstock-hill and the Alexandra Orphanage for Infants at Hornsey-rise, was laid on Saturday last.

### THE MEDICAL PROFESSION AND THE PREVENTION OF DISEASE.

At the Belfast meeting of the British Association for the Advancement of Science, Miss Mary E. Theedy, M.A., read a paper on "Reform in the Work of the Medical Profession," of which our contemporary, the *Times*, gives the following report. Miss Theedy said—

"The work of the medical profession at the present time seemed to be remedial rather than preventive, and physicians

attained fortune and reputation for the most part not by preventing the occurrence of diseases, but by effecting remarkable cures from protracted or severe cases. As medical practice was at present conducted, a strong temptation was unavoidably offered to physicians to promote rather than prevent ill-health. It would be better for the morality of the profession, as well as the health of society, that the physician should assume such a relation to those under his care that his reputation and income should depend upon his success. Such a relation towards society would give the practitioner the keenest stimulus to acquaint himself with all the conditions that affected the health and physical development, and also the strongest inducement to enforce correct physical habits upon those under his care. She suggested a new system for the education of physicians, and the employment of male physicians for men, and women physicians for women."

We must confess that we were disposed at first to regard this simply as an astounding display of ignorance of all that has for many years been done by the medical profession in initiating, urging, and carrying out measures of sanitary reform; and this seems to have been rather the opinion of Miss Theedy's audience: for we are informed that a short discussion followed, in which Mrs. Grey, Mr. Stuart, Miss Dod, Dr. Cumming, Dr. King Kerr, and Dr. Farr took part, and that—"A general opinion was expressed that ladies should be admitted to the practice of medicine, especially among women and children, but that no ground whatever existed for making any change as to medical men, who were well known to have written and laboured in the most disinterested manner for the prevention of disease." Still we could not but think that it must be impossible that a lady who has a right to place M.A. after her name, and who reads a paper before the British Association for the Advancement of Science, can be in a state of such crass ignorance of her subject as we supposed; and soon we humbly reflected that there is another way of looking at Miss Theedy's paper. We are taught that, of all knowledge, self-knowledge is the most difficult of attainment. Instead of believing that we, the medical profession, have habitually acted towards our patients in the very spirit commended by Miss Theedy, and have for years been labouring hard, and moving governments and powers to labour, for the prevention of disease, have we not been labouring under a gross delusion? and ought we not to think gratefully and humbly of Miss Theedy as a beneficent "fay,"—one of those fays or powers to whom the poet addresses the prayer that they would—

"the giftie gie us
To see oursels as others see us"?

### MR. JAMES LEWIS.

Our readers will be glad to learn that Mr. James Lewis, of the General Registrar's Office, has been promoted to an inspectorship for the purpose of carying out the Acts relating to the Registration of Births, Marriages, and Deaths in England. Our readers may remember that under the new Registration Amendment Act, passed last session, the medical attendants of persons who die are compelled to give certificates of the fact and cause of death; and it will be amongst the duties of the new registration inspectors to watch carefully, and note the results of the change from a voluntary to a compulsory system of medical certificates. It is gratifying to know that the newly appointed functionary, to whom a task so important and delicate is committed, is not only well qualified for the office, which he has well earned by a long series of laborious years, but likely to carry it out with the higher attributes of courtesy and thorough gentlemanly feeling. Mr. Lewis has been for more than twenty years assisting Dr. W. Farr in the Department of Medical Statistics; he has studied and written upon the registration of disease, and is thoroughly acquainted with the relations which the Statistical Department should hold to the Department of Public Assistance and State Medicine. Many of our readers know that Mr. Lewis is a writer of good, precise, and elegant English, and well believe that he will fill any position he may be called to, as a gentleman and a scholar.

### SMALL-POX AT NEWMARKET.

Small-pox has, through the praiseworthy exertions of the local authorities, and the kindness of the Jockey Club in giving up the grand stand as a hospital, been entirely stamped out at Newmarket. It is now nearly a fortnight since the last case, a mild one, was removed, and all the sufferers, both from the town and union, are in the hospital. Active measures have been taken by the Board of Health and Mr. Lamb (Sanitary Inspector) to purify the infected quarters: the houses of the sick have been whitewashed, the papering of the rooms removed, and the bedding and furniture destroyed or disinfected. The Union Workhouse is quite free from the disease, and has been disinfected. In the hospital the cases are fast approaching convalescence, and only three or four are confined to bed; most are able to be out in the air, and are waiting for the doctor's certificate to allow them to return home. The Local Government Board have directed Dr. Airy and Mr. Courtenay Boyle to hold an official investigation at Newmarket into the outbreak of the disease.

### ST. GEORGE'S HOSPITAL.

The alterations in St. George's Hospital, which has been entirely closed to the public since May 31 last, are now completed. The entire building has been thoroughly cleansed and repainted from basement to ceiling, the wards reorganised, and the walls stripped and repapered. The ranges in the kitchen department, and also in the general offices of the Hospital, have been removed, and new ones placed in their stead. A new heating apparatus, specially designed so as to maintain an equality in temperature, has been substituted for the original machinery. The sanitary arrangements have occupied the most serious attention of the authorities; the drains, closets, sinks, etc., throughout the whole building have been taken up and relaid afresh, the latest scientific improvements and discoveries having been employed in their reconstruction. The original contract, which was for £5000, has been considerably exceeded, as it was found during the progress of the works that a much larger outlay was required. The Hospital is to be reopened for the reception of patients on the 4th instant.

### LEAD-POISONING IN CHATHAM DOCKYARD.

Frequent cases of illness are reported to have occurred among the workmen in Chatham Dockyard, who are engaged in the double-bottoms of the iron ships building and fitting out there. The illness appears to present all the symptoms of lead-poisoning, from the fact of the men's clothes becoming thickly coated with white lead and other compositions used in the construction of these vessels. The matter was brought under the notice of Dr. Jack, the head of the medical department in the yard, who is of opinion that a great deal of this illness may be prevented if the men are kept constantly supplied with clean canvas suits. In accordance with this suggestion a number of women have been set to work to provide the additional number of suits required to meet the increased demand.

### CRIMINAL INOCULATION.

An inquest was held on Monday, at Castlebar, on the body of a child who, it was alleged, had died from the effects of inoculation, performed on it by a quack doctor, whose name is unknown. Small-pox has been prevalent in Castlebar, and the quack doctor had inoculated a number of persons, several of whom died from the effects of the operation. The jury gave a verdict of "Wilful murder against some person or persons unknown."

### FILTERS FOR THE ROYAL NAVY.

We stated the other day that we believed it was intended to introduce into the Royal Navy an apparatus for testing the purity of the water issued for drinking purposes, on board those ships to which a medical officer is attached; we now hear that the Director-General of the Medical Department of the Navy has further recommended to the Admiralty the necessity of filtering all water issued for drinking purposes. With a view of carrying out the suggestions of Sir Alexander Armstrong, the Admiralty have ordered a number of filters on the charcoal block principle, and these are now in course of delivery at her Majesty's dockyards at the different ports, including one of a capacity of twenty gallons for her Majesty's troop-ship *Simoom* at Devonport.

### SO-CALLED ACCIDENTAL DEATH.

The poisonous condition of the waters of some of the rivers in this country is alarming. At an inquest held on the 13th ult. by the coroner at Salford, it appeared that the deceased fell into the Irwell while looking at the regatta. He was in the river about ten minutes, when he was helped out, but died in forty-eight hours. He was a teetotaler. The medical attendant, after detailing the disorders from which the deceased died, and which were caused, he said, by the immersion in the water, added that many of his (witness's) patients were suffering from illness caused by inhaling the noxious gases of the river while they watched the regatta crews practising. The jury returned a verdict of "Accidental death." Under the present circumstances, the verdict is no doubt correct; but the state of the river certainly ought to be looked to.

### A NOVEL USE OF THE ASPIRATOR.

A general practitioner, Dr. Hyatt, living in Kinston, North Carolina, lately resorted to a novel way of saving his patient from death by opium poisoning. A negro woman had taken a large quantity of laudanum with suicidal intent, and was fast approaching fatal narcotism when Dr. Hyatt was called. He had just received an aspirator, and hastening to the bedside of his patient drew off the contents of her stomach, and the result was perfect recovery. Perhaps this is the first time the aspirator has been so applied.

## OVERCROWDING IN RURAL DISTRICTS.

We have before us the first annual reports of some of the provincial medical officers of health. These reports furnish most valuable information with reference to the sanitary condition of the districts over which they have been appointed as health officers. Variations of climate, geological strata, topographical peculiarities, physical condition, sources of water-supply, existing methods for surface drainage, the removal of excrementitious matter, and the prevalence of epidemic disease, are the subjects principally referred to in the reports. One of the subjects discussed in these reports admits of no variation in the evil consequences resulting from it, and in the means proposed by the sanitary officers to avert them. We refer to overcrowding of the poor in rural districts. When the memorial of the College of Physicians on overcrowding was presented to Parliament, it was supposed that the evils complained of referred mainly, if not exclusively, to the densely packed districts of St. Giles's, Whitechapel, and Westminster, where pestilential miasms and fever are permanently lodged and engendered. We find, however, by the reports of the medical officers of health that provincial towns and villages are quite as densely crowded and insalubrious.

Dr. Bond, in his report for the Gloucester Union of Sanitary Authorities, states that in many parts of the county a vacant house is not to be found. In every part of the district houses exist which have become so dilapidated that they are simply uninhabitable. Built frequently on a damp soil, with no provision for drainage, without any protection against the constant soakage of water into the walls, with roofs that are often defective, etc., etc,—such are the homes in which too many of the poor are called upon to live.

"No new and better houses are springing up to replace the old and decaying ones; either the land on which they must be built is held with an iron grip which refuses to yield even to the temptation which safe ground-rents offer, or the inducement to invest money in cottage-building is not sufficient to lead ordinary speculators to undertake it. There are many places in Gloucestershire where there is an active demand for good cottages, but where not an inch of land can be got on which to build them. On the other hand, even where land can be had on reasonable terms, the wages of an ordinary labourer do not, as a rule, allow of his paying such a rent as will give a fair market return on the cost of building a decent house for him. The only way of attacking dilapidated or ill-constructed houses is as nuisances, and the definition of a nuisance is so framed that it is extremely difficult to prove that in each special instance such a house is prejudicial to health, so that the result of an indictment may be looked on as very uncertain. And even where the owner is compelled to carry out substantial repairs, the result is to raise the already too often exorbitant rent, and thus to punish the tenant, who, as a consequence of the interposition of the sanitary authority in his behalf, may be driven from his house into a worse one still. On this account I have found that occupants are often very chary of complaining of the defects of their houses, preferring rather to bear the ills they have than to invite others for which a remedy might be less easily provided."

Such statements as these furnish conclusive evidence that legislation to be effective must be comprehensive, and apply equally to the cottages of the farm labourer as to the densely packed "rookeries" of the metropolis. For in addition to the evil effects of overcrowding, we have to bear in mind the almost total disregard of any arrangements for the disposal of sewage in country villages. The mortality tables of London have been considerably reduced since the main drainage works have been completed, while the mortality in rural districts is steadily on the increase. In both, on account of heavy rents, overcrowding is becoming a serious evil.

Mr. Hinckes Bird, Medical Officer of Health for the Fylde Districts, reports that—

"Most of the cottages are low and damp, with cold stone or clay floors, undrained, overcrowded, and ill-ventilated, and in short everything is done to counterbalance the advantage offered by nature of a plentiful supply of pure air. The filthy ash heap, the leaky cesspool, the excrement-sodden soil, the polluted well, and heaps of decomposing matter around, all conduce to fever, diarrhœa, and phthisis, and explain with irresistible force to the sanitary reformer why it is that in so many of the villages

> "'Childhood's cheek no longer glows,
> And village maidens lose the rose.'

In some instances I have found them so overcrowded as to allow even less than ninety cubic feet of space to each individual, whereas 240 cubic feet is the minimum allowance fixed for each person in the regulations for metropolitan lodging-houses, while authorities on hygiene insist on a much larger amount."

Again, the Commissioners appointed to report on the employment of agricultural labourers, especially of children state that—

"Though much has been done towards remedying the omissions of past generations in this respect, a large portion of the agricultural labourers throughout the country are still housed in dwellings in which they cannot fail to be subjected to great and serious discomforts, and in which the decencies of life are almost impossible."

Mr. Gilbert Child, Medical Officer of Health for Oxfordshire, reports that cases are constantly brought before him in which six, eight, or even ten people are sleeping in single rooms of cottages most faultily constructed.

"I have entered many which are damp and clammy, with broken windows, plaster dropping from the ceilings, stairs half broken away, holes in the roof letting in the weather upon bundles of foul sacking and rags, which represent a bed and clothing. The demand for cottage accommodation far

exceeds the supply, and, unless some legislative measures are adopted to equalise the two, it is not easy to see how the evil is to be met. Cottage property pays badly, and the worse the accommodation the better it pays."

We might have made quotations from the reports of other medical officers of health, but enough has been said to show the imperative necessity of some attention being given, on the part of landowners and proprietors in and out of Parliament, to the better housing of the poor in country districts as well as in the densely populated parts of the metropolis. Let the farm labourers be better paid, and we may hope that one step towards this desirable object will then have been made.

## LYMPHADENOMA OF THE SKIN.

In his recent lectures at the College of Surgeons, Professor Erasmus Wilson called particular attention to a most remarkable case of ulcerating lymphadenoma of the skin, which is illustrated by the models Nos. 405, 406, and 407. Alibert has described something similar under the name of "mycosis fungoides," and Hillairet, of the St. Louis Hospital, names the present case "lymphadénie cutanée."

The patient was a woman, aged forty-two at the time of her death, who had been healthy all her life till the age of thirty-seven. At this period, without any constitutional symptoms, a blotch resembling eczema, red, moist, and accompanied with itching, appeared round the umbilicus, and was soon after followed by similar patches on the thighs and legs, and on other parts of the body in succession. Some patches desquamated, and the skin recovered its normal appearance, while fresh ones came out elsewhere. At the end of a year she was admitted into the St. Louis Hospital, and discharged cured in two months, but six months later the disease again broke out more extensively than before, and invaded not only the body and limbs, but also the head. She was again three months in the St. Louis wards, but was again attacked on leaving them, and for more than three years the eruption maintained its former eczematous character. At length a new feature became superadded. Tubercles appeared in the skin of the chest and in the left mamma, which in five months became as large as a child's head, though without pain, redness, or enlargement of vessels; but through the irritation of an ointment used with the hope of reducing it, it at last ulcerated, suppurated, and threw off sloughs of sphacelated tissue. Other tubercles continued to appear on the chest, abdomen, and in the left axilla. The patient suffered from loss of sleep, from the pruritus which the eruption occasioned. She had diarrhœa, anorexia, and stoppage of the menses, and she was at last again admitted into the St. Louis Hospital, twenty-six days before her death. She then had eczematous patches, tubercles, and ulcers all over the trunk of her body, and she was much emaciated.

The tubercles varied in size from a pea to a hen's egg, their average size being that of a hazel-nut. They studded the front of the trunk and abdomen, the largest being on the left mamma, over the umbilicus, and in the right groin. They were pale, smooth, and quite free from vascularity, and could be easily moved with the skin. Many of the smaller, and most of the larger ones, were ulcerated. The ulcers were superficial, with vertical edges free from thickening. The smaller ones were more or less circular, but some were irregular in shape, evidently from several having coalesced. Some of the tubercles had subsided, except a narrow ring of thickening, and others had only left a deep brown circle of pigmentation. In the axillæ there were corrugated cicatrices. The pubes and axillæ were hairless. The arms were emaciated, and covered with erythematous desquamating patches, papules torn by the nails, and scratch-marks; while on the outer border, towards the axillæ, there were tubercles like those on the abdomen. The nails were stunted, thickened, and claw-like. The patient's face had more or less circular squamous patches of eczema on it, and the angles of the mouth were fissured.

After entering the hospital she rapidly got worse; diarrhœa continued, and there was delirium and great prostration. Aphthæ appeared in the mouth, and she died with hypostatic œdema of the lungs. There was no albumen or sugar in the urine, but the blood contained an excess of white corpuscles.

At the post-mortem examination, the liver and kidneys were both fatty; the spleen was normal in texture, though slightly enlarged. The lymphatic glands throughout the body were all enlarged. Some of the tumours of the skin had entirely disappeared; all were much smaller than during life, and only the largest could be examined. They occupied the whole thickness of the corium. Dr. Ranvier, who examined them, found that they gave a juice when scraped, which was full of cells like those of a lymphatic gland. The cells were protoplasmic, without any enveloping membrane, and some had several nuclei. The tumours were made up of a reticulum of adenoid tissue, traversed by capillaries which were enclosed in an envelope giving off processes. There were no white corpuscles in the capillaries. The tumours were, therefore, evidently new formations of lymphatic tissue in the true skin, and Mr. Wilson believes that they owed their origin to the irritation set up by the previous eruption of eczema on its surface. He is inclined to believe that the difference between lymphadenoma and leucocythæmia is, that one arises from external irritation and the other from internal causes.

Since this lecture was delivered a very interesting paper has appeared in the "Annales de Dermatologie et de Syphilographie," by Dr. E. Demange, *interne* of the St. Louis Hospital, in which he gives details of two more cases similar to the above, and refers to six others, probably of the same nature. In four a microscopical examination showed that the tumours were made up of adenoid tissue. Dr. Demange sums up the general characters of this disease somewhat as follows:—Syphilis could be excluded in all the cases, as also scrofulosis. The youngest patient was twenty-eight, the eldest sixty-nine. Six were males, two females. The affection begins insidiously, with patches resembling eczema, on different parts of the body, which come and go, and after a time are succeeded by lichenous eruptions, attended with intense pruritus. These are after some time succeeded by the cutaneous tumours, but cases have occurred in which the latter appeared first. It is unnecessary to repeat the description of the tumours themselves, but we may add to Mr. Wilson's account the fact that they are uncertain in their appearance, coming sometimes with the first erythema on the skin and sometimes fifteen to eighteen months later. They are also sometimes violet-red instead of pale, and they never become pedunculated. When they have reached a certain size some of them retrograde and disappear, while others (always the largest) ulcerate. In one instance, not only did the tumours ulcerate, but also the intervening patches of eczema. In none of Demange's cases was there any increase in the white cells of the blood, or sugar or albumen in the urine. The lymphatic glands were enlarged in all the cases except two, but without ulceration. Death resulted from cachexia, intelligence remaining intact to the last.

The diagnosis is practically impossible until the tumours appear, and then syphilis can be excluded by all absence of other traces of its presence, the failure of iodide of potassium, and the general enlargement of the lymphatic glands, for at this period of syphilis they are no longer enlarged.

Dr. Demange, in conclusion, remarks that we must at present accept *three* forms of lymphatic disease—(1) leucocythæmia, (2) lymphadenoma or *adénie*, (3) lymphadenoma of the skin or mycosis fungoides. The question for future observers to clear up is the relation between them. A coincidence of all three in the same subject has never yet been seen, nor has cutaneous ulceration in any well-authenticated cases of leucocythæmia or Hodgkin's disease.

## FROM ABROAD.

### Circular of the French Minister of War.

Prof. Alglave publishes in the *Revue Scientifique* for August 1 a circular which has recently been forwarded to the Commanders of Army Corps by General de Cissey, Minister of War:—

"I have been informed that a memoir of a scientific character relating to the artillery service has been, in the form of a note, communicated by its author, who belongs to the army, to a distinguished learned body. The study of those sciences and arts in the progress of which the army is concerned should certainly be encouraged amongst all officers; but it is absolutely contrary to the principles of the hierarchy and to established rules that the result of these studies should receive, in any form whatever, without the control of the superior authorities, a publicity which in some cases might not be without its inconveniences. Circumstances may so occur, in fact, that a

communication of this kind might risk degenerating into divulgations at least useless, in adverse criticisms on the military establishments or services, or even into personal pleadings. It is ordered, therefore, that no officer or functionary under the authority of the Minister of War, address, without preliminary authorisation, to any learned body whatever which publishes its proceedings, communications relating to the different services of the army. I beg of you to communicate this regulation to all officers under your orders."

This circular Prof. Alglave regards as inflicting a blow upon serious attempts at reorganising the French army; for it not only prohibits, as discipline would quite justify it in doing, discussions and criticisms by officers in the daily papers, but absolutely prevents any scientific communication on military matters, unless permission has been accorded by the superior authorities, which means the ministerial bureaux. Improvements in the artillery service, for example, may easily be retarded by such a rule; for the "military committees," by whom these are determined upon, have always shown great repugnance in admitting improvements upon what they have approved, and are too apt to oppose the discussion of the utility of these by competent scientific persons beyond their own circle.

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### Professor Wurtz on the Modern Progress of Science.

Almost contemporaneously with the delivery of Prof. Tyndall's eloquent discourse at Belfast, Prof. Wurtz, as President of the French Society, has been giving his at Lille; and although not of a speculative and controversial character, like that of his English *confrère*, it has been pronounced a most distinguished success. It chiefly related to the history of the progress of chemical and physical science, and their relations to each other. Some of the preliminary passages which have been much admired we transcribe. After describing Lord Bacon's conception of a society of men devoted to the cultivation of science, the organisation and influence of which he details so elaborately in his "New Atlantis," Prof. Wurtz goes on to say:—

"This grand exploration of the earth which he wished to institute, this patient and exact searching into the laws of the universe, this measured intervention of science in the things of life and the world—could all this be the work of his own time? He knew it too well to dare to hope for this, and this is doubtless the reason why he placed the fortunate country which possessed so noble an institution in the solitude of the great ocean.

"Three centuries since, this conception of Bacon might pass for a generous utopia, but at the present day it has become a reality. The magnificent programme which he then traced out is, gentlemen, our own. Our own, not in the restricted sense of the word, for I extend it to all those who in modern times and in all countries are engaged in the search for truth; to all the artisans of science, humble or great, illustrious or obscure, who form, in reality, at all points of the globe, and without distinction of nationality, that vast association which Francis Bacon dreamt of. Yes, at the present day science is a neutral ground, a common possession placed in a serene region, above the political arena,—and would that I could say, inaccessible to the strifes of parties and of peoples. In a word, it is the patrimony of humanity; it is also the principal conquest of the present age, which my illustrious predecessor has designated the age of science.

"Modern generations are, in fact, present at a magnificent spectacle. During the last hundred years, the human intellect has directed enormous effort to researches into phenomena and the laws of the physical world; and hence has resulted a surprising development of all sciences founded on observation and experiment. The new ideas which have sprung up in our own days concerning the correlation and conservation of forces have been as a revelation for some of these sciences. Mechanics, physics, chemistry, and physiology itself have therein found at once a basis and a bond of union. And this powerful rush of ideas has been sustained by the progress of methods: I mean to say, by the more attentive exactness of observation, the more perfected delicacy of experiment, and the more rigorous severity of deduction. These are the springs of this progress which impels science, and of which we are the astonished and impressed witnesses. It is to propagate it far within our country that we hold every year these assizes, to which are convoked all those who participate in, or are interested in, the struggle with the unknown. The struggle with the unknown—that is science: for if in letters it suffices to give an expression, and in the arts a body to conceptions, or to beauties eternally deposited either in the human intellect or in nature, this is not so with science, where truth lies deeply hidden, and must be snatched like fire from heaven."

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### Prevention of Hydrophobia.

This subject has been occupying much attention in the United States as well as in Europe; and recently Dr. Russell read a paper before the Medical Society of the County of New York (reported in the *Medical Record*, July 1) with the view of suggesting the best precautionary measures. After an elaborate descriptive and statistical account of the disease, he observed, with respect to prevention, that the method at present pursued in New York, of requiring dogs to be muzzled, is quite ineffective, for it is only enforced at a time of the year which statistics show to be when dogs are least liable to the disease, while practically it does not amount to the protection even of the owner of the animal, since the muzzle is removed when the animal is at home. The plan which he advocates is that all dogs should be required to wear a collar carrying the name and address of the owner, and the number of the licence; that owners of dogs should be instructed in the symptoms of rabies, and that every sick dog should be submitted to the inspection of a municipal expert. In the discussion which followed the paper, Dr. Garrish laid great stress upon the fact that the affection was commonest among, or entirely confined to, pet animals. Prof. Dalton said that, notwithstanding his intimate acquaintance with dogs (we imagine, however, that "pet" dogs are not those with whom the Professor's scalpel usually comes in contact), he had never met with one suffering from rabies, although he had seen many which had been said to be mad, but which, on careful examination, were proved to be sick of some other disorder—as, for example, epilepsy. He quite approved of the suggestion of substituting for the muzzle the numbered collar, and if dogs without such evidence of ownership were systematically destroyed, we should then have a guarantee that all dogs allowed to live would be under the inspection of their owners. If, then, information with regard to the symptoms of rabies were made general, and owners required to take suspected dogs to some place where they could be examined by an expert, far better protection would be afforded than by the mere ordering that a muzzle should be worn in the streets. The public have an idea of three cardinal points in judging whether a dog is mad or not. They think that he has only the disease in hot weather, that hydrophobia is a constant symptom, and that a rabid dog is invariably savage and aggressive. Owing to the faulty nature of public information on the subject, many wounds have doubtless been contracted from animals who had not, in the absence of the above circumstances, been noticed to be diseased. Prof. Dalton hoped that the information contained in Dr. Russell's paper would be condensed and freely circulated by the Board of Health, especially at police-stations and other public places. With respect to *shyness*, which has been stated as a characteristic of the early stages of rabies, according to his own experience *all* sick dogs are shy. When a dog has an inflammatory disorder, or even a derangement of the digestive system, his instinct leads him to retire to some hiding-place, and stay there. The rabid dog has also this symptom in the earliest stage, but he then becomes restless, and remains only for a short time in one place. Another point in the diagnosis is that his appetite is not lost but depraved, so that the dog will eat his own dung, bits of wood, or charcoal, etc. He gnaws furniture, and tears up and swallows bits of clothing, carpeting, etc. Small pets will frequently tear and destroy furniture and clothing, but they will not swallow the pieces. Prof. Dalton believes that nineteen out of twenty dogs said to be rabid are only epileptic, and the stupid practice of killing suspected dogs prevents our establishing the fact, and increases the prevailing popular prejudices.

[Surely our own authorities may advantageously adopt the numbered collar suggested in the above. It is desirable both on fiscal and sanitary grounds, for at present numbers of dogs escape the licence fee, while, were each obliged to wear its collar, with address and registered number, the responsibility of its owner would become a reality instead of—as at present—a farce.]

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Sir Edward Watkin calculates that in England there are 17,000 violent deaths every year, against which he sets forty-two deaths from railway accidents.

## REVIEWS.

*Résumé d'Anatomie Appliquée.* Par V. Paulet, Professeur à l'Ecole de Val-de-Grâce, Médecin-Principal d'Armée, etc. In 18 dia., pp. 499. G. Masson, editeur. Paris, 1874.

This work forms one of a manual series now publishing in Paris, and may be regarded as a paraphrased summary of the course given by Professor Paulet at the school at Val-de-Grâce. The object of applied anatomy is to study the different parts of the body with reference to their mutual relations, and to indicate all the practical deductions which may be derived from it. These are particularly those pertaining to operative surgery, and to medical and surgical diagnosis. The study of applied anatomy must necessarily succeed that of descriptive anatomy, and should be regarded as a corollary to it. Whilst the latter considers successively the different systems of organs, bones, muscles, ligaments, etc., the former regards these structures in their order of superposition. With a view of rendering this study methodical, the body is subdivided into a number of arbitrary "regions." To examine a region we must consider—1. Its absolute situation; 2, its relative situation; 3, its limits; 4, its form; 5, a description of the several planes composing it; 6, a description of the vessels and nerves contained in these planes; and, lastly, the applications to practical surgery which should follow immediately upon the anatomical demonstration which has formed its basis.

This method has been followed by M. Paulet in the work before us. Like all works on surgical anatomy, it presupposes a knowledge of descriptive. It is divided into fifty-one *leçons*, or demonstrations, which, whilst they contain in the smallest possible compass all such anatomical facts as in any way bear upon medicine or surgery, are carefully pruned of all extraneous matter. The practical applications are rather hints than processes, very concise, suggestive, and quite *au courant* with all recent improvements. The work is neatly got up, in a limp cover, and makes a very handy pocket volume. For all who require a more advanced work, we should recommend the author's large "Traité d'Anatomie Topographique," in which he has had, as collaborateur, M. Sarazin.

## NEW BOOKS WITH SHORT CRITIQUES.

*Hints on Public Health.* By Dr. Henry J. Alford, Medical Officer of Health, Taunton Sanitary Districts. Somerset and Bristol Steam-printing Press, Taunton.

*** Encouraged by the testimony given of their appreciation, Dr. Alford has been induced to publish in a collected form the "Occasional Papers on Public Health," which he wrote in the *Somerset County Gazette*. This little brochure is full of clear, intelligent, and important information and advice on sanitary matters. The professional and general reader will alike derive much serviceable knowledge and be well repaid by a perusal of it.

*The Indian Medical Officers' Vade Mecum, etc.* By C. R. Francis, M.B., Bengal Medical Establishment. Wyman and Co. Calcutta.

*** We have received a copy of Dr. Francis's "Indian Medical Officers' Vade Mecum," just published in Calcutta. The author has produced this work in the hope that it may be found to possess general interest for the profession at home as well as in India. He proceeds, therefore, to describe the career of a medical officer in India. That he has done so accurately the local journals amply testify. He gives the fullest information on all grades of the medical services. There is no work of the kind extant, that we are aware of, and young surgeons who have some thoughts of making India the land of their adoption, would do well to possess themselves of it.

The trustees of the Cholmondeley Charities have made a second grant of £25 in aid of the Royal National Hospital for Consumption, located at Ventnor. Of the separate houses, or hospitals, of which this well-known institution is intended to consist, all have been built or are in course of erection but two, for which there is very urgent need. The Committee in a recent report state that the applications are much in excess of the present accommodation. Funds are needed to furnish some of the houses, and to clear off a large building debt on the chapel.

## FOREIGN AND COLONIAL CORRESPONDENCE.

### AMERICA.

Philadelphia, June 15.

Annual Meeting of the American Medical Association at Detroit.—Sectional Work.—Section on Obstetrics and the Diseases of Women and Children. Section on Surgery and Anatomy: The President's Address—Professor Moore on Epiphysial Fracture of the Superior Extremity of the Humerus—Dr. Sayre on the Treatment of Fractures—Prolonged and Important Discussion on Shortening after Fractures; Resolutions—Dr. Beard on the Use of Electricity in Various Diseases—Professor Gross's Address on Syphilis.

*II.—Section on Obstetrics, and Diseases of Women and Children.*

The time was chiefly devoted to the discussion of transfusion and ovariotomy, the examination of instruments employed in surgical midwifery, the theory of generation, inversion of the uterus, modifications of the pessary, etc. Several of the principal gynæcologists of the country participated in the discussion. The chairman, Dr. Parvin read an address to the whole Association, on "Uterine Hæmorrhage" and other important points connected with the diseases of females, which attracted much attention from that body.

*III.—Section on Surgery and Anatomy.*

Professor Samuel D. Gross (chairman) stated that the members had not met here for the purpose of shaking hands and giving expression to cordial greetings, but for the purpose of inaugurating a new era in the history of the Association in *working* to the point. That is what we *must have*, to give credit to the Association and to place us in a proper position before the American people—work. He was struck by one feature of the Association—the number of grey-headed and bald-headed gentlemen, giving the Association at its assembling this morning a venerable appearance. The meetings of the British Medical Association were composed for the most part of men who had passed the meridian of life, while the opposite of this was a striking feature in the meetings of the American Medical Association held hitherto. He was glad to see the younger members present, no matter how young. But from the present gathering of men of middle age it seemed to him as if a point in the history of the Association had arrived which augured well for the future.

After the reading of a paper by Dr. A. Dunlap, of Ohio, on "Enchondroma," Professor E. M. Moore, of Rochester, New York, presented an interesting contribution on the subject of "Epiphysial Fracture of the Superior Extremity of the Humerus." Professor R. W. Smith has stated that separation of the humerus at the line of junction of upper epiphysis and shaft is not uncommon in early life. The head of the bone can be distinctly felt in the glenoid cavity; a slight depression is felt beneath it, the head remaining motionless when the shaft is rotated. A striking and abrupt projection is observed beneath the coracoid process, caused by the upper extremity of the shaft being drawn inward by muscular action. The shaft seldom clears the head, and hence the small amount of shortening. This projection is smooth and slightly convex, in contrast to the irregular margin of ordinary fracture. The elbow projects but little from the side, and can be readily brought in contact with it. Pressing the upper end outward while holding the elbow to the side and making extension and counter-extension, the deformity disappears, to recur as soon as left to unopposed muscular action. Diagnostic points are—first, the projection beneath the coracoid, and second, the immediate recurrence of the deformity when the means for reduction cease retaining the shaft in place, there being no fracture of the superior end of the humerus in which retention is so difficult. In general the true nature of the injury is unrecognised, although the symptoms have been clearly stated by Sir A. Cooper, and Professors R. W. Smith and Frank H. Hamilton. This arises from no accurate conception of the change of position having been put forth, and no method securing precise retention having been proposed, in so far as he (Dr. Moore) was aware. The symptoms of this fracture are striking and uniform. The shaft of the humerus is so inclined as to carry the elbow a little backward and outward, while the superior end of the

shaft is brought forward so as to make a prominence less rounded than the head and lower down. It is usually found an inch and a half (at the age of twelve or fourteen) below the acromion and near the coracoid process. The curved line from the acromion down to the projection has a long sweep instead of the small sphere of the natural head. This appearance is pathognomonic, and may be safely trusted in diagnosis without insisting upon crepitus. As in other epiphysial fractures, this is not clear and sharp as when the fracture is of bone, but is muffled. When the arm is moved gently and without grasping the head, the peculiar lock of the surface is sufficient to cause the head to rotate, and thus the timid practitioner fails in getting his pathognomonic sign; but if the head be firmly grasped it can not only be felt in the glenoid cavity, but held with sufficient firmness to get this muffled crepitus by rotating the humerus or by carrying the elbow inward, and thus rubbing the two surfaces on each other. In addition to these striking symptoms we may add a shortening of half an inch or a little more. When the two shoulders are inspected from behind the impression given is that of luxation, for there is a slight flattening of the shoulder produced by drawing the fibres of the deltoid a little forward. The breadth of the shoulder is also increased when seen in profile. The motions of the arm are somewhat circumscribed: the ability to carry it upward and forward as well as upward and outward is impossible much beyond a right angle with the body, but affects the rolling of the scapula so that the hand can be placed on the head. Reduction is effected by carrying the arm forward and upward to the perpendicular line. Retention is effected by moderate extension while bringing the arm down by the side, maintaining this slight extension until dressings for the purpose of continuing it are applied. Swinburn's method fulfils the indications easily and perfectly. Even if not restored the arm soon becomes useful and nature gradually rounds off the prominence of the diaphysis and elongates the capsule at the lower border, allowing the motion upward to improve.

The paper of Dr. Moore, who is regarded as a very excellent authority on the special subject of fractures, elicited considerable discussion. It was suggested, for instance, that this fracture could with difficulty be distinguished from fracture of the anatomical neck. Fracture at the epiphysial line will give the symptoms, it is true; but considering the attachment of the supra-spinatus, infra-spinatus, and teres minor muscles, with the action of the biceps, one would expect the symptoms in fracture of the anatomical, and perhaps, too, of the surgical neck. Dr. Moore explained that epiphysial fracture could happen only before ossification has occurred, the age for which differs. From Sir A. Cooper's and R. W. Smith's report he had supposed sixteen to be the limit of age, but Hamilton's case gave the symptoms at nineteen. Ossification may not be complete until the twenty-fifth year. During adolescence the epiphysial line is the weakest place; and hence fracture is more likely to occur there. During this age suspect epiphysial fracture. This fracture was not like any other, because it has a specific and definite line, while other fractures have an indefinite line through the anatomical or surgical necks or through the tubercles. In reply to a question why this fracture was so liable to be mistaken for fracture of either neck, Dr. Moore replied that when the bones are brought into place they are held there by the action and pressure of the muscles. The head rolls around, but does *not* produce the pathognomonic crepitus—at best giving only a muffled crepitus. Again we have mobility, not found in dislocations. The error in diagnosis occurs because the profession did not know what to make of it. The error should not be made because of the prominent projection, and because the forces acting upon the fragments are uniform. We do not have this projection in fracture of either anatomical or surgical neck.

Professor Gross being requested to express his views on the paper read, said that he endorsed Professor Moore's views fully. He considered Professor Moore the best authority on the subject in the country.

Dr. Lewis A. Sayre, of New York City, presented statistics taken from Bellevue Hospital, prepared by House-Surgeon Van Wagner. He had lately learned of actual cases really treated by what he supposed to be the obsolete method of waiting nine days for the swelling of the soft parts to subside. Again, most authorities on fracture stated that in fractures of the long bones, particularly if oblique, we were to expect deformity. Some say it is quite impossible without it. He thought this wrong, and the sooner corrected the better. Statistics proving shortening should only be saved to be disentombed to assist in defeating suits for malpractice. The long bones keep the body in place. Fracture occurring, the muscles contract and produce distortion of the vessels and nerves, the ends of the fragments causing irritation and inflammation. All that is necessary in any fracture is extension and counter-extension in the right direction, so as to have accurate adjustment. Again, a fracture should be reduced as soon as you reach it. In all long bones it can be done with ease by extension and counter-extension. There was no vacuum in the thigh, for example; and if the femur was removed it would leave the mould of its form there if sufficient extension and counter-extension were made with perfect accuracy of adjustment. He illustrated by a very simple apparatus of wood and indiarubber cords the operation of the muscles upon the fractured bones. This idea he had got from Dr. Swinburn, of Albany. If extension greater than normal be made, it would cause reflex contraction and irritation; but if only enough for adjustment, all was quiescent. After adjusting it we may have just enough fixation for accurate retention. Again, we must not wait for the subsidence of the swelling of the soft parts. Guttapercha, as a means of retention, should be done away with, because of the foul odour produced; but we might use starch bandage, plaster of Paris, or leather. In compound and complicated fractures the principle is the same, even in the extreme case of severe mangling from railroad injury. With perfect adjustment we have no pain. We can also send the cases into the open air. If the treatment be fairly applied we have no shortening. In point of fact, it should be longer by the thickness of the matter between the ends of the fragments. Of 115 cases treated in Bellevue some are longer, some without shortening. Many have the sixteenth or the eighth of an inch shortening. Excluding three cases, one of which had two inches, the second one and three-quarters, the third one and a half, these cases suffering respectively from abscess, delirium tremens, and pneumonia (which being kept horizontal had permitted shrinkage and hence shortening)—excluding these, a very highly favourable average had been obtained.

Dr. Hodgen, of Missouri, objected that if a thigh be placed in the plaster-of-Paris splint in the straight posture, the muscles on the back of the thigh will be tense and in front lax. We cannot bring *all* the muscles to a state of normal extension at the same time, and hence a position in which there would be no reflex irritation would be marvellous. In general, spasmodic contraction would occur. Dr. Sayre has said it does not matter what means are taken, so we succeed. But what means are we to use? Again he says, do not make it too long! Now, the calcareous matter at the end of the fragments would soften and tend to produce shortening. If a fracture be oblique, something more than plaster of Paris is needed—otherwise not.

Dr. Sayre had said that extension and counter-extension should be made in the proper direction, and then on no side would any muscle be stretched. All he had claimed was that it was better to start with the idea that we could secure perfect results rather than that we must necessarily have shortening. In fracture of the femur we are to have the thigh-piece capable of being lengthened or shortened if treated upon the inclined plane. This was first accidentally ascertained by Dr. Nelson, of Lower Canada, where a lumberman had both thighs broken, and by chance had got upon a ledge of rock whose width was precisely the length of the thigh—such being the relief of pain that the man had fallen asleep. Taking the hint he made an inclined plane to suit the thigh, and had a perfect result at the end of two months. Dr. Nelson was then sued for the alleged malpractice of keeping his patient unnecessarily confined, and had to flee his country.

Dr. Gregory, of St. Louis, expressed his astonishment. He thought Dr. Sayre's results barely possible, and wanted further evidence. He treated his cases by extension and counter-extension, with all the perfection of adjustment possible with mechanical appliances. If he had seen fractures occur without shortening he had forgotten it. He had seen young persons get well without shortening of the limb as a whole. We all know that we cannot get union of bones or soft parts without previous softening. There is necessarily some loss of material where there is inflammatory action. Inflammation always consumes some of the soft parts. A young person getting no shortening might be accounted for by irritation, but he did not think an adult could get union without shortening. Again, precise adjustment was practically impossible. The new material used in repair will con-

tract, even if the injury be the simplest cut in the finger. If fractured limbs are as long, it is to be accounted for by growth somewhere else. Plaster of Paris has the advantage of allowing patients to go about, but he thought the best results as regards proper length would be obtained by the use of extension and counter-extension. He thought plaster of Paris just as suitable in treating injury of the soft parts as of bones.

The statistics of results of treatment given by Dr. Sayre from cases in Bellevue Hospital were so exceedingly favourable that many of those present, who argued from their own experience in similar cases, were somewhat startled. There is no doubt, however, that the measurements were accurately made, and that much credit is due to him and his assistants for the success of his treatment.

Professor Gross stated that he used in preparing his bandages a solution of silicate of potassa and silicate of soda, to which he gave a preference over plaster of Paris, and a decided preference over starch, to which he was strongly opposed. He said it dried very rapidly. On the main question as to whether there was necessarily shortening in oblique fractures of the femur, he was in favour of the view that a certain amount of shortening was necessary.

It was also contended that even in health the opposite sides of the body might not be equally developed, so that a difference in the length of the bones might exist without the presence of fracture. One gentleman stated that he never yet had seen a skeleton in which the corresponding bones had been perfectly equal in length, nor one in which the difference had been less than one-sixteenth of an inch. Even the text-books are not correct on this point, and in one work on anatomy the statement in the text says the corresponding bones on opposite sides of the body are equal, while a footnote contradicts it. Reference was also made to the danger of suits for malpractice, and a case was cited in which a practitioner had narrowly escaped a suit when the difference between the length of the limbs was only one inch and a half. The limb might have been the shorter of the two before the accident. There was reason, argued another, for this unheard-of success at Bellevue Hospital in the appliances at hand, and the constant attendance and care available which country practitioners can never enjoy, and suits for malpractice are generally brought in the country. Backwoods doctors scarcely ever have proper appliances, and cannot possibly give cases constant personal care. Literature in this profession is authority in courts of law, as remarked by Dr. Pierce, of Illinois, and the later the volume the more weighty its authority. This convention is making literature which will be evidence in the courts of justice, and it is important that that fact should be known. He was startled when he heard that the day of shortening had passed, for he had always had it in his practice. He was prepared to admit the absolute accuracy of the statistics from Bellevue Hospital presented by Dr. Sayre, but he thought the measurements were taken too soon. They were taken when the patient was pronounced cured, while suits for malpractice are scarcely ever brought until after the lapse of months, and in his opinion shortening goes on after discharge, and when the limb is in use. Dr. Pierce described and advocated the use of the "book" or Bavarian splint, which is particularly adapted to fractures of the tibia or of both the tibia and fibula, in which cases it is convenient and easily applied. This splint can be made by anyone who has two pieces of flannel, a needle and thread, and some plaster of Paris, or the silicates already mentioned. The method of construction and application may be illustrated as follows:—Place two pieces of flannel (long enough to reach the desired distance, and wide enough to envelope each other) upon each other, and stitch them together longitudinally through the centre, and they will then form four leaves. With two of these envelope the limb, and fasten them together on top, the seam being underneath; this is to keep the plaster case from touching the skin. Upon the other two leaves spread the plaster, and bring them together on top, moulding them to the limb; and when the plaster becomes hard there is a plaster box the exact shape and size of the limb, which can be opened at will, the seam at the back serving as a hinge. With this splint the limb can be looked at every day, and in case of swelling or shrinkage of parts a new one can be adapted to the changed conditions. It was recommended for use in compound fractures, below the knee especially, a hole being left to allow the escape of discharges.

Dr. Sayre stated that he had been grossly misunderstood by many. He had made remarks upon statistics prepared by Dr. Van Wagner, of the Bellevue Hospital, and they were all true. Dr. Frank Hamilton, who until recently would not admit that a fracture could be reduced without a shortening, made all the measurements of these cases in the Bellevue Hospital. The surgeons of the hospital are to be credited with the honour of producing these results; but the hospital stewards—who were careful to get a correct adjustment of the bones before they are bound properly to be kept in place—deserve the credit to a great extent. In all cases of fracture it is necessary to have the proper extension and counter-extension, and they should be immediately applied. If the swelling will prevent the use of plaster of Paris, extension and counter-extension can be kept up. He deprecated the use of the patent apparatus, which is offered for sale here, and often used by country doctors. There is no necessity for any patent apparatus. The bones should be put in proper place, and kept there. He thought the Bavarian splint was very good, but there is a danger of shortening taking place while the physician is taking it off to look at the limb. He recommended that the patient be got out as soon as he can after the fracture takes place, as the exercise is beneficial. In reference to the Bavarian splint he was opposed to opening or removing it to look at the limb. When a fracture is well adjusted, leave it alone. Dr. Sayre then took up the mode of treatment he had advocated previously, and briefly repeated his theory in regard to extension and counter-extension. He claimed that there is never irritation of the muscles, when there is only normal traction. If there is only enough extension to produce a normal condition, then there is retention—*fixation*. Too much extension is abnormal, produces irritation, and is often the cause of non-union. Extension and counter-extension should be applied the instant of seeing the patient, and then—fixation. There are no circumstances where something cannot be found to effect this. Machinery is the curse of the profession, and there is scarcely a country doctor who has not in his office a lot of worthless and expensive machines called "surgical appliances." In setting a limb the assistant who holds it in position while the surgeon is applying the bandages is in the most responsible position. If there is a single continuous piece of skin (no matter how crooked or narrow) for a guide, then the limb can be put in position, be held by an assistant, and properly attended to. The speaker said that in thigh fractures he used the triple inclined plane. He disclaimed any desire to "lay down the law," and concluded by claiming that a discussion of this kind would not have the authority of a carefully written book.

The following resolution was offered, but rejected:—"Whereas, there seems to be some uncertainty in the minds of the profession in reference to their treatment of fractures of the long bones: therefore resolved—That it is the opinion of this section that it is nearly impossible to treat fractures without shortening."

On the ensuing day the agitation was renewed, and the following resolution was adopted, a large number of the gentlemen present being opposed to the theories advanced and sustained by the statistics furnished:—"Whereas, the members of the surgical section of the American Medical Association have listened with interest to the report of Professor Sayre, of New York, on the subject of fractures; and whereas statistics accompanying said report evince in the institution represented unusual results: therefore resolved—That this section, after free discussion of the report, and its reference to the Publishing Committee, would express their opinion, based upon experience, that the results in relation to shortening following fractures is better than can be looked for in general practice."

A supplementary resolution was also adopted to the following effect:—"Resolved, that this section hereby requests of Professor Sayre that as far as possible he should cause a second measurement to be made of all these cases and report the result of such measurement at the next session of this Association."

As an interesting sequel to this discussion, Dr. Sayre introduced two cases of oblique fracture of the femur treated by a surgeon of Detroit, in boys, which he claimed to have cured, one with only a very slight shortening, the other with absolutely none, and asked those interested to examine the boys. The larger of the two was ten years old; his fracture had taken place six years previously, and he it was whose cure was said to be perfect. He was taken into the jury room, undressed, and, on motion of Dr. Sayre, was measured by a committee of all who did not believe in the completeness of the cure. Nearly everyone present examined him, and a

number of measurements were taken, some finding the leg which had been broken to be the shorter, while others claimed the contrary. Among those who stated that absence of shortening was totally impossible was Dr. J. T. Hodgin, of St. Louis, who was apparently much chagrined when he reported the left leg was the *shorter*, when it turned out that the right was the one which had been broken. He, however, claimed a triumph, as he said the result only showed the accuracy of his position, "that a correct measurement was an impossibility."

Dr. Sayre was evidently delighted at this evidence in favour of his theory of the possibility of perfect cures, and not only that, but that it also went to sustain him in his statement that the younger members of the profession were the most successful men.

Dr. George M. Beard, of New York, next referred to cases of various kinds which had been successfully treated by electricity, such as goître, benign tumours, diseases of the skin, nervous affections, etc., and he summarised his conclusions as follows: First—That certain benign tumours, as goîtres, enlarged glands, and cystic, can be made to diminish or disappear under electrolysis. Second—That fatty tumours and enlarged lymphatic glands are usually very difficult to diminish by electrolysis, and sometimes they will not diminish at all. Third—That malignant tumours will not usually diminish, and rarely, if ever, entirely disappear under the electrolysis; but the pains connected with them can be treated most successfully by electrolysis. Fourth—That malignant tumours, when sufficiently accessible and not too far advanced, may be treated by electrolysing the base, or "working up the base," as he terms it; and this method promises more permanent results than have been obtained by the usual treatment. Fifth—That certain diseases of the skin—herpes, eczema, and prurigo—may be treated by different methods of using electricity with the highest success. Sixth—That diseases of the skin may be treated by local and central methods of using electricity, but some of the most brilliant results in the treatment of chronic eczema have been obtained by galvanising the nerve-centres, in the method of central galvanisation, without making any application to the diseased parts. The results of this method of treatment seem to show pretty conclusively that chronic eczema is, to a considerable extent, dependent on the central nervous system.

The only remaining subject which occupied the attention of the Surgical Section was the address delivered before the whole Association by Professor Gross, "On Syphilis." The views advanced by this distinguished authority, whose dignity, ability, and industry have won for him the affectionate regard of the whole profession, were boldly and manfully expressed. He argued in favour of the pathological relationship between scrofula, phthisis, and syphilis; gave an historical sketch of the latter disease, placing it chronologically far back into Scriptural periods; took decided grounds in favour of the unity of the syphilitic poison, and in regard to the expediency of protecting the community from the spread of syphilis by such legal enactments in regard to prostitution as would, by the application of systematic surveillance, control its evil effects, etc. The address, when brought up in the Surgical Section, elicited quite an animated discussion, in which several prominent American surgeons took part; but no decided action was taken in the matter, nor were any views expressed with regard to the pathology of the various diseases, although the sentiments of those present seemed somewhat at variance with those upheld by the Chairman. It is probable that the subject will come up again for renewed agitation at the next annual meeting, inasmuch as a committee was appointed in accordance with the following resolution:—"Resolved—That in furtherance of the views expressed by Dr. Gross in his valuable address, touching a proper legislation to prevent the spread of syphilis, a committee, composed of Dr. Gross, Dr. N. S. Davis, Dr. J. M. Toner, Dr. Marion Sims, and Dr. John Morris, be appointed to report at the next meeting the most feasible plan for securing such legislation."

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The Government of India (says the *Bombay Gazette*) has determined to perpetuate the memory of Dr. Stoliczka, the distinguished naturalist, who met his death on the return journey from Yarkand, by erecting, at the public expense, a tomb over his remains at Leh, and a tablet in the New Indian Museum at Calcutta.

## GENERAL CORRESPONDENCE.

### THE HOSPITAL SUNDAY FUND.

Letter from Mr. H. K. Evans.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your article last week on the Hospital Sunday Fund you state that "you suppose the reason why no grant was made" to several hospitals, amongst which the Hospital for Diseases of the Throat is included, was "that the balance-sheet of receipts and expenditure during the past three years was not forthcoming." I beg to inform you that this Hospital supplied all the information required by the Committee of Distribution. I have applied to the Secretary of the Hospital Sunday Fund for an explanation of the non-award of a grant to this Hospital, but at present he has been "unable to charge his memory with *an* official reason" why this Hospital was omitted. I may add that this Hospital contains eighteen beds, and 168 in-patients were admitted last year. As your observations are calculated to produce a very injurious impression concerning the financial management of this Hospital, I shall be obliged by your giving the same prominence to this note as was afforded to your article. I am, &c.,

H. K. Evans, Secretary.

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### BIRTH OF TRIPLETS AFTER OVARIOTOMY.

Letter from Mr. Spencer Wells.

[To the Editor of the Medical Times and Gazette.]

Sir,—The enclosed note, just received from Mr. Balding, of Royston, will be read with interest.

I am, &c., T. Spencer Wells.

Upper Grosvenor-street, August 7.

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Royston, August 6.

Dear Sir,—On Saturday last I was called to attend a patient in this neighbourhood named F., in her confinement. About six years ago she had ovariotomy performed by you at the Samaritan Hospital, and has since been twice pregnant previous to the present occasion, both of which children are, I believe, alive. On the present occasion she gave birth to three male children, all born alive, but they died shortly after, the pregnancy only being five to six months. There were three distinct placentæ. Not being aware of a similar case, I thought the fact might be interesting to you.

I am, &c., Mortimer Balding.

T. Spencer Wells, Esq.

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### MONTREUX AS A HEALTH RESORT.

Letter from Dr. Arthur E. Leeson.

[To the Editor of the Medical Times and Gazette.]

Sir,—There are few physicians in England who will not be called upon, a month or two hence, to choose winter quarters for one or more of their patients. Now, as year after year a greater number of invalids come to winter in Montreux, often under very erroneous impressions with regard to its climate, and as the profession naturally look to those who practise in health resorts for correct data with regard to these places, I propose to lay before your readers a few facts concerning this neighbourhood, and what it has to offer to invalids.

The district to which these observations refer, comprehends not only Montreux but the villages of Veytaux, Territet, and Clarens, and forms the eastern extremity of the north shore of the Lake of Geneva. It is perfectly sheltered from north and east winds by the southern spurs of the Jaman range, mountains from 3000 to 6000 feet high, and from the south by the still loftier Alps of Savoy, and the Valais. To the west it is open. The prospect, extending throughout the whole breadth of the lake, is bounded by the Jura mountains, fifty miles distant. These latter, though too distant to be any great barrier to westerly winds, have, however, the effect of depriving these of a great deal of their usual moisture; and, as these winds prevail extensively during the winter months, we have here an explanation of what is the peculiar advantage of this neighbourhood—a small winter rainfall. So far, there-

fore, as shelter is concerned, Montreux leaves nothing to be desired.

In respect of temperature, we are not quite so favoured. The winter comes late, it is true, but it is a real one while it lasts. Autumn lingers long with us, the mean temperature (day) of November corresponding pretty nearly to that of October in the South of England. The nights, however, as is usual in Alpine countries, are cold, and night-frosts, though rare, are not unknown at the end of the month. In December the thermometer sinks rapidly, and this chiefly on account of the fact that the sun sets at this time of the year behind a very high mountain, and its rays are intercepted an hour to an hour and a half before the theoretical sunset. Winter may therefore be said to commence early in December, and to end late in February. March, though often wet, is warm, the mean day temperature being about 50°; and although snow sometimes still falls in the beginning of the month, it melts immediately. The nights are still cold, which explains the fact that vegetation with us is little, if at all, earlier than in England. What, then, besides its shortness, are the main features of the Montreux winter?

1. It is dry. Neglecting slight falls not sufficient to be recorded by the rain-gauge, snow or rain falls on nine to sixteen days. After rain the ground soon drys, the soil being chiefly gravel. Snow, however, whenever it falls, is likely to remain for some days unless the fall is followed by brilliant sunshine or rain.

2. Although the mean temperature of mid-winter (in January it is 34°) is low, the day temperature is much higher, and on sunny days, which are about a third of the whole, may reach a very high point indeed. Owing to the clearness of the atmosphere, the sun acts with great power, and the effect is intensified by the reflection of its rays from the surface of the lake. The air is generally perfectly still. These are the days which I suspect have made the fortune of the place, and earned for it the title of the "Nice Vaudois."

To recapitulate. We have an autumn prolonged to within a few weeks of Christmas; a spring commencing late in February or in the beginning of March; and a short, dry, and moderately cold winter, with absolute shelter from wind, and a fair allowance of sunny days.

To what patients, then, may Montreux be recommended as a winter residence—meaning the English winter: say from November 1 to May 1?

1. To persons suffering from debility caused by prolonged residence in India or other hot climates, and especially in the case of delicate children reared in those countries, and whom it is not considered prudent to expose to the wind and rain of an English winter with the alternative of perpetual confinement within doors.

2. In purely catarrhal affections of larynx, trachea, and bronchial tubes. To this class of patients the place is pre-eminently suited.

3. In chronic rheumatism and that form of neuralgia allied to it.

4. Persons who have lately recovered from attacks of bronchitis, pneumonia, or pleurisy, and whom it may be thought desirable to accustom to a moderate degree of cold. It is clear that a patient who recovers health and strength in a climate almost as cold and only drier, and more sheltered than any part of England, is in a better condition to return home and face his native air than one who has accustomed his lungs to the warm air of the South of France. Of course I suppose that there is no evidence of tubercular deposit or casciform infiltration.

5. I have left for the last a most important class—consumptives. I believe these patients may spend here with advantage the interval between the commencement of cold in England and the cessation of the hot season in Hyères, Cannes, and Nice. In Hyères last winter the mosquitoes were troublesome till the second week in November. Again, the places above mentioned become inconveniently warm before it is quite prudent to return to England. Here is a halting-place where they can spend the interval with advantage, and I think with *great* advantage. But in mid-winter this is not a place for consumption in any stage. The air is generally too cold to be breathed by phthisical lungs, and to permit sitting out of doors, while, with the exception of one high-road, all the walks are more or less up and down hill, and carriages are expensive. But as a *succursale* to the South of France Montreux can be visited by consumptives with much benefit at the seasons above mentioned. I have this spring attended a considerable number of persons who had wintered on the Mediterranean, some of whom I had myself sent away from here in November last. In most of them the good effect of the change was very remarkable.

Such, sir, is the opinion I have formed of Montreux as a health-resort. It is the result of six winters passed in the neighbourhood, during four of which I have been in active practice.

I am, &c.,

Arthur E. Leeson, M.A., M.D. Dub.

Vevey, Switzerland, August 14.

## REPORTS OF SOCIETIES.

### OBSTETRICAL SOCIETY OF LONDON.

Wednesday, July 1.

E. J. Tilt, M.D., President, in the Chair.

Dr. Hayes stated that though the report on Dr. Daly's specimen of Medullary Cancer of the Cervix Uteri, exhibited at last meeting, was not quite ready, there was no doubt about the case being one of malignant degeneration.

Dr. Galton exhibited an Instrument for Relief of Anteflexion, consisting of a curved metal stem supporting a box-wood crutch, which passes up into the anterior cul-de-sac of the vagina in front of the cervix uteri, being kept in position by a spring resting externally on the pubis, the two being connected by a swivel joint, which allows of a free movement of rotation of the inner limb. The case in which it had been successfully employed was a very aggravated one, the lady being confined to her couch, and morphia injections hypodermically being resorted to twice daily during the menopause, and thrice daily during the periods, without affording more than temporary relief. The instrument was worn continuously for three years, and succeeded perfectly in relieving the patient. In another case of anteflexion complicated by fibroid of the fundus, the employment of the instrument was only attended by temporary relief; and in another case its use was not persevered in. Dr. Aveling had called attention to a similar form of instrument in 1869. Dr. Galton thought the case worth recording, as showing that anteflexion could be successfully treated without resorting to intra-uterine stems, which Dr. Marion Sims stated had been entirely discontinued in America, but were still recommended by many practitioners in England.

Dr. Routh could not understand how the instrument kept in position.

Dr. Aveling thought there would be a difficulty in getting the spring to act properly.

Dr. J. C. Hayes exhibited the macerated Os Innominatum of the case of malignant disease shown at a previous meeting.

Dr. Hayes also exhibited the Uterus and Appendages of a patient who had died under Dr. George Johnson's care from heart disease, which was probably congenital. She was twenty-eight years of age, single, and had complained of no uterine symptoms. The catamenia were absent the last four months of life. Both ovaries were found, post-mortem, prolapsed—the uterus occupying its normal position. They were uniformly enlarged, the right one containing a cyst about the size of a pea, the left one having three similar cysts, which appeared to be aborted Graafian vesicles. Attached to the right broad ligament between the fimbriated end of the Fallopian tube and the outer margin of the ovary was a fluctuating sessile cyst, of a pear-shaped form, about the size of a plover's egg, which had probably originated in one of the tubules of the organ of Rosenmuller.

Dr. Hayes also exhibited a Fatty Placenta taken from a patient who furnished a very instructive history. She was thirty-seven years of age; married sixteen years. There were no grounds for any suspicion of syphilis. She bore three living and perfectly healthy children. During her fourth pregnancy she received a severe fright, and shortly afterwards was delivered prematurely of an eight months' still-born fœtus. Her health then began to fail, and in succession followed twelve still-born children, nearly all of which had reached at least seven months' maturity. During the last four or five pregnancies she had suffered from serious and frequent hæmorrhages, dating from the third month of gestation, and occurring sometimes every fortnight till

labour supervened; they were quite sudden, and without any recognisable cause, and came in gushes, not unfrequently during the night, unattended by pains. When first seen, in February 7, 1874, she was four months advanced in pregnancy, and had had two serious losses of blood. She was very anæmic and extremely debilitated. Rest was enjoined, and ℥xv. of liq. ferri perchl. prescribed thrice daily. Her colour and strength rapidly came back, and there was no return of the hæmorrhage. Fœtal movements were distinctly felt until within six days of labour, which happened at full term, and the fœtus, though small, bore all the appearances of maturity, and seemed to have been dead about a week. Since the birth of her last living child, gestation had never continued so long. The placenta was small, weighing only twelve and a half ounces; it had a pale yellowish appearance, contained little blood, and nodules of fat, characteristic to the naked eye, were studded over the maternal surface, especially along its margin. The fatty change was most advanced towards this surface, a large portion of the decidua being merely an aggregation of oil globules. The adjoining fœtal villi, with the investing chorion, were seriously affected, but those close upon the fœtal surface were simply granular in appearance.

Dr. Hayes referred to Dr. Barnes' investigations of this disease, published in the *Medico-Chirurgical Transactions*. He considered the disease in this case to have originated in the maternal portion of the placenta, this view being borne out by the weakly condition of the patient and microscopical examination. No doubt the previous premature births and the hæmorrhages had been due to the same condition of placenta. He could not regard the disease as originating in placentitis; this was contrary to all analogy. It was a degenerative change, occurring under the same conditions which induced fatty heart, fatty kidneys, and fatty arteries in the brain. Should the patient become again pregnant, the propriety of inducing artificially premature labour would be considered.

The President suggested that Dr. Aveling should examine the case of prolapsed ovaries with Dr. Hayes.

Dr. Heywood Smith thought the cyst in the ovary was sufficient to account for the prolapsus.

Dr. Hayes thought it could not be explained in this manner.

Dr. Barnes, in reference to the case of fatty placenta, thought that the case proved that the disease may originate during the life of the child. This notion had been controverted. It was said to take place after the death of the child. But it was hardly possible that all this mischief could have occurred in the short time after the death of the child; it was much more likely to have preceded this event, and, in fact, caused the premature destruction of the child. As regards the change commencing in the maternal or fœtal portion of the placenta, it affected mainly the villi of the chorion. He had not stated that the change arose from placentitis. He likened it to fatty degeneration of other organs. The case was full of interest, and had important pathological bearings.

Dr. Rogers exhibited a specimen of Pelvic Hæmatocele, removed post-mortem from a patient who had been married nine years, and had had one child seven years previously. Never pregnant since, nor had any miscarriages. For twelve months past she had felt at times pain in the lower abdomen, especially at the catamenial epochs, when the losses had been very great. She had noticed a tumour in the abdomen for seven weeks before admission, though she believes it might have been there much longer. On examination it was thought to be a fibroid of the uterus; it was mobile, filling up the left side of the pelvis. A sponge-tent was inserted in the cervix, and subsequently a sea-tangle tent. The posterior wall was felt to be hard and apparently solid. The uterine sound passed three inches and a half. Four of his colleagues examined the patient, and, together with Dr. Greenhalgh, believed it to be a fibroid of the posterior wall of the uterus, which might be treated by enucleation. The pulse went up to 125, the temperature to 104·5° Fahr., and sickness and increased pain ensued. These symptoms subsided under the influence of salines and opium. On June 27 she suddenly complained of faintness and icy coldness; hot water was applied to the abdomen, and stimulants administered, but she died, apparently from syncope, shortly afterwards. On making a post-mortem examination, on opening the abdomen, a large central tumour, resembling a pregnant uterus at the fifth month, was seen; it was mobile. There was a quantity of fluid and some clotted blood in the pelvic cavity. On incising the tumour it was found to be filled with a hard, firm, black mass, which was turned out and examined; it was structureless, and whitish in parts. The uterus measured five inches in length and three broad. Behind, above, and around this, the cyst had formed and lengthened out towards the right ovary, being about the size of a child's head. The right Fallopian tube was closed, and on the external surface seemed to pass into the right ovary, which contained a hard stellated mass. The cyst appeared lined by membrane composed of two layers. On examining the stellated mass, nothing but blood corpuscles and fibrin could be detected.

The President inquired when the hæmatocele originated.

Dr. Routh stated that when he saw the body on the post-mortem table the breasts presented all the signs of pregnancy, and on opening the abdomen it still looked as if she were pregnant, and even now it was a question whether it was not a case of extra-uterine fœtation. If it were a hæmatocele, there must have been a gradual oozing of blood for six or seven weeks, and a sudden increase on the day of her death. The lining membrane of the uterus did not present the appearances of a decidual membrane.

Dr. Barnes related that he had seen two cases of hæmatocele during the last month—in one, ending fatally, the cyst was opened during life per vaginam, and blood removed; the cyst was curiously mobile. In the other case, in hospital, he had no intention of opening the cyst. He considered formerly that the danger of the cyst rupturing into the peritoneum was small, but now he thinks it more serious. If the hæmorrhage goes on and the cyst increases in size, puncturing should be resorted to. In another case where the hæmatocele was clearly mapped out, spontaneous opening into the roof of the vagina occurred, and the cyst gradually contracted and closed, the hæmatocele disappearing.

Dr. Protheroe Smith asked Dr. Rogers if he had from the history of the case, or from the ordinary symptoms which indicate the formation of hæmatocele, suspected the nature of the malady before death. He had now a similar case in the Hospital for Women, which was admitted with a large swelling occupying the left sacro-iliac fossa, and extending beyond the mesian line to the right, having the semi-elastic, doughy feeling which indicates hæmatocele. Active symptoms of great constitutional distress having supervened, with a high temperature and quick pulse, he used the aspirator per rectum, and the escape of broken-down coagula of blood declared the diagnosis, and was followed by amelioration of symptoms and a continued discharge of fetid black matter.

The President remarked that, as there seemed to be some obscurity about the case, he would refer it to Dr. Rogers and Dr. Heywood Smith.

Dr. Protheroe Smith exhibited some newly invented Serrated Scissors manufactured by Messrs. Meyer and Meltzer, which, by transfixing and cutting clean through any tissue, insured a smooth and definite incision to any previously determined extent. One pair was straight, having one blade probe-pointed, for dividing the cervix uteri; another was curved to facilitate the removal of condylomatous growths or tonsils. Bony structures could also be severed by them. He had recently employed them for extending the abdominal incision in a case of ovariotomy, making smooth and even edges. Dr. Richardson's toothed scissors were efficient for perforating and tearing, as in mastication, but did not act like Dr. Protheroe Smith's.

Dr. Barnes referred to Küchenmeister's metrotome scissors, one blade of which is provided with a small recurved hook, as being similar in principle. Dr. Richardson's scissors answered well, but did not give additional security against bleeding.

Dr. Aveling thought that in cases of hysterotomy there was an objection to the employment of scissors, as they produce disfigurement and distortion of the parts subsequently.

Dr. Chambers related the particulars of a case of Inversio Uteri occurring in the practice of a midwife, where the inversion was complete. The patient, aged twenty-seven, was safely delivered—this being her second labour. Half an hour afterwards hæmorrhage commenced, the placenta not being expelled; traction was made on the cord; there was severe abdominal contraction. A violent shriek of pain, and a round ovoid body protruded from the vulva; the hæmorrhage was very severe. Dr. Chambers was sent for, but, not being at home, his nephew went. On his arrival he found the patient cold, ensanguine, gasping, moribund. The placenta was removed, and an attempt made to return the uterus, but unsuccessfully. On making a post-mortem examination, twenty-four hours after,

rigor mortis was well marked, the body was well nourished, and the uterus was found to be partially re-inverted, and gave the idea that had the patient been seen earlier, before she had lost so much blood, and the efforts at retaining the uterus been persevered in, complete reduction would have taken place. The patient was seen too late to allow of transfusion being attempted.

Dr. Barnes related a case of Retention of Urine from a Retroflexed Gravid Uterus. The patient, aged thirty-two, had borne four children, the last over three years since. She had been "regular" till November, and until February believed herself pregnant, when, whilst hanging clothes on the line, a pig bit her foot, and frightened her very much. This was followed by pelvic pain and a vaginal discharge. Rest was enjoined, and she went on well for a week. She was then seized with sudden severe abdominal pain, the abdomen began to swell, and she lost health rapidly. Seven weeks afterwards the abdomen measured thirty-nine inches at the umbilicus. The case was supposed to be ovarian; a tense, elastic tumour, giving a thrill of fluctuation, being detected. On passing a catheter, twelve pints of urine, charged with blood, were drawn off, but it had little or no uriniferous smell. After this, the abdominal tumour decreased in size. On further examination a retroflexed gravid uterus was detected. The patient being much exhausted, she was left until the next day, when Dr. Barnes saw her. The pulse rose to 144, and there was excessive tenderness over the abdomen. The uterine sound passed in three inches upwards and forwards, and the case was looked upon as hæmatocele; but on passing the hand into the vagina a fœtus of four or five months' maturity was removed. The uterus was found to be fixed in the pelvis. The patient being very ensanguine, transfusion with lamb's blood to ten ounces was resorted to. There was a faint attempt at restoration, with much excitement, and the patient died one hour afterwards. On making a post-mortem, an elastic tumour was detected in the abdomen, the bladder being filled with two pounds by weight of black clotted blood. At the fundus of the bladder was a hardened, infiltrated mass, from which the hæmorrhage had taken place. The transverse muscular fibres were very well seen. The uterus was found to be retroflexed.

Dr. Godson referred to a case of retroflexion of the gravid uterus with cystitis, where the whole of the lining membrane of the bladder came away, exposing the muscular fibres. The patient went to her full time, was safely delivered, and is still living, though she cannot hold her water for more than a few minutes.

Dr. Barnes stated that he considered the patient died from retroversion of the pregnant uterus; though there were symptoms of peritonitis, none was detected post-mortem. She died from exhaustion and uræmia.

The President requested Dr. Chambers and Dr. Hayes to examine the specimen further, and report upon it.

Dr. Wynn Williams related the particulars of a case of Intra-Uterine Tumour which was removed, with subsequent pregnancy, the patient being delivered by turning, and recovering after post-partum hæmorrhage. The patient, aged thirty-four, had had two children, the last one more than three years previously. In a subsequent miscarriage she nearly died from hæmorrhage. When first seen by Dr. Williams, uterine hæmorrhage had been going on for a twelvemonth, and the abdomen was found to be as much distended as a woman's would be at the full term of pregnancy. A large intra-uterine fibroid or polypoid growth was removed by means of the écraseur in several successive operations. She made an excellent recovery. Eleven months afterwards she aborted at the third month, and had severe hæmorrhage. She again became pregnant, and on labour setting in, the uterus was found to be high up above the pelvic brim, the head presenting. After waiting several hours chloroform was administered, and turning accomplished after much difficulty, a dead child weighing ten pounds being ultimately extracted. Hæmorrhage supervened three hours after delivery; a piece of sponge saturated with equal parts of liq. ferri perchl. and water was passed into the uterus, and the bleeding ceased forthwith. The sponge was withdrawn on the following day.

The President remarked that the case was interesting as showing the occurrence of pregnancy after the removal of a fibroid, weighing eighteen ounces, and the influence of the iron in restraining the hæmorrhage.

Dr. Aveling thought that the method of using the iron, leaving the sponge in utero, was a questionable proceeding; the contraction of the uterus rendered the withdrawal of the sponge difficult, and if the string attached to it should break, it would be very awkward. He considered it a bad practice.

Dr. Heywood Smith thought that in operating for fibroids of the uterus it should be done rapidly, as Dr. Marion Sims suggested, in order to avoid septicæmia.

Dr. Rogers thought the whole of the mass had been taken away at two sittings, one in the evening and one next morning.

Dr. Routh remarked that when matters were retained in utero we did not get septicæmia; it was only when they were partially expelled in the vagina. The application of plugs dipped in tincture of iodine to the surface, renewed every three or four hours, would succeed where carbolic acid failed in averting septicæmia.

The President alluded to some cases where a practitioner in Cuba injected a solution of iodine and iodide of potassium into the uterus immediately after parturition, with a view to prevent puerperal mischief.

Dr. Cleveland doubted the propriety of administering morphia so soon after delivery, especially if the uterus had not properly contracted. He would have preferred to watch the patient.

Dr. Williams, in reply to Dr. Aveling, stated that he had never experienced any difficulty in removing the sponge. The contractions of the uterus forced the sponge out into the vagina. He considered the success of his method mainly attributable to it. In early abortion and in non-pregnant uteri he preferred swabbing out the cavity of the uterus with the iron. In reply to Dr. Routh, Dr. Williams stated that he himself had introduced the employment of iodine as an antiseptic; even tainted meat, washed with a solution of ʒ iij. of tincture of iodine to ℥viij. of water, became perfectly wholesome.

Dr. W. Schnegierief, Physician to the Moscow Hospital, read a paper on Vaginismus. After alluding to the conflicting statements of Drs. Marion Sims and Scanzoni, he related the history of several cases that had been under his own care, showing that there were two different forms of the disorder—the one being regarded as inflammatory, and the other as nervous or hyperæsthetic.

Dr. Edis thought, after carefully perusing the paper, that the deductions drawn from the first case cited scarcely carried conviction. She was a *virgo intacta*, and was only seen once. The second case seemed due to vaginitis and granular cervix. The paper was a most instructive one, and would form a valuable addition to the *Transactions*, the cases being given in a clear and graphic manner, and the observations on their pathology and treatment well worthy of perusal.

The President remarked that he had only met with one case where no tangible cause existed. She was very nervous, and subject to epileptic fits. In all other cases some definite cause for it had been discovered, such as ulceration, etc. He considered Dr. Marion Sims's operation very rarely necessary; forcible dilatation, under chloroform, by means of the two thumbs placed back to back, being generally sufficient to overcome the obstacle.

Dr. John Williams remarked that in the first case alluded to by Dr. Edis there were three distinct painful points which, when touched, caused spasm of the urethra. He thought the paper one of great interest.

## OBITUARY.

### ROBERT EDMOND GRANT, M.D., F.R.S., etc.

At the last *soirée* at the Royal College of Physicians might be observed in his accustomed seat in a retired corner of the library a venerable and striking-looking octogenarian. The old, the middle-aged, and the young, with a very rare exception, passed him by, most of them wondering who he could possibly be. I knew him of old in University College, and spoke to him. There was no particular alteration to be observed in his physical condition, but he was evidently not so quick in recognising me as he had done on so many occasions before. "Who is that," said a friend, "I saw you just speaking to?" "That," I said, "is the English 'Cuvier,' Robert Grant." "What Grant?" he asked. I had to explain that it was the great Professor of Comparative Anatomy for forty years past. It seems strange that a man who had occupied for so considerable a period an important space in the profession, and who had done so much as a great anatomist, should be personally so little

known. Robert E. Grant was the seventh son of the late Mr. Alexander Grant, writer to the Signet. He was born at Edinburgh on November 11, 1793, and was educated at the high school of that town and the University. The favourite studies of his juvenile years were Greek and geometry, the former of which proved of great utility in his subsequent pursuits. He obtained his diploma of the Royal College of Surgeons in 1814, and his M.D. in the University of Edinburgh the same year. After visiting various foreign medical schools he returned to Edinburgh, and commenced practice. In 1827, on the institution of University College, London, Dr. Grant accepted the chair of Comparative Anatomy and Zoology. He was the last living of a long list of professors so appointed. During the time he was at University College he gave courses of lectures on "Comparative Anatomy," and contributed many papers to the *Transactions of the Zoological Society*. He was a member and fellow of a large number of scientific societies at home and abroad. Dr. Grant was somewhat above the middle height, strongly and firmly built, and was remarkable for the long and firm strides that he took when walking. He had a head denoting great intellectual power, and a striking, manly set of features. In manner he was most gentle and courteous, and under ordinary circumstances it might be supposed he wanted energy and determination. But there were occasions when Prof. Grant could and did speak out firmly, decisively, and to the purpose. He abominated shams, and was a staunch reformer, though not a very prominent one, from the first. Dr. Grant's views with respect to many controversial points were in advance of his time, and in his works may be found foreshadowings of theories which have lately attracted much attention. His anticipation of "Darwinism" was specially mentioned by Professor Tyndall at Belfast, I believe. It is, perhaps, worthy of notice in so remarkable a man, that he was always, whether in the house or out of it, in full dress, even to the white necktie and the low tied shoes. J. F. C.

### THOMAS BALLARD, M.D., M.R.C.S., ETC.

THIS well-known surgeon in general practice died on Tuesday last, at the comparatively early age of fifty-six. He was educated at Guy's Hospital. He was a member of several of the metropolitan medical societies, and author of "A New and Rational Explanation of the Diseases Peculiar to Infants and Mothers, with Obvious Suggestions for their Prevention and Cure," "Convulsive Diseases of Infants," "On Apoplexy, and the Value of the Abstraction of Blood in its Treatment."

## MEDICAL NEWS.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CADDY, HENRY, M.R.C.S.E., L.S.A.—Junior House-Surgeon to the Royal Southern Hospital, Liverpool.

PIGGOTT, EDWARD ALFRED, L.R.C.P., L.R.C.S., L.M., L.S.A.—Medical Officer for District No. 6 of Downham Union.

PRIESTLEY, CLEMENT C.—House-Surgeon and Secretary to the West Norfolk and Lynn Hospital, Lynn, *vice* Mr. C. B. Plowright, resigned.

### MILITARY APPOINTMENTS.

WAR OFFICE—MEDICAL DEPARTMENT.—The Christian name of Surgeon-General Fraser, M.D., C.B., who was appointed Honorary Physician to her Majesty in the *Gazette* of the 11th inst., is John and not James, as therein stated. To be Surgeons-Major: Surgeon Sydney Keyworth Ray, *vice* Henry Martyn Fraser, M.D., retired upon half-pay; Surgeon Thomas William Wright. To be Surgeons: Lloyd Brereton Ward, gent.; Thomas Joseph Gallwey, M.D.; William Birkmyre Miller, M.B.; George Blake Hickson, gent.; Benjamin Richard Iagoe, M.D.; John Prendergast, gent.; William Simson Pratt, M.B.; Carew Charles Howard Smyth, M.D.; James Adolphus Smith, gent.; John Martin, gent.: Frederick Simon Young, M.B.; John Joseph Greene, M.B.; Nathaniel M'Creery, gent.; Joseph Andrew Gormley, M.D.; John Edward Vaughan Foss, M.D.; Charles Palmerston Turner, gent.

### BIRTHS.

CRAWFORD.—On July 15, at Kussowlie, Punjaub, India, the wife of Deputy Surgeon-General T. Crawford, M.D., Army Medical Department, of a son.

EVANS.—On August 23, at 1, College-terrace, Belsize-park, N.W., the wife of William Evans, M.D., late of Calcutta, of a daughter.

GRELLET.—On August 30, at Hitchin, Herts, the wife of Charles John Grellet, M.R.C.S. Eng., L.S.A., of a son.

IRVINE.—On August 26, at 3, Mansfield-street, Cavendish-square, W., the wife of J. Pearson Irvine, M.D., of a daughter.

LONG.—On August 25, at Wells-next-the-Sea, Norfolk, the wife of Frederick Long, L.R.C.P. Lond., M.R.C.S. Eng., of a daughter.

MADGE.—On August 26, at 4, Upper Wimpole-street, Cavendish-square, the wife of H. M. Madge, M.D., of a son.

WADD.—On August 25, at Richmond, Surrey, the wife of F. J. Wadd, M.B., M.R.C.S. Eng., of a daughter.

### MARRIAGES.

ALFORD—SMART.—On August 26, at All Saints' Church, Preston, Gloucestershire, William Alford, Esq., solicitor, son of Stephen S. Alford, F.R.C.S., Haverstock-hill, London, to Mary Ellen Smart, of Northcote, Cirencester.

BLAND—PARKINSON.—On August 27, at St. Mary's, Islington, George Bland, L.R.C.P., M.R.C.S., of Park-green, Macclesfield, to Eliza Jane, fourth daughter of S. Parkinson, Esq., of Canonbury, N., Assistant Paymaster-General for Chancery Business.

DORIN—ATKINSON.—On August 27, at All Saints' Church, Notting-hill, Arthur Frederic Lock Dorin, M.R.C.S. Eng., L.S.A., of Clapham, to Eva Catherine, daughter of the late Captain George Francklin Atkinson, Bengal Engineers.

ESSELL—WATSON.—On August 26, at St. Philip's Church, Kensington, William Guy, son of George Essell, Esq., of Rochester, to Eliza Louisa, third daughter of the late George Henry Watson, M.R.C.S., of Charterhouse-square, London.

GALABIN—BAILY.—On August 27, at Swindon, Alfred Lewis Galabin, M.D., Fellow of Trinity College, Cambridge, Assistant Obstetric Physician to Guy's Hospital, and Assistant-Physician to the Hospital for Sick Children, to Harriet Mignan, eldest daughter of the Rev. H. G. Baily, Vicar of Swindon.

HANNAH—READE.—On August 29, at St. Mary's, Apsley, Herts, J. B. Hannah, M.D., 63rd Regiment, to Emily, elder daughter of the Rev. C. Darby Reade, of 83, Holland-road, Kensington, late Rector of Stow Bedon, Norfolk.

SIMON—ST. LEGER.—On August 6, at the Cathedral of St. Jago de la Vega, Spanish Town, Jamaica, Maximilian F. Simon, L.R.C.P. Lond., M.R.C.S. Eng., Government Medical Service, Lucea, Jamaica, to Cornelia G. St. Leger, of Boulogne-sur-Mer, France.

TERRY—MOXON.—On August 29, at Brigg, Francis Christopher Birbeck Terry, M.A. Cantab., of Cardiff, and Thornton Rust, Yorkshire, to Lucy Caroline, fourth daughter of J. B. Moxon, Esq., M.R.C.S.

THORNTON—BAKER.—On August 29, at St. Peter's Church, Wickham-road, New-cross, S.E., Philip Thornton, M.R.C.S., of Old Charlton, S.E., to Emily Mary, younger daughter of Thomas Palmer Baker, C.B., R.N., of Wickham-park-terrace, New-cross.

TOSSWILL—DYMOND.—On August 27, at Widecombe-in-the-Moor, Devon, Louis H. Tosswill, M.B., of Exeter, to Caroline Amee, eldest child of Robert Dymond, F.S.A., of Exeter, and of Blackslade, Widecombe.

### DEATHS.

BALLARD, THOMAS, M.D., M.R.C.S. Eng., L.S.A., at 10, Southwick-place, Hyde-park, on September 1, aged 56.

CLARKE, CATHERINE, widow of Dr. Patrick Dillon Clarke, R.N., and daughter of the late Major Charles Smyth, 28th Foot, of Newgarden, co. Galway, at 2, Devonport-street, Hyde-park-square, the residence of her son-in-law, on August 27.

CONOLLY, MICHAEL ALFRED, M.R.C.S. Eng., at 62, High-street, Camden Town, of congestion of the lungs, on August 25, aged 43.

HAWKINS, JAMES, M.R.C.S. Eng., formerly Assistant-Surgeon on the Staff, Head-quarters, Cavalry, Waterloo, on August 27, aged 80.

HUTCHINS, HENRY AUBREY, only and beloved son of Henry Hutchins, F.R.C.S., of St. Margaret's Bank, Rochester, after years of suffering, on August 29, aged 21.

WOOD, ADELAIDE MARY, youngest daughter of Andrew Wood, M.D., at 9, Darnaway-street, Edinburgh, suddenly, on August 25.

### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BOROUGH OF STOCKPORT.—Medical Officer of Health and Public Analyst. Applications, with testimonials, to Walter Hyde, Esq., Town Clerk, Stockport, on or before September 14.

BRADFORD EYE AND EAR HOSPITAL.—Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before September 8.

BRISTOL GENERAL HOSPITAL.—Physicians' Assistant. Candidates must possess a registered medical qualification. Applications, with testimonials, to the Secretary, on or before September 24.

GLAMORGAN COUNTY ASYLUM, BRIDGEND.—Assistant Medical Officer. Candidates must be fully qualified. Applications, with testimonials, to the Medical Superintendent.

GLOUCESTER COUNTY PRISON.—Surgeon. Candidates must be duly qualified. Applications, with testimonials, to George Riddiford, Esq., Clerk of the Peace, Shire Hall, Gloucester, on or before September 15.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Physician; also a Surgeon. Applications, with testimonials, to the Secretary, on or before September 15.

KINGTON UNION.—Medical Officer for the Eardsley District. Applications, with testimonials, to the Clerk of the Union, on or before September 18.

LANGPORT UNION.—Medical Officer for District No. 1 A. Applications, with testimonials, to Mr. J. F. H. Warren, Clerk to the Union, on or before September 22.

LUNESDALE UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. Robert Stephenson, Clerk, on or before September 8.

NEWCASTLE-UPON-TYNE INFIRMARY.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Sub-Committee, on or before September 15.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, ST. MARYLEBONE-ROAD.—Resident Medical Officer. Applications, with testimonials, to the Secretary, on or before September 7.

SOUTHPORT CONVALESCENT HOSPITAL.—Resident Medical Officer and Superintendent. Candidates must be qualified. Applications, with testimonials, to the Chairman of the Hospital, on or before September 21.

SUNDERLAND AND BISHOPWEARMOUTH INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Candidates must possess both a medical and surgical qualification. Applications, with testimonials, to the Secretary, on or before September 24.

THREE COUNTIES PAUPER LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be duly qualified. Applications, with testimonials, to Mr. F. G. Butler, Clerk to the Committee of Visitors, St. Neots, Hunts, on or before September 21.

YORK LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Bootham, York, on or before September 19.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Easingwold Union.*—Mr. William Teasdale has resigned the Stillington District; area 20,892; population 2846; salary £42 per annum.

*Kington Union.*—Mr. Henry Horton has resigned the Eardisley district; area 5860; population 1001; salary £20 per annum.

*Narberth Union.*—Mr. George Richards has resigned the Second District; area 6161; salary £35 per annum.

### APPOINTMENTS.

*Hoxne Union.*—Henry H. Dearsly, M.R.C.S., L.S.A., to the Hoxne District.

*Newcastle-under-Lyme Union.*—Edward Turner Thompson, L.R.C.S. Ire., L.K.Q.C.P. Ire., to the Whitmore District.

*Pontefract Union.*—Walter Samuel Simpson, L.R.C.S.E., to the First District.

*St. Mary, Lambeth, Parish.*—Wm. Hodgson Pywell, L.R.C.P. Edin., M.R.C.S.E., to the First District.

*Tynemouth Union.*—John Wm. Bramwell, M.B., L.R.C.S., to the Tynemouth District and Workhouse.

JOHN SIMPSON, a beer-seller at Stoke, has been fined £5 and costs (£32 4s. in all) for having sold ale adulterated with not less than 250 grains of salt to the gallon.

WE have much pleasure in learning that a rowing club has lately been formed at the London Hospital, which has received the most active support of both staff and students, Dr. Andrew Clark being president.

ON Saturday last, Professor Erasmus Wilson took the leading part in the ceremony of laying the foundation stone of the porch of Swanscombe Church, near Dartford, Kent. The Professor is a native of Greenhithe, and he has given sums amounting to about £2500 towards the restoration of the old church of Swanscombe, the ecclesiastical district which embraces Greenhithe. The work of restoring the porch was undertaken by the "Erasmus Wilson Lodge" of Freemasons, and the ceremony of laying the stone was carried out in accordance with the Masonic formula.

A TRULY cardiac patient—one suffering from actual disease of the heart—as a rule comes to you complaining, not of that organ, but of one or other of the secondary results of his lesion. He complains of breathlessness or of dropsy, either or both of which may result from that lesion if it be uncompensated, or if the compensation be ruptured. If the patient complain of shortness of breath, as is often the case, you will find that this cardiac breathlessness presents certain distinctive features wherein it differs from pulmonary breathlessness, the most striking of these being the perfect tranquillity of the breathing while the patient is at rest, at the same time that any exertion at once produces so anxious a desire for more air as can be expressed by no fitter term than the air-hunger of the Germans. The amount of lesion is not to be measured by this breathlessness, but its seriousness, as dependent upon the degree in which the compensation is ruptured, may certainly be so. The patient may only puff considerably in going up a hill or ascending a stair, or his shortness of breath may be so great as speedily to compel him to call a halt on attempting either of these feats; or it may be so extreme as to prove distressing on making such perfectly trifling exertions as merely sitting up or turning in bed. At the same time there is no true dyspnœa, or difficult breathing properly so called; there is no obstruction either to inspiration or expiration; there may even be no curtailment of the air-space in the lungs from any cause whatever; the breathing while the patient is at rest is perfectly quiet and natural: yet such is the difficulty—from cardiac causes—of getting the blood aërated, that the slightest exertion produces such a gasping inquietude as is extremely characteristic. This is one form of cardiac asthma, as it is termed; now and then we have another, in which the breathlessness, though not dependent upon exertion, is yet equally independent of pulmonary lesion. In this case the patient wakes gasping and alarmed from his first sleep; he has palpitation, occasionally pain (angina), almost always irregular action of the heart, which is always feeble; now and then the patient is sick, and sometimes vomits a mouthful or two. This form of cardiac asthma is mostly senile in character, and associated with muscular degeneration rather than with valvular lesion. It frequently arises from some slight gastric derangement, which reflexly affects the enfeebled heart in an injurious manner; and it is often the beginning of the end to those affected—the first intimation that the "pitcher is broken at the fountain," and that death has already seized the very citadel of life. Such patients, however, never come to you—you are always sent for to see them; and I have only mentioned this affection now to illustrate the fact that exertion is not always necessary to produce cardiac breathlessness, and that even in this case the panting is characteristic, while the absence of pulmonary lesion marks its cardiac origin. To produce so-called cardiac breathlessness, however, it is not necessary to have actual cardiac disease. Breathlessness depends upon imperfect aëration of the blood, and in the absence of pulmonary lesion may depend upon lesion of the heart or of the blood itself. Even though a patient, then, presents all the characteristic symptoms of cardiac asthma, we must not therefore set him down as certainly labouring under cardiac disease: he may be only anæmic. But inasmuch as anæmia and cardiac disease frequently coexist, the assured presence of the former, evinced by the bloodless condition of the lips, gums, etc., does not exclude the latter. The presence of breathlessness having the characteristic symptoms described, makes us certain that we have to do with a hæmic or a cardiac lesion; which it is, we must determine by further inquiries.—"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874).

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Joseph V. N.*—The influenza epidemic in this country towards the end of 1847 and the beginning of 1848, according to Dr. Farr, was fatal, directly or indirectly, to not less than 5000 persons in six weeks.

A SCIENTIFIC FACT—THE SUN.

Were sun to speak, the Sun could say,
O'er Earth I reign both night and day;
All would remain in darkness quite
Unless I sent my heat and light:
All life would cease without the twain,
And Earth to Chaos come again.
At once Discernment sees from me
That not by mine but His decree
Who reigns o'er me, the worlds and earth,
And gave to all that lives its birth,
To senseless matter form and order,
Time and eternity the border—
Sees that from me, or through me, *two*
Great principles come into view,
Simple, but grand, a great design,
From power and mind the source divine.

*A Reflection.*

If out of matter aught be wrought,
We trace it to design and thought;
In man so gifted proofs are found,
In God the higher proofs abound.
The laws which rule and fashion nature
Can ne'er be traced to lifeless matter;
Design and product need a factor—
No play's perform'd without an actor.
Like alchymist in search of gold,
Many such search, scarce need be told,
Is now pursued by learned men,
Objects to reach beyond their ken.—T. S.

*Bibliopole.*—The Library and Museum of the Royal College of Surgeons will be reopened on October 1.

*H. M., St. Bartholomew's.*—The old students' annual dinner will take place in the grand hall of the Hospital on Thursday, the 1st proximo, when Professor Rolleston, F.R.S., will take the chair.

*Venous Murmurs.*—

"Shake one, and it awakens; then apply
Its polished lips to your attentive ear,
And it remembers its august abodes,
And murmurs as the ocean murmured there."

*Macie.*—Sir Samuel Garth, M.D., published a mock-heroic poem entitled "The Dispensary," in 1697. It referred to a dispute in the College of Physicians respecting the commencement of a charitable institution, in which he strongly advocated the cause of benevolence.

*Tasso.*—Dr. George Budd on "Diseases of the Stomach." Dr. T. King Chambers on "Digestion and its Derangements."

*Narcissus.*—The first regular advertisement which has been met with, was in No. 7 of the *Impartial Intelligencer*—the first number of which appeared on March 7, 1649. It is from a gentleman of Cavendish, in Suffolk, from whom two horses had been stolen.

*Important to Journalists.*—After many adjournments and prolonged arguments, Vice-Chancellor Little decided at Liverpool on the 12th ult. a case of the highest importance to proprietors of the press. The editor, Mr. John Vaughan, of the Liverpool *Leader*, had been summoned before the Registrar to answer interrogatories as to the sources of his information for articles which appeared in the *Leader* referring to the Civil Service Association. Mr. Vaughan declined to disclose his informants, and took the responsibility of the articles upon himself. The Vice-Chancellor decided that he was not bound to answer the questions.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette Médicale de Paris—Gazette Hebdomadaire—La Tribune Médicale—La France Médicale—Le Progrès Médical—Gazette des Hôpitaux—Bulletin de l'Académie de Médecine—Bulletin Général de Thérapeutique—The Obstetrical Journal of Great Britain and Ireland—Lincoln Gazette—American Journal of Insanity—Monthly Microscopical Journal—Science Gossip—Nature—Irish Hospital Gazette—L'Archives Générales de Médecine—Greenhithe Monthly Magazine—Public Health—Students' Journal and Hospital Gazette—Edinburgh Medical Journal.

BOOKS AND PAMPHLETS RECEIVED—

Barnes's Notes on Surgical Nursing—Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital—Nouveau Système prouvé par l'Existence du Peuple Juif, par P. A. F. Bobœuf—Half-yearly Report of the Medical Officer of Health for the Port of London—Harvey on the Past Progress and the Present Aspects of Medicine, in relation chiefly to Therapeutics—Clinical Report of the Lying-in Service at the Bellevue Hospital, New York—Archives of Ophthalmology, vol. iii., No. 2, and vol. iv., No. 1—Muter's Introduction to Pharmaceutical and Medical Chemistry—Bennett on How to Restore the Walking Powers and Muscular Movements generally—Quarterly Return of the Marriages, Births, and Deaths in Ireland—Annual Report of the Sanitary Condition of Ipswich—Note on the Perception of Musical Sounds, by J. G. M'Kendrick, M.D.—Sur l'Uréthrotomie Interne, par Professeur Barbosa, traduction française par le Dr. Bertherand—Du Traitement de l'Angine Diphthérique par les Fleurs de Soufre, par Professeur Barbosa, traduction française par le Dr. Bertherand—Memoria sobre a Laqueaçao da Arteria Iliaca Primitiva a Proposito d'Esta Operaçao, par Professeur Barbosa.

COMMUNICATIONS have been received from—

Dr. Percy Leslie, London; A North Carolina Subscriber; Mr. E. P. Hayward, London; Mr. E. Lyon, London; Mr. Hussey, Oxford; Dr. Garde, Kinsale; Dr. J. G. M'Kendrick, Edinburgh; Mr. J. Lewtas, M.B., Liverpool; Mr. P. Wood Bunning, Newcastle; Professor Struthers, Aberdeen; Mr. T. Stokes, Nailsworth; The Registrar-General, Edinburgh; Mr. Godlee, London; Mr. H. K. Evans, London; Dr. John Dougall, Glasgow; Dr. Willoughby Arding, Wallingford; Dr. Wm. Strange, Worcester; Mr. Donelly, Dublin; Dr. John Macpherson, London; Mr. E. Bellamy, London; Mr. J. Chatto, London; Dr. J. P. Irvine, London.

## APPOINTMENTS FOR THE WEEK.

*September 5. Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

7. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

8. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

9. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

10. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

11. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, August 29.*

### BIRTHS.

Births of Boys, 1137; Girls, 1046; Total, 2183.
Average of 10 corresponding years 1864-73, 2062·9.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 644 | 590 | 1234 |
| Average of the ten years 1864-73 | 723·2 | 682·6 | 1405·8 |
| Average corrected to increased population | ... | ... | 1546 |
| Deaths of people aged 80 and upwards | ... | ... | 36 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | ... | 6 | 2 | 4 | ... | 1 | 1 | 11 |
| North... ... | 751729 | ... | 1 | 13 | 5 | 5 | 2 | 4 | ... | 21 |
| Central ... | 334369 | ... | 2 | 7 | 1 | 2 | ... | 2 | ... | 8 |
| East ... ... | 639111 | ... | 10 | 33 | 1 | 2 | 3 | 5 | 2 | 21 |
| South... ... | 967692 | ... | 3 | 13 | 1 | 4 | 1 | 6 | 1 | 39 |
| Total ... ... | 3254260 | ... | 16 | 72 | 10 | 17 | 6 | 18 | 4 | 100 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·845 in. |
| Mean temperature | 59·4° |
| Highest point of thermometer | 79·9° |
| Lowest point of thermometer | 44·0° |
| Mean dew-point temperature | 52·5° |
| General direction of wind | Variable. |
| Whole amount of rain in the week | 0·23 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, August 29, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Aug. 29. | Deaths Registered during the week ending Aug. 29. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2183 | 1234 | 79·9 | 44·0 | 59·4 | 15·22 | 0·23 | 0·58 |
| Portsmouth ... | 120436 | 26·8 | 79 | 28 | ... | ... | ... | ... | 0·32 | 0·81 |
| Norwich ... ... | 82257 | 11·0 | 55 | 30 | 71·5 | 40·5 | 55·2 | 12·89 | 0·03 | 0·08 |
| Bristol ... ... | 192889 | 43·3 | 180 | 66 | 75·4 | 49·0 | 59·7 | 15·39 | 0·37 | 0·94 |
| Wolverhampton ... | 70896 | 20·9 | 59 | 37 | 73·6 | 46·8 | 58·5 | 14·72 | 0·76 | 1·93 |
| Birmingham ... | 360892 | 43·0 | 254 | 196 | 72·8 | 44·6 | 58·0 | 14·44 | 0·49 | 1·24 |
| Leicester ... ... | 106202 | 33·2 | 73 | 42 | 70·9 | 44·1 | 56·8 | 13·78 | 0·57 | 1·45 |
| Nottingham ... | 90894 | 45·5 | 70 | 31 | 76·4 | 42·8 | 57·5 | 14·16 | 0·42 | 1·07 |
| Liverpool ... ... | 510640 | 98·0 | 350 | 344 | 73·5 | 50·5 | 58·3 | 14·61 | 0·66 | 1·68 |
| Manchester ... | 355339 | 82·8 | 281 | 201 | 73·5 | 48·2 | 59·0 | 15·00 | 0·57 | 1·45 |
| Salford ... ... | 133068 | 25·7 | 105 | 78 | 72·6 | 46·8 | 57·2 | 14·00 | 0·83 | 2·11 |
| Oldham ... ... | 86281 | 18·5 | 64 | 56 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 139 | 85 | 73·4 | 46·0 | 56·8 | 13·78 | 0·17 | 0·43 |
| Leeds ... ... | 278798 | 12·9 | 262 | 155 | 76·0 | 44·0 | 57·6 | 14·22 | 0·11 | 0·28 |
| Sheffield ... ... | 261029 | 13·3 | 211 | 118 | 69·0 | 44·0 | 56·3 | 13·50 | 0·19 | 0·48 |
| Hull ... ... ... | 130996 | 36·0 | 91 | 79 | 70·0 | 40·0 | 54·3 | 12·39 | 0·10 | 0·25 |
| Sunderland ... | 104378 | 31·6 | 73 | 63 | 73·0 | 46·0 | 58·0 | 14·44 | 0·15 | 0·38 |
| Newcastle-on-Tyne | 135437 | 25·2 | 139 | 85 | ... | ... | ... | ... | ... | ... |
| Edinburgh ... ... | 211691 | 47·8 | 118 | 74 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 377 | 255 | ... | ... | ... | ... | ... | ... |
| Dublin ... ... | 314666 | 31·3 | 139 | 123 | 77·9 | 41·0 | 58·9 | 14·94 | 1·30 | 3·30 |
| Total of 21 Towns in United Kingdom | 7618655 | 36·6 | 5302 | 3380 | 79·9 | 40·0 | 57·6 | 14·22 | 0·43 | 1·09 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·85 in. The highest was 30·21 in. at the beginning of the week, and the lowest 29·56 in. on Saturday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# RULES AND REGULATIONS

OF THE

# EXAMINING MEDICAL BODIES IN ENGLAND.

SESSION 1874-75.

REGISTRATION OF MEDICAL STUDENTS BY THE GENERAL MEDICAL COUNCIL.

THE following regulations have been adopted by the General Medical Council in reference to the registration of students of Medicine:—

1. Every medical student shall be registered in the manner prescribed by the General Medical Council.

2. No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council.

3. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.

4. The registration of medical students shall be placed under the charge of the Branch Registrars.

5. Each of the Branch Registrars shall keep a register of medical students according to the subjoined form:—

*Form for the Registration of Medical Students.*

| Date of Registration. | Name. | Preliminary Examination and Date. | Place of Medical Study. |
|---|---|---|---|
| | | | |

6. Every person desirous of being registered as a medical student shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to the annexed form, which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and a statement of his place of medical study.

7. The Branch Registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a certificate of such registration.

8. Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank forms of application for the registration of medical students.

9. The several Branch Councils shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory.

10. A copy of the Register of Medical Students, prepared by each of the Branch Registrars, shall be transmitted, on or before December 31 in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply copies of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to the several medical schools and hospitals.

11. The several qualifying bodies are recommended not to admit, after October, 1870, to the final examination for a qualification under the Medical Acts, any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least four years previously.

In the case of candidates from other than schools of the United Kingdom the Branch Councils shall have power to admit exceptions to this recommendation.

PRELIMINARY EXAMINATIONS IN ARTS RECOGNISED BY THE GENERAL MEDICAL COUNCIL.

"That testimonials of proficiency granted by the national educational bodies, according to the subjoined list, may be accepted, the Council reserving the right to add to or take from the list." (A degree in Arts of any university of the United Kingdom, or of the colonies, or of such other universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient testimonial of proficiency.)

LIST OF EXAMINING BODIES WHOSE EXAMINATIONS FULFIL THE CONDITIONS OF THE MEDICAL COUNCIL AS REGARDS PRELIMINARY EDUCATION.

I. Universities of the United Kingdom.—Oxford: Examination for a Degree in Arts; Responsions; Moderations; Local Examinations (Senior), certificate to include Latin and Mathematics. Local Examinations (Junior), certificate to include Latin and Mathematics, and also one of the following optional subjects—viz., Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. Cambridge: Examination for a Degree in Arts: Previous Examination; Local Examination (Senior), certificate to include Latin and Mathematics. Local Examinations (Junior), certificate to include Latin and Mathematics, and also one of the following optional subjects—viz., Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. Durham: Examination for a Degree in Arts; Examination for students in their second and first years; Registration Examination for Medical Students; Local Examinations (Senior), certificate to include Latin and Mathematics. Local Examinations (Junior), certificate to include Latin and Mathematics, and also one of the following optional subjects—viz., Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. Oxford and Cambridge Schools Examination Board: Certificate to include—1. English language, including grammar and composition. 2. Arithmetic, including vulgar and decimal fractions; Algebra, including simple equations. 3. Geometry—First two books of Euclid. 4. Latin, including translation and grammar, and one of the following optional subjects—Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. London: Examination for a Degree in Arts; Matriculation Examination. Aberdeen, Edinburgh, Glasgow, St. Andrews: Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine or Surgery. Edinburgh: Examination of (Senior) Candidates for Honorary Certificates under the Local Examinations of the University of Edinburgh. Dublin: Examination for a Degree in Arts; Entrance Examination. Queen's University (Ireland): Examination for a Degree in Arts; Entrance Examination; Examination for the Diploma of Licentiate in Arts; Previous Examination for B.A. Degree.

II. Other bodies named in Schedule (A) to the Medical Act.—Royal College of Surgeons of England: Examination conducted under the superintendence of the College of Surgeons, by the Board of Examiners of the Royal College of Preceptors. The Society of Apothecaries of London: Examination in Arts. Royal College of Physicians, Edinburgh, Royal College of Surgeons, Edinburgh: Preliminary Examination in General Education, conducted by a board appointed by these two Colleges combined. Faculty of Physicians and Surgeons of Glasgow: Preliminary Examination in General Literature. Royal College of Surgeons in Ireland: Preliminary Examination, certificate to include Mathematics. Apothecaries' Hall of Ireland: Preliminary Examination in General Education.

III. Examining Bodies in the United Kingdom, not included in Schedule (A) to the Medical Act.—Royal College of Preceptors: Examination for a first-class certificate.

IV.—Colonial and Foreign Universities and Colleges.—Universities of Calcutta, Madras, and Bombay: Entrance Examination, certificate to include Latin. M'Gill College, Montreal: Matriculation Examination. University of Toronto; Trinity College, Toronto; Queen's College, Kingston; and Victoria College, Upper Canada: Matriculation Examination. King's College, Nova Scotia: Matriculation Examination; Responsions. Dalhousie College and University, Halifax, Nova Scotia: Matriculation Examination. University of Fredericton, New Brunswick: Matriculation Examination. University of Melbourne: Matriculation Examination, certificate to include all the subjects required by the General Medical Council. University of Sydney: Matriculation Examination. University of the Cape of Good Hope: Matriculation Examination Codrington College, Barbadoes: 1. English certificate for students of two years' standing, specifying the subjects of examination; 2. Latin certificate, or "Testamur." Tasmanian Council of

Education: Examination for the degree of Associate of Arts, certificate to include Latin and Mathematics. Christ's College, Canterbury, New Zealand: Voluntary Examinations, certificate to include all the subjects required by the General Medical Council. The Examiners for Commissions in the Military and Naval Services of the United Kingdom: Certificate to include all the subjects required by the General Medical Council. South Australia, South Australian Institute, Adelaide: Preliminary General Examination.

FORM OF APPLICATION FOR REGISTRATION AS A MEDICAL STUDENT.

I hereby apply to be registered as a student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars:—

| Name of Applicant. (To be written in words at length.) | | Preliminary Examination. | Date of Preliminary Examination. | Place of Medical Study. |
|---|---|---|---|---|
| Surname. | Christian Name. | | | |
| | | | | |

Applicant's Signature,_____

Address,_____

Date of Application,_____

To the Registrar of the Branch Council for_____

N.B.—The above form of application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a certificate of the applicant's having passed a preliminary examination as required by the General Medical Council, and a statement of his place of medical study. The certificate of examination must testify that the student has been examined in—1. English Language, including grammar and composition; 2. Arithmetic, including vulgar and decimal fractions; Algebra, including simple equations; 3. Geometry—first two books of Euclid; 4. Latin, including translation and grammar. And in one of the following optional subjects—Greek; French; German; Natural Philosophy, including mechanics, hydrostatics, and pneumatics.

## UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

Every student in Medicine is required to pass all the examinations for the degree of B.M., and to reckon the time of his medical study from the final examination for Arts.

1. Candidates for the degree of B.M. are required to pass two examinations, each of which is held yearly in full Michaelmas Term, usually at the end of November, due notice being given, in the usual manner, by the Regius Professor of Medicine. Each examination is conducted by the Regius Professor of Medicine and three persons who have been admitted to Regency either as Masters of Arts or as Doctors, and who are nominated yearly by the Vice-Chancellor, subject to the approval of Convocation. Each examination is conducted partly in writing, partly *vivâ voce*, and part of each is practical. The subjects of the first examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine. The subjects of the second examination are the Theory and Practice of Medicine (including Diseases of Women and Children), the Materia Medica, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every candidate at this second examination is to be examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus, or in one of those four, and in some modern author approved by the Regius Professor.(a) His knowledge of disease also is tested at the bedside, and he is required to make observations with the microscope or any other aids to diagnosis with respect to patients submitted to him.

Before a candidate is admitted to the first of these two examinations, he must have spent two years in professional studies after having passed the examinations required for the degree of B.A., unless he was placed in the first or second class in the School of Natural Science, in which case, if he received from the public examiners a special certificate of his attainments in Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this examination at once, and need not then be examined again in any science specified in such certificate. Instruction in Natural Science is carried on at the University Museum, where there is practical instruction in Physics, Chemistry, and Anatomy and Physiology, together with courses of lectures by the professors in those and other subjects.(b) Large collections illustrate the several subjects; there is a pathological series, including the collection of Schröder van der Kolk, in the medical department, where there is also a medical laboratory. The Radcliffe Library, containing nearly 20,000 scientific volumes, is open daily to all students from ten till four, and on certain evenings during term. Before a candidate is admitted to the second examination, he must have completed sixteen terms from the date of the same *testamur* and two years from the date of his *testamur* in the first medical examination, and must deliver to the Regius Professor satisfactory certificates of his attendance at some first-class hospital. Everyone intending to be a candidate at either examination is required to give the Professor notice of his intention a fortnight at least before the week in which the examination is to be held.

No one from another University can be incorporated as a Graduate in Medicine without passing these two examinations.

2. A Bachelor of Medicine wishing to proceed to the degree of Doctor is required to read publicly within the precincts of the Schools, in the presence of the Regius Professor, a dissertation composed by himself on some medical subject approved by the Professor, and to deliver to him a copy of it.

(a) Such as Morgagni, Sydenham, Boerhaave.

## UNIVERSITY OF CAMBRIDGE.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

*Degree of Bachelor of Medicine.*—Before a student can become a Bachelor of Medicine he must have resided nine terms (three academical years).

Five years of medical study are required, of which time six terms (two academical years) shall be spent in the University after the student has passed the previous examination. In the case of those who have graduated with honours as Bachelor of Arts, four years of medical study are deemed sufficient, and four terms only of medical study in the University are required.

The previous examination in Classics and Mathematics may be passed in the first or the second term of residence. In addition to the previous examination, the student is required to pass an examination in Algebra at the same time or in some subsequent term. The certificate of the Oxford and Cambridge Leaving Schools Examinations is accepted, instead of part of the whole of the previous examination and the examination in Algebra.

There are three examinations for M.B.

The first examination is in—1. Mechanics and Hydrostatics; 2. Chemistry, with heat and electricity; 3. Botany. Before presenting himself for it the student must have attended lectures on Chemistry, including manipulations, and on Botany. (Students who have obtained honours in any tripos or passed the general examination for B.A. are not required to be examined in Mechanics and Hydrostatics; and those who have passed the special examination in Botany for B.A. are not required to be again examined in that subject.)

Students who have obtained honours in the Natural Sciences Tripos and have passed satisfactorily in Chemistry, with heat and electricity, and Botany, are exempted from this first examination.

The second examination is in—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacology. The student must have completed two years of medical study, the time of medical study required to be spent in the University being included in these two years; and must also

(b) Regius Professor of Medicine, H. W. Acland, M.D., LL.D., F.R.S.; Professor of Geometry, H. J. S. Smith, M.A., F.R.S.; Professor of Natural Philosophy, Rev. B. Price, M.A., F.R.S.; Professor of Experimental Physics, R. B. Clifton, M.A., F.R.S.; Professor of Chemistry, W. Odling, M.A.; Linacre Professor of Physiology, G. Rolleston, M.D., F.R.S.; Professor of Zoology, J. O. Westwood, M.A., F.L.S.; Professor of Geology, Joseph Prestwich, F.R.S., F.G.S.; Professor of Mineralogy, N. S. Maskelyne, M.A., F.R.S.; Lea's Reader in Anatomy, J. B. Thompson, B.A.; Demonstrator in Anatomy, Charles Robertson, Esq.; Demonstrator of Chemistry, T. H. G. Wyndham, M.A.; Professor of Botany at the Physic Gardens, M. Lawson, M.A., Magdalen College; Lecturer in Natural Science at Magdalen College, E. Chapman, M.A.; Lea's Reader in Chemistry at Christ Church, A. G. V. Harcourt, M.A., F.R.S.; Lea's Reader in Physics, Robert E. Baynes, B.A.

produce certificates of attendance on lectures on the Elements of Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, and Pathology; and of one year's hospital practice, and of one season's dissections.

Students who have obtained honours in the Natural Sciences Tripos, and have passed with credit the examinations in Chemistry, Botany, or Comparative Anatomy, are not required to be again examined in those subjects.

The third examination is in—1. Pathology and Practice of Physic (two papers); 2. Clinical Medicine (in the wards of the Hospital); 3. Medical Jurisprudence. The candidate must have completed the course of medical study, and must produce certificates of attendance on one course of lectures on each of the following subjects:—Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudenec, and Midwifery; and of having attended hospital practice during three years, and of having been clinical clerk for six months at a recognised hospital, or of having had special charge of hospital, dispensary, or union patients under a qualified medical practitioner.

After the third examination an Act has to be kept, which consists in reading an original thesis, followed by a *vivâ voce* examination on the subject of the thesis, as well as on other subjects of the Faculty.

*The Degree of Doctor of Medicine* may be taken three years after M.B. An Act has to be kept, with *vivâ voce* examination, and an essay has to be written extempore. A Master of Arts of four years' standing can proceed direct to M.D., provided he produces the same certificates and passes the same examinations as for M.B.

*Degree of Master in Surgery.*—The candidate must have passed all the examinations for the degree of M.B., and must produce certificates of having attended a second course of lectures on Human Anatomy, one course of lectures on the Principles and Practice of Surgery, one year's clinical surgical lectures, ten cases of midwifery, a second season of dissections, three years' surgical practice of a recognised hospital, and of having been House-Surgeon or Dresser for six months. The subjects of the examination are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery; and 4. Midwifery.

The examinations are partly in writing and partly *vivâ voce* in the dissecting-room and in the hospital. They take place in the Michaelmas and Easter Terms, an interval of two days being allowed to intervene between the first and second examinations for M.B.

All the subjects required for the first and second examinations may be fully studied, and the necessary certificates obtained, in the Medical School of the University. The attendance at the Hospital and lectures in Cambridge is also recognised by the University of London, and by the College of Surgeons and the Society of Apothecaries.

## UNIVERSITY OF LONDON.

### BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine shall be required—

1. To have passed the matriculation examination, or to have taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras (if Latin has been one of the subjects in which he has passed).

2. To have passed the preliminary scientific examination.

3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, at one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom.

4. To pass two examinations in Medicine.

### PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.(a)

The preliminary scientific examination shall take place once in each year, and shall commence on the third Monday in July.

[Candidates for the degree of M.B. are strongly recommended by the Senate to pass the preliminary scientific examination before commencing their regular medical studies; and to devote a preliminary year to preparation for it according to the following programme:—*Winter Session:* Mechanical and Natural Philosophy, Chemistry (especially Inorganic), Zoology. *Summer Session:* Practical Chemistry (Inorganic), Botany.]

No candidate shall be admitted to this examination until he shall have completed his seventeenth year, and shall have either passed the matriculation examination(b) or taken a degree in Arts in either of the Universities of Sydney, Melbourne, or Calcutta (provided, in the last case, that Latin has been one of the subjects in which he has passed); nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the examination.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects of the First B.Sc. examination(c):—Mechanical and Natural Philosophy, Inorganic Chemistry, Botany and Vegetable Physiology, Zoology.

### EXAMINATION FOR HONOURS.

Any candidate who has passed the preliminary scientific (M.B.) examination in all its subjects may be examined at the honours examination next following the preliminary scientific (M.B.) examination at which he has passed, in (1) Experimental Physics, (2) Chemistry, (3) Botany, and (4) Zoology; unless he have previously obtained an exhibition in either of these subjects at the first B.Sc. examination, in which case he shall not be admissible to the examination for honours in that subject.

If, in the opinion of the examiners, any candidate of not more than twenty-two years of age at the commencement of the pass examination, who shall have passed either the first B.Sc. examination or the preliminary scientific (M.B.) examination, shall possess sufficient merit, the candidate who shall distinguish himself the most of all the candidates who shall have passed either of the said examinations, and who were not more than twenty-two years of age at the commencement of the pass examination, in Experimental Physics;(d) the candidate who shall have distinguished himself the most of all the candidates who have passed either of the said examinations, and who were not more than twenty-two years of age at the commencement of the pass examination, in Chemistry; the candidate who shall have distinguished himself the most of all the candidates who have passed either of the said examinations, and who were not more than twenty-two years of age at the commencement of the pass examination, in Botany; and the candidate who shall distinguish himself the most of all the candidates who shall have passed either of the said examinations, and who were not more than twenty-two years of age at the commencement of the pass examination, in Zoology,—shall each receive an exhibition of forty pounds per annum for the next two years, payable in quarterly instalments (it being intended that one exhibition only shall be given in each case among all the candidates, although some of such candidates may have passed the first B.Sc. examination, and others the preliminary scientific (M.B.) examination); provided that on receiving each instalment he shall declare his intention of presenting himself either at the second B.Sc. examination within two academical years(e) from the time of his passing the first B.Sc. examination, or at the first M.B. examination within three academical years from the time of

(a) Candidates who matriculated previously to January, 1861, will not be required to pass the preliminary scientific (M.B.) examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the preliminary scientific examination and the first M.B. examination in the same year if they so prefer.

(b) A certificate of age must be produced by every candidate who passed the matriculation examination in the preceding January or June.

(c) Candidates who shall pass in all the subjects of the preliminary scientific (M.B.) examination, and also *at the same time* in the Mathematics of the first B.Sc. examination, shall be considered as having passed both the preliminary scientific examination and also the first B.Sc. examination, without being required to pay an additional fee; and candidates who shall pass in all the subjects of the preliminary scientific (M.B.) examination, and who shall have *previously* passed the first B.A. examination, shall be admissible to the second B.Sc. examination.

(d) The Exhibition in Experimental Physics having been provided by the liberal endowment of Dr. Arnott, will be entitled "The Neil Arnott Exhibition."

(e) By the term "academical year" is ordinarily meant the period intervening between any examination and an examination of a higher grade in the following year, which period may be either *more* or *less* than a calendar year. Thus the interval between the *first* examinations in Arts, Science, and Medicine, and the *second* examinations of the next year in those Faculties respectively, is about sixteen months; whilst the interval between the second B.A. examination and the M.A. examination of the next year, or between the second B.Sc. examination and the D.Sc. examination of the next year, is less than eight months. Nevertheless, each of these intervals is counted as an "academical year." Candidates who had attained the age of twenty-one years before January 1, 1860, are admissible to the successive examinations for degrees in Science without the intervals between them prescribed by the Regulations. Candidates who have been admitted to the first B.Sc. examination within six months after passing the matriculation examination will be required to give evidence of having completed their eighteenth year.

his passing the preliminary scientific (M.B.) examination, as the case may be.

Under the same circumstances the first and second candidates for honours in Experimental Physics shall each receive a Neil Arnott Bronze Medal.

FIRST M.B. EXAMINATION.

The first M.B. examination shall take place once in each year, and shall commence on the last Monday in July.

No candidate shall be admitted to this examination unless he have passed the preliminary scientific examination at least one year previously,(f) and have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having, subsequently to having passed the matriculation examination, or taken a degree in Arts in one of the before-named universities, been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine. 3. Of having, subsequently to having passed the matriculation examination, or taken a degree in Arts, dissected during two winter sessions. 4. Of having, subsequently to having passed the matriculation examination, or taken a degree in Arts, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of general and pharmaceutical chemistry; in applying tests for discovering the adulteration of articles of the Materia Medica, and the presence and nature of poisons; and in the examination of mineral waters, animal secretions, urinary deposits, calculi, etc. 5. Of having attended to practical pharmacy, and of having acquired a practical knowledge of the preparation of medicines.

These certificates shall be transmitted to the Registrar at least *fourteen days* before the commencement of the examination.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—Anatomy, Physiology,(g) Materia Medica and Pharmaceutical Chemistry, Organic Chemistry,

EXAMINATION FOR HONOURS.

Any candidate who has been placed in the first division at the first M.B. examination may be examined at the Honours examination next following the first M.B. examination at which he has passed, for honours in (1) Anatomy, (2) Physiology, Histology, and Comparative Anatomy, and (3) Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry. If in the opinion of the examiners sufficient merit be evinced, the candidate who shall distinguish himself the most in Anatomy, the candidate who shall distinguish himself the most in Physiology, Histology, and Comparative Anatomy, and the candidate who shall distinguish himself the most in Materia Medica, Pharmaceutical Chemistry, and Organic Chemistry, shall each receive an exhibition of £40 per annum for the next two years, payable in quarterly instalments; provided that on receiving each instalment he shall declare his intention of presenting himself at the second M.B. examination within three academical years(h) from the time of his passing the first M.B. examination. Under the same circumstances, the first and second candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

SECOND M.B. EXAMINATION.(i)

The second M.B. examination shall take place once in each year, and shall commence on the first Monday in November. No candidate shall be admitted to this examination within two academical years(k) of the time of his passing the first examination, nor unless he have produced certificates to the following effect:—1. Of having passed the first M.B. examination. 2. Of having, subsequently to having passed the first M.B. examination, attended a course of lectures on each of two of the subjects comprehended in the list previously given,(l) and for which the candidate had not presented certificates at the first M.B. examination. 3. Of having conducted at least twenty labours. (Certificates on this subject will be received from any legally qualified practitioner in Medicine.) 4. Of having attended the surgical practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery. 5. Of having attended the medical practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Medicine. N.B.—The student's attendance on the surgical and on the medical hospital practice specified in Regulations 4 and 5 may commence at any date after his passing the preliminary scientific examination, and may be comprised either within the same year or within different years; provided that in every case his attendance on surgical and medical hospital practice be continued for at least eighteen months subsequently to his passing the first M.B. examination. Attendance during three months in the wards of a lunatic asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.(m) 6. Of having, subsequently to the completion of his attendance on surgical and medical hospital practice, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients in a hospital, infirmary, dispensary, or parochial union, during six months. 7. Of having acquired proficiency in vaccination. Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council. The candidate shall also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. These certificates shall be transmitted to the Registrar at least *fourteen days* before the examination begins.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Obstetric Medicine, Forensic Medicine. The examinations shall include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. N.B.—Candidates will be expected to write prescriptions in Latin, without abbreviations. The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right as such to assume the title of Doctor of Medicine.

EXAMINATION FOR HONOURS.

Any candidate who has been placed in the first division at the second M.B. examination may be examined at the honours examination next following the second M.B. examination at which he has passed, for honours in (1) Medicine, (2) Obstetric Medicine, and (3) Forensic Medicine.

If in the opinion of the examiners sufficient merit be evinced, the candidate who shall distinguish himself the most in Medicine shall receive £50 per annum for the next two years, with the style of University Scholar in Medicine.

Under the same circumstances, the candidate who shall distinguish himself the most in Obstetric Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Obstetric Medicine.

Under the same circumstances, the candidate who shall distinguish himself the most in Forensic Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine.

Under the same circumstances, the first and second candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

BACHELOR OF SURGERY.

The examination for the degree of Bachelor of Surgery shall take place once in each year, and shall commence on the Tuesday following the fourth Monday in November.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—1. Of having passed the second examination for the degree of

(f) *See* footnote (a).

(g) Any candidate shall be allowed, if he so prefer, to postpone his examination in Physiology from the first M.B. examination at which he presents himself for examination in the remaining subjects until the first M.B. examination in the next or any subsequent year; but such candidate shall not be admitted to compete for honours on either occasion; and he shall not be admitted as a candidate at the second M.B. examination until after the lapse of at least twelve months from the time of his passing the examination in Physiology.

(h) *See* footnote (e).

(i) Any candidate for the second M.B. examination who has passed the first M.B. examination under the former regulations will be required to have also passed the examination in Physiology at some previous first M.B. examination carried on under the present regulations, at which examination he shall not be allowed to compete for honours.

(k) *See* footnote (e).

(l) *See* First M.B. Examination, Clause 2.

(m) The Senate regard it as highly desirable that candidates for the degree of M.B. should practically acquaint themselves with the different forms of insanity by attendance in a lunatic asylum.

Bachelor of Medicine in this University. 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject.

These certificates shall be transmitted to the Registrar at least *fourteen days* before the examination begins.

The fee for this examination shall be £5.

The examinations comprise Surgical Anatomy and Surgical Operations, by printed papers. Examination, and report on cases, of surgical patients; performance of surgical operations upon the dead subject; application of surgical apparatus; *vivâ voce* interrogation.

EXAMINATION FOR HONOURS.

Any candidate who has been placed in the first division of the B.S. examination may be examined at the honours examination next following the B.S. examination at which he has passed, for honours in Surgery.

If, in the opinion of the examiners, sufficient merit be evinced, the candidate who shall distinguish himself the most shall receive £50 per annum for the next two years, with the style of University Scholar in Surgery.

Under the same circumstances, the first and second candidates shall each receive a gold medal of the value of £5.

MASTER IN SURGERY.

The examination for the degree of Master in Surgery shall take place once in each year, and shall commence on the fourth Monday in November.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—1. Of having taken the degree of Bachelor of Surgery(n) in this University. 2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University—*a*. To clinical or practical surgery during two years in a hospital or medical institution recognised by this University; *b*. Or to clinical or practical surgery during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession; *c*. Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University. One year of attendance on clinical or practical surgery, or two years of practice, will be dispensed with in the case of those candidates who, at the B.S. examination, have been placed in the first division. 3. Of moral character, signed by two persons of respectability.

These certificates shall be transmitted to the Registrar at least *fourteen days* before the examination begins.

The fee for the degree of Master in Surgery shall be £5.

The examination shall be conducted by means of printed papers and *vivâ voce* interrogation, and includes Logic and Moral Philosophy. (Any candidate who has taken the degree either of B.A., B.Sc., or M.D. in this University is exempted from this part of the examination; and any candidate who has passed the second M.B. examination may at any subsequent M.S. examination present himself for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.) Surgery, including a commentary on a case in Surgery, by printed papers; Surgical Anatomy, by printed papers; Surgery, by printed papers. Examination, and report on cases, of surgical patients in the wards of a hospital. Dissection of a surgical region or performance of surgical operations; *vivâ voce* interrogation.

If in the opinion of the examiners sufficient merit be evinced, the candidate who shall distinguish himself the most in Surgery at the examination for the degree of Master in Surgery shall receive a gold medal of the value of £20.

DOCTOR OF MEDICINE.

The examination for the degree of Doctor of Medicine shall take place once in each year, and shall commence on the fourth Monday in November. No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—1. Of having passed the second examination for the degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University—*a*. To clinical or practical Medicine during two years in a hospital or medical institution recognised by this University. *b*. Or to clinical or practical Medicine during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession. *c*. Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University. One year of attendance on clinical or practical Medicine, or two years of practice, will be dispensed with in the case of those candidates who at the second M.B. examination have been placed in the first division. 3. Of moral character, signed by two persons of respectability.

These certificates shall be transmitted to the Registrar at least *fourteen days* before the examination begins.

The fee for the degree of Doctor of Medicine shall be £5.(o)

The examination shall be conducted by means of printed papers and *vivâ voce* interrogation, and includes Logic and Moral Philosophy. Any candidate who has taken the degree either of B.A., B.Sc., or M.S. in this University, is exempted from this part of the examination; and any candidate who has passed the second M.B. examination may at any subsequent M.D. examination present himself for Logic and Moral Philosophy alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Doctor of Medicine.

Medicine, including a commentary on a case in Medicine or Obstetric Medicine, at the option of the candidate, by printed papers; Medicine, by printed papers. Examination, and report on cases, of medical patients in the wards of a hospital. *Vivâ voce* interrogation and demonstration from specimens and preparations.

If in the opinion of the examiners sufficient merit be evinced, the candidate who shall distinguish himself the most in Medicine at the examination for the degree of Doctor of Medicine shall receive a gold medal of the value of £20.

REGULATIONS RELATING TO CANDIDATES WHO COMMENCED THEIR MEDICAL STUDIES IN OR BEFORE JANUARY, 1839.

*Bachelor of Medicine.*—Candidates who commenced their professional studies in or before January, 1839, shall be required to pass the preliminary scientific examination in Chemistry and Botany only, and shall be admitted to the first examination for the degree of Bachelor of Medicine on producing certificates to the following effect:—1. Of having been engaged during two years in their professional studies. 2. Of having attended a course of lectures on each of four of the subjects comprehended in the list previously given.(p) 3. Of having dissected during nine months. 4. Of having attended to practical Pharmacy during a sufficient length of time to enable them to acquire a practical knowledge in the preparation of medicines.

Candidates who commenced their professional studies in or before January, 1839, shall be admitted to the second examination for the degree of Bachelor of Medicine on producing certificates to the following effect:—1. Of having been engaged during four years in their professional studies. 2. Of having passed the first M.B. examination. 3. Of having attended a course of lectures on each of two of the subjects comprehended in the list previously given.(q) 4. Of having dissected during twelve months. 5. Of having attended to practical Pharmacy during a sufficient length of time to enable them to acquire a practical knowledge in the preparation of medicines. 6. Of having conducted at least six labours. 7. Of having attended the surgical practice of a recognised hospital or hospitals during twelve months. 8. Of having attended the medical practice of a recognised hospital or hospitals during other twelve months. 9. Of moral character from a teacher in the last school or institution at which they have studied, so far as the teacher's opportunity of knowledge has extended.

Candidates who have not taken a degree in Arts or passed the matriculation examination in this University, will be required to translate a portion of Celsus *de Re Medicâ*.

REGULATIONS RELATING TO PRACTITIONERS IN MEDICINE OR SURGERY DESIROUS OF OBTAINING DEGREES IN MEDICINE.(r)

*Bachelor and Doctor of Medicine.—Bachelor of Medicine.*—Candidates shall be admitted to the two examinations for the

(n) Candidates who have obtained the degree of Bachelor of Medicine previously to 1866 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates, the attendance on surgical practice required by Regulation 2 may commence from the date of the M.B. degree.

(o) This fee will continue to be £10 to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of £5 at the preliminary scientific examination.

(p) *See* First M.B. Examination, Clause 2.

(q) *See* First M.B. Examination, Clause 2.

(r) All these regulations are applicable exclusively to practitioners who obtained their licence or commissions prior to 1840.

degree of Bachelor of Medicine on producing certificates to the following effect:—1. Of having been admitted prior to the year 1840 members of one of the legally constituted bodies in the United Kingdom for licensing practitioners in Medicine or Surgery; or of having served previously to 1840 as Surgeons or Assistant-Surgeons in her Majesty's Army, Ordnance, or Navy, or in the service of the Honourable the East India Company. 2. Of having received a part of their education at a recognised institution or school, as required by the charter of the University. 3. Of moral character, signed by two persons of respectability.

Candidates who have not taken a degree in Arts, or passed the matriculation examination in this University, will be required to translate a portion of Celsus *de Re Medicâ*.

*Doctor of Medicine.*—Candidates who have been engaged during five years in the practice of their profession shall be admitted to the examination for this degree on producing certificates to the following effect:—1. Of having been engaged during five years in the practice of their profession. 2. Of having taken the degree of Bachelor of Medicine in this University.

Candidates who have not taken a degree in Arts, or passed the matriculation examination in this University, will be required to translate a portion of Celsus *de Re Medicâ*.

*Examinations in* 1874-75.—The following are the dates at which the several examinations for the year 1874-75 will commence:—Matriculation: Monday, January 12, and Monday, June 29, 1874; and Monday, January 11, 1875. Bachelor of Medicine: Preliminary Scientific, Monday, July 20; first M.B., Monday, July 27; second M.B., Monday, November 2. Bachelor of Surgery: Tuesday, November 24. Master in Surgery: Monday, November 23. Doctor of Medicine: Monday, November 23.

## UNIVERSITY OF DURHAM.

*For Registration.*—No one shall be held to be a student in Medicine who has not been registered in a register kept for that purpose. No one shall be so registered unless he has passed one of the preliminary examinations recommended by the General Medical Council. Every registered student shall receive from the Registrar a certificate of his registration, for which he shall pay the sum of five shillings. The registration examination shall be directed to the rudiments of Religion, Literature and Science, and shall be conducted by two or more examiners nominated by the Warden. The registration examination shall be held twice a year—viz., shortly before the winter session, and shortly before the summer session, of the College of Medicine, Newcastle-upon-Tyne. The registration examination will begin at Durham on Tuesday, September 15, 1874, and on April 13 and September 14, 1875, at 9 a.m. each day. Applications to be made to Arthur Beanlands, Esq., Durham, at least one month before the day of examination, to whom also each candidate must, at the same time, send the examination fee, £1, and a certificate of character, and specify the optional subject in which he wishes to be examined.

*Subjects of Examination for September* 15, 1874.—Necessary Subjects:—The History contained in the Acts of the Apostles; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I. and II.; Latin Grammar, with Virgil, Æneid, Lib. I. and II.; and one of the following subjects:—Greek Grammar, with Xenophon's Memorabilia; French Grammar, with Voltaire's Charles XII.; German Grammar, with Goethe's Dichtung und Wahrheit, Book I.; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics.

*Subjects of Examination for April* 13 *and September* 14, 1875.—Necessary Subjects:—The History contained in the Acts of the Apostles; English Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I. and II.; Latin Grammar, with—in April, Cæsar, De Bello Gallico, Lib. I. and II.; in September, Virgil, Ænid, Lib. I. and II.; and one of the following subjects:—Greek Grammar, with Xenophon's Memorabilia; French Grammar, with Voltaire's Charles XII.; German Grammar, with Goethe's Dichtung und Wahrheit, Book I. Elementary Questions in Mechanics, Hydrostatics, and Pneumatics. The following examinations are also accepted as qualifications for registration:—1. Durham senior examination of persons not Members of the University. For this, candidates are required to satisfy the examiners in Latin, Algebra (including Simple Equations), Euclid (Books I. and II.); and one of the four following subjects:—(1) Greek, (2) French, (3) German, (4) Mechanics, Hydrostatics, and Pneumatics. 2. Durham examinations for students in Arts in their first year.

The next senior examinations of persons not Members of the University will commence at Durham, on Monday, June 8, 1874, at two o'clock.

*For Licences and Degrees.*—Candidates for the Degrees of M.C., M.B., and M.D., in the University of Durham, are required to reside for three terms, as students in Arts, at the University, either in Durham or in Newcastle.

*For the Licence in Surgery.*—The regulations are the same as those for the licence in Medicine, except that the final examination is directed more particularly to Surgery, and may or may not be passed at the same time as the final examination for the licence in Medicine.

*For the Licence in Medicine.*—A candidate must produce certificates of registration as a student in Medicine, of having, after registration, spent four years in medical study at one or more of the schools recognised by the licensing bodies named in Schedule (A) of the Medical Act, 1858, one of the said four years being spent at the University College of Medicine, Newcastle-on-Tyne, of good moral conduct, and of having attained the age of 21 years. There are two examinations; one after the second winter session, the other after the fourth winter session, of medical study. The first is directed to Anatomy, Physiology, and Chemistry; the second to the other branches of medical education, and more particularly to the Practice of Medicine.

*For the Degree of Master in Surgery.*—A candidate must be a Licentiate in Surgery, and also a Licentiate in Medicine, of the University, and of the standing of eighteen terms (six years) at least from the date of his registration at Durham, and of three terms at least from the date of his admission to the licence in Surgery. He must be a Bachelor of Arts, or have passed the final examination for B.A., or one equivalent thereto, and must have kept one year's residence in Arts, either at Durham in the University, or at Newcastle-upon-Tyne in the Durham University College of Medicine. The examination for this degree is directed chiefly to the Practice of Surgery.

*For the Degree of Bachelor of Medicine.*—A candidate must be of the standing of one year at least as a Licentiate in Medicine, and of six years at least from the date of his matriculation. He must either be a Bachelor of Arts or have kept one year's residence in Arts, either at Durham in the University, or at Newcastle-upon-Tyne in the Durham University College of Medicine, and have passed the final examination for the degree of B.A., or an equivalent thereto. The examination for this degree is directed chiefly to the Practice of Medicine.

*For the Degree of Doctor in Medicine.*—A candidate must be of the standing of one year at least as a Bachelor of Medicine of the University of Durham, and of the standing of seven years from the date of his matriculation at Durham, and must perform such exercises as the Warden and Senate require.

The examinations for the licences and degrees in Medicine and Surgery are conducted in Newcastle. Those for the licences: 1. By printed papers of questions. 2. Practically in Anatomy, Physiology, Chemistry, Materia Medica, Pharmacy, Surgery, Medicine, Midwifery, and Medical Jurisprudence. 3. *Vivâ voce* on all the subjects. The examinations are held, except in special cases, yearly in the month of June at the close of the Easter Term, and are open to Members of the University. The next examination will begin on Monday, June 7, 1875, at 9 a.m. The licences and degrees are conferred in Convocation at Durham. The examiners are appointed yearly by the Warden of the University, and approved by Convocation.

*Expenses at Durham.*—The annual average cost of residence at University College may be estimated at £80 to £85; at Bishop Hatfield's Hall, at £65 to £70. Students may also, with the consent of the authorities, reside in a private house or lodging (approved by the authorities) without becoming members of any college or hall. The University fees payable by such students will amount to about £20 per annum.

Fees for Examination and Degrees: For senior middle class examination, £1; for examination at the end of first year, £1; for registration examination, £1; for registration, 5s.; for a certificate in Chemistry, 10s.; for each public examination in Medicine or in Surgery, £1; for a licence in Medicine, £3; for

a licence in Surgery, £3; for a degree of Master in Surgery, £6; for a degree of Bachelor in Medicine, £6; for a degree of Doctor in Medicine, £6.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

BY-LAWS RELATING TO MEMBERS.

1. The Members of the College, present and future, shall be alone eligible to the Fellowship. They shall have the use of the Library and Museum, subject to the regulations relating thereto, and shall be admitted to all lectures, and shall enjoy such further privileges as may from time to time be defined by the by-laws; but they shall not be entitled to any share in the government, or to attend or vote at general meetings of the Corporation. 2. All persons who have been admitted, before February 16, 1859, Licentiates of the College, shall be entitled to be admitted Members of the College, provided that they have, since their admission as Licentiates, obeyed the by-laws, and do accept such Membership, and engage henceforth to obey the by-laws of the College. 3. Any extra-Licentiate who shall have produced testimonials as to character satisfactory to the Censors, and shall have assured the said Censors that he is not engaged in the practice of pharmacy, and who shall comply with such other regulations as are required by the by-laws of the said Corporation, may be proposed to the College to be admitted a Member of the College. 4. Any person who shall have satisfied the College touching his acquirements in general Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the by-laws and regulations of the College, may be proposed to the College to be admitted a Member of the College. 5. Every candidate for the Membership of the College, under the last by-law, who shall have commenced his professional studies after September, 1861, shall satisfy the Censors' Board that previously to the commencement of his professional studies he has obtained a degree in Arts from some university of the United Kingdom or of the colonies, or from some other university specially recognised by the Medical Council; or that he has passed examinations equivalent to those required for a degree in Arts. All other candidates for Membership shall be examined on the subjects of general education by the President and Censors of the College. 6. Every candidate for Membership shall furnish proof that he has attained the age of twenty-five years. 7. Every candidate shall produce a testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a Member of the College. 8. Every candidate (*except such as shall be admissible under the provisions of Sections* 15 *and* 16) shall produce proof of his having been engaged in professional studies during a period of five years, of which four years at least shall have been passed at a medical school or schools recognised by the College. 9. Every candidate (*except such as shall be admissible under the provisions of Sections* 15 *and* 16) shall produce evidence, satisfactory to the Censors' Board, of his having studied the following subjects:—Anatomy (with Dissections), during two winter sessions(a); Physiology, during two winter sessions; Chemistry, during six months; Practical Chemistry, during three months; Materia Medica, during three months; Practical Pharmacy, during three months (by Practical Pharmacy is meant instruction in the laboratory of a registered medical practitioner, or of a member of the Pharmaceutical Society of Great Britain, or of a public hospital or dispensary recognised by the College); Botany, during three months (this course of lectures may be attended prior to the commencement of professional studies, and any candidate producing satisfactory evidence that Botany formed one of the subjects of his preliminary examination will be exempt from attendance on this course); Morbid Anatomy, during six months (this includes attendance and instruction in the post-mortem-room during the period of clinical study); Principles and Practice of Medicine, during two winter sessions (it is required that the principles of public health should be comprised in this course of lectures, or in the course of lectures on Forensic Medicine: the attendance on these lectures must not commence earlier than the second winter session at a recognised medical school); Principles and Practice of Surgery, during *two winter sessions* (the attendance on these lectures must not commence earlier than the second winter session at a recognised medical school); Clinical Medicine, during *three winter sessions and three summer sessions*(b) (the attendance on these lectures must not commence earlier then the second winter session at a recognised medical school); Clinical Surgery, during *two winter sessions and two summer sessions* (the attendance on these lectures must not commence earlier than the second winter session at a recognised medical school: by Clinical Medicine and Clinical Surgery are meant special study and instruction at the bedside, with lectures on cases); Midwifery and the Diseases peculiar to Women, during three months (certificates must also be produced of attendance on not less than twenty labours, and of instruction and proficiency in vaccination); Forensic Medicine, during three months; of having attended diligently during three winter sessions and three summer sessions the Medical Practice, *and during three winter sessions and two summer sessions the Surgical Practice*, of a hospital containing at least 100 beds; of having been engaged during six months in the clinical study of Diseases peculiar to Women; and of having served the office of clinical clerk in the medical wards during at least six months. [The requirements printed in italics apply to candidates who commenced their professional education in the United Kingdom on or after October 1, 1867; and to candidates who commenced their professional education at a recognised foreign or colonial school on or after October 1, 1868.] 10. Every candidate who has prosecuted his studies abroad, whether in part or to the full extent required by the preceding by-law (*except such as shall be admissible under the provisions of Section* 16), shall, nevertheless, bring proof of his having attended during at least twelve months the medical practice of a hospital in the United Kingdom containing at least 100 beds. 11. If the Censors' Board doubt the sufficiency of the certificates and testimonials produced by any candidate, or his fitness, in any respect, for admission to examination, they may submit the case to a general meeting of the Fellows. 12. No candidate shall be admitted to examination who is engaged in trade; or who dispenses medicine, or makes any engagement with a chemist, or any other person, for the supply of medicines; or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues. 13. No candidate shall be admitted to examination who refuses to make known, when required by the President and Censors, the nature and composition of any remedy he uses. 14. Every candidate (except in cases specially exempted under Sections 15 and 16) shall give proof of his acquirements by written answers to questions placed before him, and shall be examined *vivâ voce* at three separate examinations, and shall be approved by the President and Censors, or by the major part of them. 15. Any candidate who has already obtained the degree of Doctor or Bachelor of Medicine at a university in the United Kingdom, wherein the courses of study and the examinations to be undergone by the students previously to graduation shall have been adjudged by the Censors' Board to be entirely satisfactory, shall be exempt (if the Censors shall think fit) from all or any parts of the examinations hereinbefore described, except such as relate to the third or pass examination; the nature and extent of which examination shall, in the case of each candidate, be determined by the Censors' Board. Every candidate for the Membership will, however, be required to translate into English a passage from a Latin author, and he will have the opportunity of showing a knowledge of Greek, or of one or more of the modern European languages. 16. If any candidate who has attained the age of forty years shall produce testimonials not merely satisfactory as to his moral character and conduct and his general and professional acquirements, but further showing that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a medical practitioner, the Censors' Board, having well weighed and considered these testimonials, may, if they see fit, submit them to the Fellows at a general meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the candidate shall be admitted to examination, which shall, in every such case, be as full and complete as the Censors may deem sufficient. 17. Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a course of study and an examination satisfactory to the College, will be exempt from re-examination on the subjects of the

(a) The winter session comprises a period of six months.

(b) The winter session comprises a period of six months, and the summer session a period of three months.

primary examination.(c) 18. Any candidate who shall have obtained a degree in Surgery, at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and the Principles and Practice of Surgery. 19. Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery.

The fee to be paid for admission as a Member of the College shall be thirty guineas.

BY-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE MEMBERSHIP.

Every candidate for the Membership of the College (except such as shall be admissible under the provisions of Sections 15 and 16 of the by-laws) will be required to pass the following examinations:—

The first examination, on Anatomy and Physiology, will be conducted on successive days, as follows:—On Monday: Evening, from 7 to 10, by written questions. On Tuesday: Evening, commencing at 7 o'clock, *vivâ voce*, on dissections and preparations.

The second examination will be conducted as follows:—On Monday: Evening, from 7 to 10, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. On Tuesday: Morning—The candidate's practical knowledge will be tested, either at the College or in the surgical wards of a hospital; Afternoon, from 1 to 4, on Materia Medica, and on Chemistry in its applications to Pathology, Pharmacy, and Toxicology. *This Examination will be conducted by written questions and partly in a practical manner.* Evening, commencing at 7 o'clock, by written questions on Midwifery and the Diseases peculiar to Women. On Thursday, commencing at 7 p.m., examination *vivâ voce*.

The third or pass examination will be conducted on successive days, as follows:—On Thursday, from 2 to 6, by written questions on Medical Anatomy, and on the Principles of Medicine. On Friday, from 2 to 6, by written questions on the Practice of Medicine, including the Principles of Public Health and on Psychological Medicine. On Saturday or Monday, the candidate's practical knowledge will be tested, either at the College or in the medical wards of a hospital. On Tuesday, examination *vivâ voce*. On Wednesday, examination *vivâ voce*.

1874.—Third or Pass Examination:—On Thursday, October 22.

1875.—Thursdays, January 21, April 21, July 22, October 21. The first and second examinations are generally held at the commencement of the same months.

Candidates will not be admitted to the first examination until after the termination of the second winter session of professional study at a recognised medical school, nor to the second examination until after the termination of four years of professional study, nor to the third or pass examination until after the completion of the required course of professional study.

Every candidate must give fourteen days' notice, in writing, to the Registrar of the College, of his intention to present himself for examination, at the same time transmitting the following certificates:—*For the Primary Examination.*—Evidence of having passed an Arts examination; and, in the case of those who shall have commenced professional studies after 1861, evidence of having previously obtained a degree in Arts from some university of the United Kingdom or of the colonies, or from some other university specially recognised by the Medical Council, or that he has passed examinations equivalent to those required for a degree in Arts; of having been duly registered as a medical student; and of having completed the second winter session of professional study at a recognised medical school; all other candidates for Membership shall be examined on the subjects of general education by the President and Censors of the College. *For the Second Examination.*—Evidence of having completed four years of professional study; of having attained the age of twenty-one years; of instruction and proficiency in the practice of vaccination; and of having attended not less than twenty labours, and of having discharged the duties of clinical clerk, and performed the duties of dresser, for periods of not less than three months. *For the Pass Examination.*—Proof of having attained the age of twenty-five years; a testimonial from a Fellow or Member of the College; evidence of having completed the required course of professional study.

(c) *See* Regulations relating to the examinations.

BY-LAWS RELATING TO LICENTIATES.

Every candidate for the College licence, who shall commence his professional study on or after October 1, 1874, will be required to produce satisfactory evidence of having completed the course of study in accordance with the by-laws and regulations of the College, and to pass the professional examinations conducted by the Conjoint Examining Board. (These by-laws will be issued on October 1, 1874.)

The College will, under its Charter, grant licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery (which licences are not to extend to make the Licentiates Members of the Corporation), to persons who shall conform to the following by-laws:—

Every candidate for the College licence (except when otherwise provided by the by-laws) is required to produce satisfactory evidence to the following effect:—1. Of having attained the age of twenty-one years. 2. Of moral character. 3. Of having passed, before the commencement of professional study, an examination in the subjects of general education recognised by the College. 4. Of having been registered as a medical student in the manner prescribed by the General Medical Council. ["After October, 1870, every candidate (not exempted from registration) is required to have been registered at least four years previously."] 5. Of having been engaged in professional studies during four years, of which at least three winter sessions and two summer sessions shall have been passed at a recognised medical school or schools, and one winter session and two summer sessions in one or other of the following ways:—*a.* Attending the practice of a hospital or other institution recognised by the College for that purpose. *b.* Receiving instruction as the pupil of a legally qualified practitioner holding any public appointment which affords opportunities, satisfactory to the examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery. *c.* Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Professional studies commenced *before* the candidate shall have passed an examination in the subjects of general education will not be recognised by the College. 6. *Of having attended, during three winter sessions and two summer sessions, the medical and surgical practice at a recognised hospital or hospitals*, of having discharged the duties of clinical clerk at a recognised hospital for a period of not less than three months; of having performed the duties of dresser at a recognised hospital for a period of not less than three months; and of having been engaged during six months in the clinical study of Diseases peculiar to Women. 7. Of having studied the following subjects:—Anatomy (with dissections) during two winter sessions;(d) Physiology during two winter sessions; Chemistry during six months; Practical Chemistry during three months; Materia Medica during three months; Practical Pharmacy during three months (by Practical Pharmacy is meant instruction in the laboratory of a registered medical practitioner, or of a member of the Pharmaceutical Society of Great Britain, or of a public hospital or dispensary recognised by the College); Botany during three months (this course of lectures may be attended prior to the commencement of professional studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his preliminary examination will be exempt from attendance on this course); Morbid Anatomy during six months (this includes attendance and instruction in the post-mortem room during the period of clinical study); Principles and Practice of Medicine during two winter sessions (it is required that the principles of public health should be comprised in this course of lectures, or in the course of lectures on Forensic Medicine: the attendance on these lectures must not commence earlier than the second winter session at a recognised medical school); Principles and Practice of Surgery, during *two winter sessions*(e) (the attendance on these lectures must not commence earlier than the second winter session at a recognised medical school);

(d) The winter session comprises a period of six months, and the summer session a period of three months.

(e) The requirements printed in italics apply to candidates who commenced their professional education in the United Kingdom on or after October 1, 1867; and to candidates who commenced their professional education at a recognised foreign or colonial school on or after October 1, 1868.

Clinical Medicine, during *two winter sessions and two summer sessions* (e) (the attendance on these lectures must not commence until after the first winter session at a recognised medical school); Clinical Surgery, during *two winter sessions and two summer sessions* (e) (the attendance on these lectures must not commence until after the first winter session at a recognised medical school: by Clinical Medicine and Clinical Surgery are meant special study and instruction at the bedside, with lectures on cases); Midwifery and the Diseases peculiar to Women, during three months (certificates must also be produced of attendance on not less than twenty labours, and of instruction and proficiency in vaccination); Forensic Medicine, during three months. 8. Of having passed the professional examinations.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a course of study and an examination satisfactory to the College, shall be exempt from re-examination on the subjects of the primary examination. (f) Any candidate who shall have obtained a degree in Medicine at a university recognised by the College, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on the subjects of the primary examination. Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery. Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery. Any candidate, being a "registered medical practitioner," whose qualification or qualifications shall have been obtained before the first day of January, 1861, having been with the consent of the College admitted a candidate for the licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the professional examinations as his qualifications may seem to the examiners to render in his case unnecessary.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

### BY-LAWS AND REGULATIONS RELATING TO THE EXAMINATION FOR THE LICENCE.

Every candidate for the College licence, before he is admitted to examination, will be required to sign a declaration, stating that he has not been rejected within three months by any of the Examining Boards included in Schedule (A) to the Medical Act.

The first examination, on Anatomy and Physiology, will be conducted on successive days as follows;—On the first day: Evening, from 7 to 10, by written questions. On the second day: Evening, commencing at 7 o'clock, *vivâ voce*, on dissections and preparations. The second, or pass examination, will be conducted on successive days, as follows:—On the first day: Evening, from 7 to 10, by written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. On the second day: Morning—The candidate's practical knowledge will be tested, either at the College or in the surgical wards of a hospital. Afternoon, from 1 to 4, on Materia Medica, and on Chemistry in its applications to Pathology, Pharmacy, and Toxicology. (g) This examination will be conducted partly by written questions and partly in a practical manner. Evening, commencing at 7 o'clock, by written questions on Midwifery and the Diseases peculiar to Women. On the third day: Evening, from 7 to 10, by written questions on Medical Anatomy, and on the Principles and Practice of Medicine, including the Principles of Public Health. On the fourth day: Morning—The candidate's practical knowledge will be tested, either at the College or in the medical wards of a hospital. Evening, commencing at 7 o'clock, *vivâ voce*, on the Principles and Practice of Medicine, Surgery, and Midwifery.

Candidates will not be admitted to the first examination until after the termination of the second winter session of professional study at a recognised medical school; nor to the second, or pass examination, until after the termination of four years of professional study.

The College does not admit to the pass examination any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least four years.

Any candidate who shall be rejected at the first examination, will not be readmitted to examination until after the lapse of three months, and will be required to produce a certificate of the performance of dissections, or other professional study satisfactory to the examiners, during that time.

Any candidate who shall be rejected at the second or pass examination, will not be readmitted to examination until after the lapse of six months, and will be required to produce a certificate of attendance on the practice of a recognised hospital, and also of attendance on clinical lectures, or other professional study satisfactory to the examiners, during that time.

Every candidate intending to present himself for examination is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following certificates:—For the First Examination: Evidence of having passed an Arts examination, of having been duly registered as a medical student, and of having completed the second winter session of professional study at a recognised medical school. For the Second, or Pass Examination: Evidence of having completed four years of professional study, of having attained the age of twenty-one years, of instruction and proficiency in the practice of vaccination, of having attended not less than twenty labours, and of having discharged the duties of clinical clerk, and performed the duties of dresser, for periods of not less than three months. A testimonial of moral character is required of every candidate.

Blank forms of the required certificates of attendance on hospital practice and on lectures may be obtained on application at the College. (h)

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a course of study and an examination satisfactory to the College, will be exempt from re-examination on the subjects of the first examination.

Any candidate who shall have obtained a degree in Medicine at a university recognised by the College, after a course of study and an examination satisfactory to the College, shall be exempt from re-examination on the subjects of the primary examination.

Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery.

Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and on the Principles and Practice of Surgery.

Any "registered medical practitioner" whose qualification or qualifications shall have been obtained before the first day of January, 1861, having been, with the consent of the College, admitted a candidate for the licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the professional examinations as his qualifications may seem to the examiners to render in his case unnecessary. (i)

The fee for the College licence is fifteen guineas, (k) of which

(e) *See* footnote (e) on previous page.

(f) *See* Regulations relating to the examinations.

(g) Candidates who shall have passed the first examination for the licence at this College before October 1, 1868, are exempted from re-examination on Materia Medica, and on Chemistry in its application to Pharmacy.

Examinations of candidates for the College licence will take place, commencing as follows:—For the first examination on the first Mondays in the months of October and December, 1874, and February, April, July, October, and December, 1875; and for the second, or pass examination, on the second Mondays in the same months.

(h) Hours of attendance from 12 noon to 6 p.m.; Saturdays, from 12 noon to 2 p.m.

(i) Forms of application may be obtained of the Registrar of the College.

(k) The fee must be paid three days prior to the day on which the examination commences.

five guineas are to be paid on admission to the first examination, which fee will not be returned to any candidate rejected at this examination, but will be allowed in the fee for the licence, and he will be admitted to one subsequent first examination without the payment of an additional fee.

Any candidate who shall be rejected at the second or pass examination will have the fee paid on admission to this examination returned to him, less three guineas.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### REGULATIONS RELATING TO THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF FELLOW.

SECTION I.—*Preliminary Examination.*—I. Candidates will be required to produce one or other of the following certificates or *testamurs*, viz.:—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised, viz.:—Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrew's; Calcutta, Madras, and Bombay; Canada—M'Gill College, Montreal, and Queen's College, Kingston. A certificate or *testamur* of graduation in Arts at a Foreign University, on the special recommendation of the Court of Examiners, approved by the Council. 2. Of having passed such examinations in Arts as shall from time to time be required for graduation in Medicine by a University recognised for this purpose. The following are the Universities at present recognised, viz.:—Oxford, Cambridge, Dublin, London, and Durham. (N.B. In the case of the University of London, the certificate of having passed the Matriculation examination must contain evidence that the candidate passed in Greek and in French or German, in addition to the several compulsory subjects comprised in the examination.) II. Candidates who shall not be able to produce one or other of the foregoing certificates will be required to pass an examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of the Council of the College.

The following are the subjects of the examination referred to in the foregoing paragraph for December, 1874, and until further notice, viz.:—

Part I. Compulsory Subjects.—1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition; such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of vulgar fractions, and of decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History—that is, the succession of the Sovereigns and the leading events of each reign. 8. Mathematics. Euclid, Books I. and II. or the subjects thereof. Algebra to simple equations inclusive. 9. Translation of a passage from the second book of Cæsar's Commentaries "De Bello Gallico." 10. Translation of a passage from the first book of the Anabasis of Xenophon. 11. Translation of a passage from X. B. Saintine's "Picciola"; or, at the option of the candidate, translation of a passage from Schiller's "Wilhelm Tell."

Part II. Optional Subjects.—Papers will also be set on the following subjects; and each candidate will be required to offer himself for examination on one subject, at his option:—1. Translation of a passage in French or German, as the case may be, from the before-mentioned works. Besides these translations into English, the candidate will be required to answer questions on the grammar of each subject, whether compulsory or selected. 2. Mechanics. The questions will be chiefly of an elementary character. 3. Chemistry. The questions will be on the elementary facts of Chemistry. 4. Botany and Zoology. The questions will be on the classification of plants and animals. The quality of the handwriting and spelling will be taken into account. N.B. Each candidate (who has not already paid the amount) is required to pay a fee of £2 on the morning of the first day of the examination, prior to his admission thereto. The next examination will be held on or about the third Tuesday or Wednesday in December. The exact dates of the examinations will be duly advertised when fixed in the journals; and candidates are required to send in the prescribed forms of application not less than three weeks before the commencement of the examination.

Note.—*Candidates who passed prior to the 1st of January*, 1870, *an examination recognised as equivalent to the preliminary examination for the diploma of Member, will be required in order to qualify for the Fellowship to pass in Algebra, Greek, and French or German, included in Part I., and in one, at their option, of the four subjects included in Part II., of the foregoing examination, and those who passed, subsequently to the 1st of January*, 1870, *an examination equivalent to that required for the Membership, will have to pass in all the aforesaid subjects excepting Algebra, when the certificate shall contain evidence that this last subject was included in the first-named examination.*

*Special Notice.*—In the case of candidates, natives of India, the certificates of having passed the matriculation examinations of the Universities of Calcutta, Madras, and Bombay, will be recognised as equivalent to the foregoing preliminary examination, provided that they contain evidence that, in addition to the compulsory subjects thereof, the candidate passed in Latin, and, in lieu of Greek, in one of the Eastern languages comprised in the lists of subjects issued from time to time by the respective universities.

SECTION II.—*Professional Education.*—I. Except in the cases and instances hereinafter provided for to the contrary, every candidate for admission to the first or anatomical and physiological examination for the Fellowship is required to produce the following certificates, viz.:—1. Of having passed the preliminary examination appointed by the Council, or such other examination as the Council may from time to time determine to be equivalent thereto. 2. Of having studied Practical Pharmacy during three months. 3. Of having attended lectures on Anatomy during two winter sessions at a recognised school or schools. 4. Of having performed dissections at a recognised school or schools during three winter sessions. 5. Of having attended lectures on General Anatomy and Physiology during one winter session at a recognised school. 6. Of having attended a practical course of General Anatomy and Physiology during another winter or a summer session, consisting of not less than thirty meetings of the class, at a recognised school. *Note A.*—By the practical course referred to in Clause 6, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not hereby intended that the learners shall perform vivisections. 7. Of having attended one course of lectures on Comparative Anatomy, one course of lectures on Chemistry, and a three months' course of Practical Chemistry (with manipulations) in its application to medical study, at a recognised school or schools. *Note B.*—The course of lectures on Chemistry included in Clause 7 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination. *Note C.*—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

II. Except in the cases and instances hereinafter provided for to the contrary, every candidate before his admission to the second professional examination is required to produce the following certificates, viz.:—1. Of being twenty-five years of age. 2. Of having been engaged for six years in the acquirement of professional knowledge in hospitals or schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose; or if the candidate be already a Member of the College, he shall produce certificates of having been engaged for two years in the acquirement of professional knowledge in recognised hospitals and schools, in addition to the certificates required for the diploma of Member. 3. Of having attended lectures on Surgery during one winter session at a recognised school. 4. Of having attended a course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding clause No. 3, at a recognised school. *Note D.*—The course of Practical Surgery referred to in Clause 4 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to Surgery, on the living person, or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effect of diseases and accidents on the living person or on the dead body; the use of surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy and otherwise. 5. Of having attended, at one or more recognised school or schools, one course of lectures on each of the following subjects, viz.:—Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction, and a cer-

tificate of having personally conducted not less than ten labours), Pathological Anatomy during not less than three months. *Note E.*—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course. 6. Of having performed operations on the dead body under the superintendence of a recognised teacher. 7. Of instruction and proficiency in the practice of vaccination. *Note F.*—In the case of candidates who commenced their professional education on or after October 1, 1868, the certificate of instruction in vaccination will only be received from recognised vaccine stations, or from recognised vaccine departments in medical schools or hospitals, or other public institutions, where the appointed teacher of vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place. 8. Of having attended the surgical practice of a recognised hospital or hospitals during four winter and four summer sessions, and the medical practice of a recognised hospital or hospitals during one winter and one summer session. 9. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months. *Note G.*—It is intended that the candidate should receive the instruction required by Clause 9 at an early period of his attendance at the hospital. 10. Of having attended clinical lectures on Surgery during two winter and two summer sessions, and clinical lectures on Medicine during one winter and one summer session at one or more recognised hospital or hospitals. 11. Of having attended, during three winter and two summer sessions, demonstrations in the post-mortem rooms of a recognised hospital. 12. Of having served the office of House-Surgeon or Dresser, for not less than six months, in a recognised hospital.

Notice.—*The alterations in the Regulations, which are applicable to candidates who commenced their professional studies on or after October* 1, 1870, *are contained in Clauses* 3, 5, *and* 6, *paragraph I., in Clauses* 3, 4, 5, 9, 10, *and* 11, *paragraph II., and in notes A, B, C, D, E, and G, paragraphs I. and II. of Section II.*

III. In the case of a candidate who shall have taken by examination the degree of Bachelor or Master of Arts in any university in the United Kingdom recognised by the Council for this purpose, it shall be sufficient for him to produce a certificate or certificates that he has been engaged for five years (instead of six years) in the acquirement of professional knowledge in hospitals or schools of Anatomy, Surgery, and Medicine recognised by the Council of the College for that purpose.

IV. Any Member of the College shall, after the expiration of eight years from the date of his diploma, be entitled to be admitted to the professional examination for the Fellowship upon the production of a certificate, signed by three Fellows, that he has been for eight years in the practice of the profession of Surgery, and that he is a fit and proper person to be admitted a Fellow if upon examination he shall be found qualified.

SECTION III.—*Professional Examinations.*—1. The examinations are held twice in the year, in the months of May and November, and at such other times as the Council may appoint. 2. The examinations occupy not less than two days, either successive or at such intervals as the Court of Examiners may appoint. 3. The first examination, on Anatomy and Physiology, is partly written and partly *vivâ voce* on the recently dissected subject and on prepared parts of the human body. The second examination, on Pathology, Therapeutics, and the Principles and Practice of Surgery and Medicine,(a) is partly written, partly *vivâ voce*, and partly on the practical use of surgical apparatus, and includes the examination of patients, and operations on the dead body. 4. Prior to his admission to the first or anatomical and physiological examination, the candidate is required to pay—*a.* A fee of five guineas, to be allowed on the fee for the diploma of Fellow, but to be retained in case of rejection. 5. Prior to his admission to the second professional examination, the candidate is required to pay—*a.*(b) A fee of five guineas (if a Member) over and above all charges for stamps, to be retained in case of rejection. *b.*(b) A fee of twenty-five guineas (if not a Member) over and above all charges for stamps, of which five guineas will be retained in case of rejection. 6. A candidate whose qualifications shall be found insufficient on his anatomical and physiological examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of six months from the date of his reference. 7. A candidate whose qualifications shall be found insufficient upon his pathological and surgical examination shall be referred, and shall not be allowed to present himself for re-examination until after the expiration of one year from the date of his reference, unless the Court of Examiners shall otherwise determine.

(a) Candidates can claim exemption from examination in Medicine under the following conditions, viz. :—1. The production by the candidate of a degree, diploma, or licence in Medicine entitling him to register under the Medical Act of 1858, or a degree, diploma, or licence in Medicine of a colonial or foreign university approved by the Council of the College. 2. A declaration by the candidate, prior to his admission to the final examination for the Fellowship, that it is his intention to obtain either of the medical qualifications mentioned in the foregoing paragraph, in which case the diploma of the College will not be issued to him until he shall produce either the said medical qualification or proof of having passed the several examinations entitling him to receive the same. N.B.—A candidate who has passed an examination in Medicine for the Membership will not be required to pass any further examination in Medicine for the Fellowship.

REGULATIONS RESPECTING THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THIS COLLEGE.

I. *Preliminary General Education and Examination.*—(1.) Candidates who commenced their professional education on or after January 1, 1861, will be required to produce one or other of the following certificates :—1. Of graduation in Arts at a university recognised for this purpose. The following are the universities at present recognised, viz. :—Oxford, Cambridge, Dublin, London, Durham, Queen's University in Ireland, Edinburgh, Glasgow, Aberdeen, and St. Andrews, Calcutta, Madras, and Bombay; Canada—M'Gill College, Montreal, and Queen's College, Kingston. 2. Of having passed an examination for matriculation, or such other examination as shall, in either case, from time to time be sanctioned by the Council of this College, at a university in the United Kingdom, or at a colonial or foreign university recognised by the Council of this College. The following are the examinations at present recognised under this Clause (No. 2), viz. :—Oxford.—Responsions or Moderations. Middle-Class Examinations, Senior, the certificates to include Latin and Mathematics. Cambridge. —Previous Examination. Middle-Class Examinations, Senior, the certificates to include Latin and Mathematics. Dublin.—Entrance Examination. London.—Matriculation Examination. Durham.—Examination of students in Arts in their second and first years. Middle-Class Examinations, Senior, the certificates to include Latin and Mathematics. Registration Examination for medical students. Queen's University in Ireland.—Two years' Arts course for diploma of Licentiate in Arts. Preliminary Examinations at end of B.A. course. Middle-Class Examinations, the certificates to include Latin and Mathematics. Matriculation Examinations. Edinburgh, Aberdeen, Glasgow, and St. Andrews.—Preliminary or Extra Professional Examinations for graduation in Medicine. Calcutta, Madras, and Bombay.—Matriculation Examinations. Canada —Queen's College, Kingston.—Matriculation Examination, Preliminary Examination of Students in Medicine; M'Gill College, Montreal; University College, Toronto; Victoria College, Toronto; University of Laval, Quebec.—Matriculation Examinations. Nova Scotia — King's College, Windsor.—Matriculation Examination. Responsions. New Brunswick; Fredericton.—Matriculation Examination. Dalhousie College and University, Halifax.—Matriculation Examination. Australia—Melbourne.—Matriculation Examination, with a certificate that the student has passed an Examination in Latin. Sydney; Matriculation Examination. New York—Bellevue Hospital Medical College.—Matriculation Examination. 3. Of having passed the preliminary examination for the Fellowship of this College. 4. Of having passed the preliminary examinations of the Royal Colleges of Surgeons of Ireland and of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow. 5. Of having passed the Examination in Arts of the Society of Apothecaries of London, or of the Apothecaries' Hall of Ireland. 6. Of having passed the first-class examination of the Royal College of Preceptors. 7. Of having obtained the *testamur* of the Codrington College, Barbadoes. 8. Of having obtained the degree of Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the student has been examined in Latin and Mathematics. 9. Of having passed

(b) The sum of £2 paid on the Preliminary Examination will be allowed against these amounts.

the voluntary examinations of Christ's College, Canterbury, New Zealand, the certificate to include all the subjects required from time to time in the preliminary examination of the College. (2.) Candidates who shall not be able to produce one or other of the foregoing certificates will be required to pass an examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of this College.

The following are the subjects of the examination referred to in the foregoing paragraph for December, 1874, and until further notice, viz.: Part (1.) — Compulsory subjects:—1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition; such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of vulgar fractions, and of decimals. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History, that is, the succession of the sovereigns and the leading events of each reign. 8. Mathematics: Euclid, Books I. and II., or the subjects thereof; Algebra to simple equations inclusive. 9. Translation of a passage from the second book of Cæsar's Commentaries "De Bello Gallico." Part (2.)—Optional subjects:—Papers will also be set on the following six subjects, and each candidate will be required to offer himself for examination on one subject at least, at his option; but no candidate will be allowed to offer himself for examination on more than four subjects:—1. Translation of a passage from the first book of the Anabasis of Xenophon. 2. Translation of a passage from X. B. Saintinc's "Picciola." 3. Translation of a passage from Schiller's "Wilhelm Tell." Besides these translations into English, the candidate will be required to answer questions on the grammar of each subject, whether compulsory or optional. 4. Mechanics. The questions will be chiefly of an elementary character. 5. Chemistry. The questions will be on the elementary facts of chemistry. 6. Botany and Zoology. The questions will be on the classification of plants and animals. The quality of the handwriting and the spelling will be taken into account. N.B.—Each candidate (who has not already paid the amount) is required to pay a fee of £2 on the morning of the first day of the examination prior to his admission thereto. The next examination will be held on or about the third Tuesday or Wednesday in December. The exact dates of the examination will be duly advertised when fixed in the medical journals. Candidates are required to send in the prescribed forms of application not less than three weeks before the commencement of the examination.

*Note.*—A candidate in order to qualify for the Fellowship is required, in addition to the subjects included in Part (1), to pass in Greek and in French or German, and in one at his option of the remaining subjects in Part (2).

II. *Professional Education.*—(1.) Professional studies prior to the date at which the candidate shall have passed an examination in general knowledge in conformity with the regulation in the preceding section are not recognised.

(2.) The following will be considered as the commencement of professional education:—1. Attendance on the practice of a hospital or other public institution recognised by this College for that purpose. 2. Instruction as the pupil of a legally qualified surgeon, holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on Lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College. *The commencement of professional study, otherwise than by attendance on lectures in recognised medical schools, or by attendance on the practice of recognised hospitals, will not be admitted until a certificate thereof shall be furnished to the Secretary for registration at the College, by the practitioner whose pupil the candidate shall have become, or by the medical superintendent of the hospital or other institution to the practice of which he shall have entered, and will, consequently, date only from the reception of such certificate by the Secretary; the certificate to be accompanied by proof of having passed the necessary preliminary examination in general knowledge.*

(3.) Candidates will be required to produce the following certificates, viz.: 1. Of being twenty-one years of age. 2. Of having been engaged, subsequently to the date of passing the preliminary examination, during four years, or during a period extending over not less than four winter and four summer sessions, in the acquirement of professional knowledge. 3. Of having attended lectures on Anatomy during two winter sessions. 4. Of having performed Dissections during not less than two winter sessions. 5. Of having attended lectures on General Anatomy and Physiology during one winter session. 6. Of having attended a practical course of General Anatomy and Physiology during another winter or a summer session, consisting of not less than thirty meetings of the class. *Note A.*—By the practical course referred to in Clause 6, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not hereby intended that the learners shall perform vivisections. 7. Of having attended lectures on Surgery during one winter session. 8. Of having attended a course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding Clause 7. *Note B.*—The course of Practical Surgery referred to in Clause 8 is intended to embrace instruction in which each pupil shall be exercised in practical details such as in the application of anatomical facts to Surgery, on the living person or on the dead body. The methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents, on the living person or on the dead body. The performance, where practicable, of the operations of Surgery on the dead body. The use of surgical apparatus. The examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy and otherwise. 9. Of having attended one course of lectures on each of the following subjects, viz.: Chemistry, Materia Medica, Medicine, Forensic Medicine; Midwifery (with practical instruction, and a certificate of having personally conducted not less than ten labours); Pathological Anatomy during not less than three months. *Note C.*—The course of lectures on Chemistry included in Clause 9 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination. 10. Of having studied Practical Pharmacy during three months. 11. Of having attended a three months course of Practical Chemistry (with manipulations), in its application to medical study. 12. Of instruction and proficiency in the practice of vaccination. *Note D.*—In the case of candidates who commenced their professional education on or after the 1st of October, 1868, the certificate of instruction in vaccination will only be received from recognised vaccine stations, or from recognised vaccine departments in medical schools or hospitals, or other public institutions, where the appointed teacher of vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (eight or ten on an average weekly) as may be found, after due inquiry, to be sufficient for this purpose at each place. *Note E.*—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course. 13. Of having attended, at a recognised hospital or hospitals, the practice of Surgery during three winter(c) and two summer(d) sessions. 14. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months. *Note F.*—It is intended that the candidate should receive the instruction required by Clause 14 at an early period of his attendance at the hospital. 15. Of having, subsequently to the first winter session of attendance on surgical hospital practice, attended, at a recognised hospital or hospitals, clinical lectures on Surgery during two winter and two summer sessions. 16. Of having been a dresser at a recognised hospital, or of having, subsequently to the completion of one year's professional education, taken charge of patients under the superintendence of a surgeon during not less than six months, at a hospital, general dispensary, or parochial or union infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery. 17. Of having attended during the whole period of attendance on surgical hospital practice (see Clause 13) demonstrations in the post-mortem rooms of a recognised

(c) The winter session comprises a period of six months, and, in England, commences on October 1, and terminates on March 31.

(d) The summer session comprises a period of three months, and, in England, commences on May 1, and terminates on July 31.

hospital. 18. Of having attended, at a recognised hospital or hospitals, the practiee of Medieine, and clinical lectures on Medieine, during one winter and one summer session.

Notiee.—*Clauses* 6, 8, 11, 14, *and* 17, *and Notes A, B, C, E, and F, together with the courses of lectures on Forensic Medicine and Pathological Anatomy mentioned in Clause* 9, *are applicable to candidates who commenced their professional education on or after the* 1*st of October*, 1870. N.B.—Blank forms of the required eertificates may be obtained on applieation to the Seeretary, and all neeessary eertificates will be retained at the College.

III.—1. Certificates will not be reeeived on more than one branch of science from one and the same leeturer; but anatomy and dissections will be considered as one branch of science.

2. Certificates will not be reeognised from any hospital in the United Kingdom unless the surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any school of anatomy and physiology or midwifery, unless the teachers in such school be members of some legally eonstituted College of Physicians or Surgeons in the United Kingdom; nor from any school of surgery, unless the teachers in such school be members of one of the legally eonstituted Colleges of Surgeons in the United Kingdom.

3. No metropolitan hospital will be reeognised by this College whieh contains less than 150, and no provincial or eolonial hospital which contains less than 100 patients.

4. The recognition of eolonial hospitals and schools is governed by the same regulations with respect to number of patients and to courses of lectures as apply to the reeognition of provineial hospitals and schools in England.

5. Certifieates of attendanee upon the practiee of a reeognised provineial or colonial hospital unconnected with, or not in eonvenient proximity to, a reeognised medical school, will not be reeeived for more than one winter and one summer session of the hospital attendanee required by the regulations of this College; and in such eases elinical lectures will not be neeessary, but a eertificate of having acted as a dresser for a period of at least six months will be required.

6. Certificates will not be received from eandidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on leetures and hospital practiee within fifteen days from the eommencement of the session; nor from eandidates who have studied in the provincial schools in England, unless their names shall be duly returned from their respective sehools. N.B.—At their first registration in October, eandidates will be required to produee a certifieate of having passed one or other of the preliminary examinations in general knowledge reeognised by this College.

7. Those candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several eertificates required respeetively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland from candidates for their diploma, together with a certifieate of instruction and proficieney in the praetiee of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge; and in the ease of eandidates who shall have pursued the whole of their studies at reeognised foreign or eolonial universities, upon the produetion of the several eertifieates required for their degree by the authorities of sueh universities, together with a certifieate of instruction and profieieney in the practice of vaecination, and satisfaetory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

8. Members or Licentiates of any legally eonstituted College of Surgeons in the United Kingdom, and graduates in Surgery of any university recognised for this purpose by this College, will be admitted to examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, a certifieate of instruction and profieieney in the practice of vaecination, and satisfactory evidenee of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the aequirement of professional knowledge.

9. Graduates in Medieine of any legally eonstituted college or university recognised for this purpose by this College will be admitted to examination on addueing, together with their diploma or degree, proof of being twenty-one years of age, a certificate of instruction and profieiency in the praetice of vaccination, and satisfaetory evidenee of having been oecupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

IV. *Professional Examination.*—This examination is divided into two parts. 1. The first or primary examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently disseeted subject, and on prepared parts of the human body. 2. The second or pass examination, on Surgical Anatomy and the Principles and Practiee of Surgery and Medicine,(e) is partly written, partly oral, and partly on the practical use of surgieal apparatus, and the practieal examination of patients. 3. The primary examinations are held in the months of January, April, May, July, and November, and the pass examinations generally in the ensuing week respectively. 4. Candidates will not bé admitted to the primary examination until after the termination of the seeond winter session of their attendance at a reeognised school or schools; nor to the pass or surgical examination until after the termination of the fourth year of their professional education. 5. The fee of £5 5s., paid prior to the primary examination, and allowed on the whole fee of £22(f) payable for the diploma, is retained; and after any two eonsecutive failures at the primary examination, the candidate is required to pay an *additional* fee of £5 5s. prior to being again admitted to that examination, which *additional* fee is also retained. 6. Five guineas, part of the sum of £16 15s., the balance of the whole fee due for the diploma and paid prior to the pass examination, is retained; and after any two consecutive failures at the pass examination, the candidate is required to pay an *additional* fee of £5 5s. prior to being again admitted to the said pass examination, whieh *additional* fee is also retained. 7. A candidate having entered his name for either the primary or pass examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend. 8. A candidate referred on the primary examination is required, prior to his admission to re-examination, to produce a certificate of the performanee of dissections during not less than three months, subsequently to the date of his reference. 9. A eandidate referred on the pass examination is required, prior to his admission to re-examination, to produee a eertificate of at least six months' further attendance on the surgical practiee of a recognised hospital, together with leetures on Clinieal Surgery, subsequently to the date of his reference.

## QUALIFICATION IN MIDWIFERY.

REGULATIONS RESPECTING THE PROFESSIONAL EDUCATION OF CANDIDATES FOR THIS CERTIFICATE.

1. Persons who were Fellows or Members of the College prior to the first day of January, 1853, will be admitted to examination for the certificate of qualification in Midwifery upon producing their diploma.

2. Persons having become Members of the College subsequently to the first day of January, 1853, will be admitted to examination on producing their diploma, together with a certificate or certificates of having attended twenty labours.

3. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will also be admitted to examination on producing, together with their diploma, lieence, or degree, proof of being twenty-one years of age—of having been occupied at least four entire years in the acquirement of professional knowledge—of having attended one course of lectures on Midwifery—and of having attended not less than twenty labours.

4. Graduates in Medieine of any legally constituted college or university recognised for this purpose by this College, will also be admitted to examination on producing, together with their diploma or degree, proof of being twenty-one years of age—of having been occupied at least four entire years in the acquirement of professional knowledge—of having completed, at recognised schools, the Anatomical and Surgical education required of candidates for the diploma of Member of the College—of having attended

(e) Candidates ean elaim exemption from examination in Medicine under the following eonditions, viz.:—1. The production by the candidate of a degree, diploma, or licence in Medicine entitling him to register under the Medical Act of 1858, or a degree, diploma, or licence in Medicine of a colonial or foreign university approved by the Counеil of the College. 2. A declaration by the candidate, prior to his admission to the final examination for Membership or Fellowship, that it is his intention to obtain either of the medieal qualifieations mentioned in the foregoing paragraph, in which case the diploma of the College will not be issued to him until he shall produce either the said medical qualification or proof of having passed the several examinations entitling him to reeeive the same.

(f) This sum of £22 is exclusive of the fee of £2 paid for the preliminary examination.

one course of lectures on Midwifery—and of having attended not less than twenty labours.

5. Persons having commenced their professional education, either by attendance on hospital practice or on lectures on Anatomy, prior to the first day of January, 1853, will be admitted to examination on producing the several certificates of professional education required for admission to examination for the diploma of Member of this College at the period when such persons shall respectively have, in such manner, commenced their professional education.

6. Persons having commenced their professional education, either by attendance on hospital practice or on lectures on Anatomy, after the 31st day of December, 1852, will be admitted to examination on producing certificates of being twenty-one years of age—of having been engaged during at least four entire years in the acquirement of professional knowledge—of having completed at recognised schools the professional education required of candidates for the diploma of Member of this College—of having attended one course of lectures on Midwifery and the Diseases of Women and Children—and of having personally conducted thirty labours.

*Note.*—All candidates who shall commence their professional education on or after October 1, 1866, will, in addition to the certificates enumerated in the foregoing clauses, be required to produce a certificate of having, prior to such commencement, passed a preliminary examination in general knowledge recognised by this College.

N.B.—The fee for the certificate is as follows:—1. Persons who were Fellows or Members of this College prior to January 1, 1853, two guineas. 2. Persons admitted Fellows or Members of this College subsequently to January 1, 1853, three guineas. 3, 4. Persons producing any other diploma or certificate or degree which may be considered by the Council to afford satisfactory proof of sufficient surgical and medical education, three guineas. 5, 6. All other persons, ten guineas.

The examinations are held in the months of February, May, August, and December.

REGULATIONS RELATING TO THE DIPLOMA IN DENTAL SURGERY.

*Education.*—Candidates are required to produce the following certificates:—

1. Of being twenty-one years of age.
2. Of having been engaged during four years in the acquirement of professional knowledge.
3. Of having attended, at a school or schools recognised by this College, not less than one of each of the following course of lectures, delivered by lecturers recognised by this College—namely, Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica.
4. Of having attended a second winter course of lectures on Anatomy, or a course of not less than twenty lectures on the Anatomy of the Head and Neck, delivered by lecturers recognised by this College.
5. Of having performed Dissections at a recognised school during not less than nine months.
6. Of having completed a course of Chemical Manipulation under the superintendence of a teacher or lecturer recognised by this College.
7. Of having attended, at a recognised hospital or hospitals in the United Kingdom, the practice of Surgery, and clinical lectures on Surgery during two winter sessions.
8. Of having attended, at a recognised school, two courses of lectures upon each of the following subjects—viz., Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one course of lectures on Metallurgy, by lecturers recognised by this College.
9. Of having been engaged, during a period of not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner.
10. Of having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of Dental Surgery during the period of two years.

N.B.—The students of the London schools are required to register the above certificates at this College; and special returns will be required from the provincial schools.

*Examination.*—The examination is partly written and partly oral.

The written examination comprises General Anatomy and Physiology, and General Pathology and Surgery, with especial reference to the practice of the Dental Profession.

The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc.

Members of the College, in the written examination, will only have to answer those questions set by the section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination will be examined only by that section.

A candidate whose qualifications shall be found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months, unless the Board shall otherwise determine.

Examinations will be held in January and June.

The fee for the diploma is ten guineas, over and above any stamp duty.

*Note.*—A ticket of admission to the museum, to the library, and to the College lectures will be presented to each candidate on his obtaining the diploma.

## SOCIETY OF APOTHECARIES (ENGLAND).

Every candidate for a certificate of qualification to practise as an apothecary will be required to produce testimonials—1. Of having passed a preliminary examination in Arts, as a test of general education. (This examination must be passed before the commencement of professional studies, which is defined by the Medical Council to be "the time of commencing studies at a medical school.") 2. Of having attained the full age of twenty-one years, of which satisfactory evidence will be required. 3. Of good moral conduct. 4. A certificate of three months Practical Pharmacy from some recognised hospital or dispensary, or from a qualified medical practitioner (the apprenticeship not being required). 5. Of having pursued a course of medical study in conformity with the regulations of the Court.

*Course of Study.*—Every candidate must attend the following lectures and medical practice during not less than three winter and two summer sessions (each winter session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each summer session to extend from May 1 to July 31):—

First Year.—Winter Session: Chemistry; Anatomy and Physiology; Dissections. Summer Session: Botany; Materia Medica and Therapeutics; Practical Chemistry.

Second Year.—Winter Session: Anatomy and Physiology, including dissections and demonstrations; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children, and Vaccination: Forensic Medicine and Toxicology; Clinical Medical Practice.

Third Year.—Winter Session: Principles and Practice of Medicine; Clinical Medical Lectures; Morbid Anatomy; Clinical Medical Practice.

N.B.—All medical students presenting themselves for the second examination shall produce evidence of having served the office of clinical clerk at a recognised hospital during the period of six weeks at least; and also shall produce evidence that they have been examined at the class examinations instituted by the various lecturers and professors of their respective medical schools and colleges.

No certificates of lectures or of anatomical instruction delivered in private to particular students, apart from the ordinary classes of recognised public medical schools, can be received by the Court of Examiners.

All students are required *personally* to register the several tickets of admission to lectures and medical practice within the first fifteen days of the months of October and May.

*Examination in Arts.*—Examinations will be held at the Hall of the Society on Friday and Saturday, January 29 and 30, April 23 and 24, September 24 and 25. Candidates will be examined in the following branches, and no candidate will be approved unless he show a competent knowledge of each branch of the examination:—1. The English language; 2. The Latin language; 3. Mathematics; 4. One of the following subjects at the option of the candidate:—(*a*) Greek, (*b*) French, (*c*) German, (*d*) Natural Philosophy. Candidates applying to be admitted to any examination must pay the fee (one guinea), at least one week before the examination, and must sign their names in the Candidates' Book between 10 a.m. and 4 p.m. o'clock, not later than the previous Thursday. If a candidate fail to pass the examination, the fee will not be returned to him, but he will be admissible to either or both of the two next following examinations in Arts without the payment of an additional fee, upon giving the usual notice, and signing the Candidates' Book.

*Syllabus of Subjects for Examination*, 1875.—I. The English Language: The leading features of its history; its structure and grammar; English composition. II. The Latin Language: January examination—Cæsar: De Bello Gallico, Books I. and II. April examination—Horace: Odes, Book III. September examination—Cicero: Oratio in Catiliuam. Re-translation of easy sentences. Grammatical questions will be introduced into the Latin paper, and each candidate will be expected to give satisfactory answers to these. III. Mathematics: The ordinary rules of arithmetic; vulgar and decimal fractions; addition, subtraction, multiplication, and division of algebraical quantities; simple equations; the first two Books of Euclid. IV. One of the following subjects at the option of the candidate:—(*a*) Greek: Xenophon, Anabasis, Books I. and II.; grammatical questions. (*b*) French: Molière, "Le Médecin malgré lui"; translation from English into French; grammatical questions. (*c*) German: Schiller's "Wilhelm Tell"; translation from English into German; grammatical questions. (*d*) Natural Philosophy: Mechanics; hydrostatics and pneumatics. [The books recommended for study in this subject are Smith's "Statics" and Smith's "Hydrostatics."]

Certificates in Arts granted by any of the bodies whose certificate is recognised by the Medical Council will be accepted from candidates who present themselves at the professional examination at the Hall as equivalent to their having passed this examination.

*Professional Examinations.*—The Court of Examiners meet in the Hall every Wednesday and Thursday, where candidates are required to attend at 4.30 p.m. each day. Every person intending to offer himself for examination must give notice in writing to the Clerk of the Society on or before the Monday previous to the day of examination, and must at the same time deposit all the required testimonials and the fee at the office of the Beadle, where attendance is given every day, except Sunday, from ten to four o'clock; Saturdays ten to two.

The examination of candidates is divided into two parts, and is conducted partly in writing and partly *vivâ voce*.

*The written examination will take place on Wednesdays, and the* vivâ voce *examination on Thursdays.*

Those students *only* who have to undergo the writing will have to attend on Wednesday, at half-past four p.m.

The first examination, which may be passed after the second winter session, embraces the following subjects:—The British Pharmacopœia; Latin of Physicians' Prescriptions; Anatomy and Physiology; General and Practical Chemistry; Botany; and Materia Medica.

Second or pass examination, at the termination of the medical studies:—Principles and Practice of Medicine; Pathology; Therapeutics; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

All graduates in Medicine of British universities will be admitted to a practical examination in Medicine and Midwifery only.

Licentiates of the Royal College of Physicians, London; of the Royal College of Physicians, Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall of Dublin, will be admitted to a *vivâ voce* examination in Medicine, Midwifery, Forensic Medicine, and Toxicology.

Any candidate who has passed his first examination for the licence of the Royal College of Physicians, London; the licence of the King and Queen's College of Physicians, Ireland; the joint licence of the Royal College of Physicians and Surgeons, Edinburgh, or for the single licence of the College of Physicians, Edinburgh; the licence of the Faculty of Physicians and Surgeons, Glasgow; the first professional examination for the degree of M.B., or Master in Surgery, in the Universities of Oxford, Cambridge, or London; or the second part of the professional examination for the degree of M.B., or Master in Surgery, in the Universities of Edinburgh, Aberdeen, St. Andrews, and Glasgow; or the first examination for the medical and surgical degrees in the Irish Universities; or the first examination for the licence of the Apothecaries' Company, Dublin, will be admitted to a single examination in Materia Medica, Medicine, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology, part of which examination will be conducted in writing.

Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the first Anatomical Examination of the Royal College of Surgeons, London; the Royal College of Surgeons, Edinburgh; the Royal College of Surgeons, Ireland, are exempt from *writing* on Anatomy and Physiology *only* in their first examination.

Candidates who were apprenticed before August 1, 1858, and those students who commenced their hospital attendance on or before October 1, 1861, will be admitted to a *vivâ voce* examination on the following subjects:—In translating physicians' prescriptions, in such parts of Chemistry and Materia Medica as bear upon the Practice of Medicine, and on Toxicology, in Forensic Medicine, Visceral Anatomy, the Practice of Medicine, including Diseases of Women and Children, and in Midwifery.

All candidates, unless registered, will be required to produce their diploma.

The examination of candidates for certificates of qualification to act as Assistant in compounding and dispensing medicines is as follows:—In translating physicians' prescriptions, in the British Pharmacopœia, in Pharmacy, Pharmaceutical Chemistry, Materia Medica, and Medical Botany.

By the 22nd section of the Act of Parliament, no rejected candidate for the licence can be re-examined until the expiration of six months from his former examination. A candidate rejected on his first professional examination can be admitted to re-examination after the expiration of three months. No rejected candidate as an Assistant can be re-examined until the expiration of three months.

*Fees.*—For a certificate of qualification to practise, six guineas, half of which is retained in case of rejection, to be accounted for at a subsequent examination. For the first examination, three guineas; for an Assistant's certificate, two guineas; both of which sums are retained in case of rejection, and accounted for subsequently.

*Student's Prizes.*—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and also two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most in the examination; and of a silver medal and a book to the candidate who does so in the next degree.

The examination in Botany will be held at the Hall of the Society on the third Wednesday in June, at 10 a.m., and will be conducted by printed papers and *vivâ voce* questions.

The examinations in Materia Medica and Pharmaceutical Chemistry will be held at the Hall of the Society on the third Wednesday, and on the following Friday, in October, from ten in the forenoon to one in the afternoon of each day; by printed papers on the Wednesday, and by *vivâ voce* questions on the Friday.

The Society's Botanic Garden at Chelsea is open daily (except Sunday) from ten till five o'clock p.m. Tickets of admission may be had on application at the Beadle's Office, Apothecaries' Hall, Blackfriars, E.C.

## ARMY MEDICAL DEPARTMENT,

WHITEHALL-YARD.

QUALIFICATIONS OF CANDIDATES FOR COMMISSIONS IN THE ARMY MEDICAL SERVICE, WITH A SUMMARY OF THE RULES BY WHICH THE PAY, PROMOTION, AND RETIREMENT OF MEDICAL OFFICERS ARE REGULATED AND DETERMINED.

(I.)—1. Every candidate desirous of presenting himself for admission to the Army Medical Service must be unmarried, and not under twenty-one nor over twenty-eight years of age. He must produce a certificate from the District Registrar, in which the date of birth is stated; or if this cannot be obtained, an affidavit from one of the parents or other near relative who can attest the date of birth will be accepted. He must also produce a certificate of moral character from the parochial minister, if possible.

2. The candidate must make a declaration that his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical Officer in any climate. His physical fitness will be determined by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed. The Board must also certify that he is free from organic or other disease, and from constitutional weakness or other disability likely to unfit him for military service in any climate.

3. The candidate must possess two diplomas or licences, one to practise Medicine, and the other Surgery in Great Britain or Ireland, and must be registered under the Medical Act in force at the time of his appointment.

4. Certificates of registration, character, and age must accompany the declaration when filled up and returned.

5. Candidates will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a.* Anatomy and Physiology, 1000 marks; *b.* Surgery, 1000; *c.* Medicine, including Therapeutics, the Diseases of Women and Children, 1000; *d.* Chemistry and Pharmacy, and a practical knowledge of drugs, 100. N.B. The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The eligibility of each candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Examinations will also be held in the following voluntary subjects, for which the maximun number of marks will be—French and German (150 each), 300 marks; Natural Sciences, 300. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The Natural Sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to Materia Medica. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences.

6. After passing this examination, every candidate will be required to attend one entire course of practical instruction at

the Army Medical School on:—(1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Military Surgery; (4) Pathology of Diseases and Injuries incident to Military Service.

7. At its conclusion the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a commission as Surgeon.

8. During the period of his residence at the Army Medical School each candidate will receive an allowance of 5s. per diem with quarters, or 7s. per diem without quarters, to cover all cost of maintenance; and he will be required to provide himself with uniform (viz., the Regulation undress uniform of a Surgeon, but without the sword).

9. All candidates will be required to conform to such rules of discipline as the Senate may from time to time enact.

(II.)—The pay, promotion, and retirement of Medical Officers of the Army are regulated by the following rules:—

1. The daily rates of pay of Medical Officers of the Army are as follows:—Pay daily: Director-General special; Surgeon-General £2, after twenty-five years' service £2 5s., after thirty years' service £2 7s., after thirty-five years' service £2 10s.; Deputy Surgeon-General £1 10s., after twenty-five years' service £1 12s., after thirty years' service £1 15s., after thirty-five years' service £1 17s.; Surgeon-Major 17s. 6d., after fifteen years' service £1, after twenty years' service £1 4s., after twenty-five years' service £1 7s.; Surgeon, on appointment 10s., after five years' service 12s. 6d., after ten years' service 15s.; after fifteen years' service, 17s. 6d. Charge pay: The principal Medical Officer of an army in the field, of 10,000 men and upwards, £1 daily; of 5000 men and upwards, 15s. daily; of less than 5000, 10s. daily. Or, the principal Medical Officer of a colony where the number of commissioned officers and enlisted men is 1500 and upwards, 5s. daily.

2. A Surgeon must pass such examination as the Secretary of State for War may require before he can be promoted to the rank of Surgeon-Major.

3. A vacancy in the rank of Surgeon-Major, occasioned by death or promotion, shall, unless it be expedient that it be otherwise filled, be given to the senior qualified Surgeon of the Department. If a vacancy arise from any other cause, it shall be filled by a qualified Surgeon, recommended by the Commander-in-Chief, and with the approval of the Secretary of State. In cases of distinguished service, however, a Surgeon, if qualified, may be promoted without reference to seniority.

4. All promotion from the rank of Surgeon-Major to that of Deputy Surgeon-General, and from the rank of Deputy Surgeon-General to that of Surgeon-General, shall be given by selection for ability and merit.

5. Service of Medical Officers upon the West Coast of Africa shall be voluntary, except for those who enter the Department especially for African service.

6. Each year or portion of a year shall be allowed to reckon double towards retirement, but not towards increased pay, provided that the officer shall serve at least twelve months on the West Coast of Africa.

7. For each year's service on the Coast, a Medical Officer shall be entitled to a year's leave at home, and for every additional period beyond a year he shall have an equivalent extension of leave.

8. Officers who may enter the Army Medical Department expressly for service on the West Coast of Africa, and those who may volunteer for that service from the General Department after this date, shall receive double pay while actually serving on the Coast.

9. Officers who enter the department expressly for service on the West Coast of Africa shall pass the same examination as other Medical Officers, but they may be admitted at a later age. They will be required to complete three years' actual service on the Coast, after which they shall be eligible for general service. If it shall be certified by a Medical Board that any such officer is unfit for further duty on the West Coast of Africa, he may be employed elsewhere, notwithstanding that he may have served for less than three years on the Coast.

10. Good service pensions shall be awarded to the most meritorious Medical Officers of the Army, under such regulations as shall be from time to time determined. Six of the most meritorious Medical Officers of the Army shall be named Honorary Physicians, and six Honorary Surgeons to the Queen.

11. Medical Officers shall have a right to retire on half-pay after twenty years' service; Medical Officers of the rank of Surgeon-Major, or Surgeon, shall be placed on the retired list at the age of fifty-five, and all Surgeons-General and Deputy Surgeons-General at the age of sixty-five years.

12. A Medical Officer placed on half-pay by reduction of establishment, or on the report of a Medical Board, in consequence of wounds or ill-health caused in and by discharge of his duties, or on account of age (under Rule 11), shall be entitled to half-pay at the following daily rates:—Surgeon-General, after thirty years' service, £1 17s. 6d.; after twenty-five years' service, £1 13s. 6d.; after twenty years' service, £1 10s. Deputy Surgeon-General, after thirty years' service, £1 5s. 6d.; after twenty-five years' service, £1 2s. 6d.; after twenty years' service, £1 1s. Surgeon-Major, after twenty-five years' service, £1; after twenty years' service, 16s. 6d.; after fifteen years' service, 13s. 6d.; after ten years' service, 11s. Surgeons, after ten years' service, 10s.; after five years' service, 8s.; under five years' service, 6s.

13. The rate of half-pay awarded to officers retiring for their own convenience after twenty years' service on full-pay shall not exceed one-half of their full-pay at the time of retirement.

14. Every Medical Officer who shall retire after a service upon full pay of twenty-five years shall be granted a rate of half-pay equal to seven-tenths of the daily pay he may have been in receipt of when thus retiring or proceeding on half-pay, provided he shall have served three years in his rank, or shall have served abroad for ten years in all ranks, or for five years with an army in the field. An officer of twenty-five years' full-pay service, whose service does not fall within any of these conditions, shall be entitled to only seven-tenths of the daily pay he was in receipt of prior to his last promotion.

15. A Medical Officer placed on half-pay from any other cause shall be allowed only a temporary rate of half-pay (not exceeding the rates specified in Rule 12) for such period and at such rate as the Secretary of State for War shall decide, with reference to the services rendered to the public by such officer.

16. Medical Officers of twenty years' full-pay service, placed temporarily on half-pay under Rule 15 on account of ill-health may, however, be allowed to retire on permanent half-pay at the rate fixed by Rule 12, if after one year on half-pay they shall be reported by a Medical Board to be permanently unfit for further service.

17. Medical Officers are entitled to quarters, fuel, and light, free of charge, or allowances in lieu thereof; also to an allowance for a servant when not provided with a soldier to act as such.

18. These allowances are determined by the relative rank of Medical Officers, which is as follows:—

| | |
|---|---|
| Surgeon-General after three years service, or with an army in the field .. .. .. .. | ranks as Major-General. |
| Surgeon-General after three years' service .. .. | „ „ Brigadier-General. |
| Deputy-Surgeon General after five years' service as such .. | „ „ Colonel. |
| Deputy Surgeon-General under five years' service .. .. | „ „ Lieut.-Colonel. |
| Surgeon-Major of twenty years' service .. .. .. | „ „ Lieut.-Colonel. |
| Surgeon-Major under twenty ears' service .. .. | „ „ Major. |
| Surgeon of six years' service .. | „ „ Captain. |
| Surgeon under six years' service | „ „ Lieutenant. |

19. Forage will be granted to Medical Officers for such number of horses as are necessarily kept by them for duty.

N.B.—The rates of pay of British Medical Officers serving in India are the same as those sanctioned for the India Medical Service.

## ARMY MEDICAL SCHOOL.

*President of the Senate.*—Sir William M. Muir, K.C.B., Director-General of the Army Medical Department.

*Members of the Senate.*—Sir Ranald Martin, C.B., Physician to the Indian Council; Surgeon-General J. Fraser, M.D., C.B., Principal Medical Officer Royal Victoria Hospital; Surgeon-General T. Longmore, C.B., Professor of Military Surgery; Surgeon-General W. C. Maclean, Professor of Military Medicine; William Aitkin, M.D., Professor of Pathology; E. A. Parkes, M.D., F.R.S., Professor of Military Hygiene.

*Assistant Professors.*—Surgeons-Major T. H. Porter, W. H. Webb, and F. S. B. F. De Chaumont, M.D.; and Surgeon F. H. Welch.

Candidates for Commissions in the Army and in the Queen's Indian Service proceed to Netley after passing the examination in London. At Netley they attend the medical and surgical practice of the Royal Victoria Hospital, and learn the system and arrangements of military hospitals. During four months they attend the lectures given by the professors and assistant-professors, and go through a course of practical instruction in the hygienic laboratory and microscopical room.

## NAVAL MEDICAL DEPARTMENT, ADMIRALTY.

QUALIFICATIONS AND REGULATIONS FOR THE EXAMINATION OF CANDIDATES FOR COMMISSIONS IN THE MEDICAL SERVICE OF THE ROYAL NAVY.

The Lords Commissioners of the Admiralty are pleased to direct that the following regulations, relative to the examination of candidates for the appointment of Surgeon in the Royal Navy, shall in future be adopted :—

1. Every candidate desirous of presenting himself for admission to the Naval Medical Service must be not under twenty-one nor over twenty-eight years of age. He must produce a certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must also produce a certificate of moral character, signed by a clergyman or a magistrate to whom he has been for some years personally known.

2. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, nor any other imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate. His physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard. He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so.

3. He must be registered under the Medical Act in force at the time of his appointment, as licensed to practise Medicine and Surgery in Great Britain or Ireland.

4. Certificates of registration, character, and age must accompany the schedule when filled up and returned.

5. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics, and the Diseases of Women and Children; Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.) The eligibility of each candidate for the Naval Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany with special reference to Materia Medica, also in French and German; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science.

6. After passing this examination, every candidate will be required to attend one entire course of practical instruction in the Medical School at Netley on—(1) Hygiene, (2) Clinical and Naval and Military Medicine, (3) Clinical and Naval and Military Surgery, (4) Pathology of Diseases and Injuries incident to Naval and Military Service.

7. At its conclusion the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of a Naval Medical Officer, he will be eligible for a commission as Surgeon.

8. During the period of his residence at the Netley Medical School each candidate will receive an allowance of 5s. per diem with quarters, or 7s. per diem without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform (viz., the Regulation undress uniform of a Surgeon, but without the sword).

9. All candidates will be required while at Netley to conform to such rules of discipline as the Senate may from time to time enact.

10. After completing three years' full-pay service, Surgeons will be allowed to be examined for the rank of Staff Surgeon, second class; but no Surgeon can be promoted to the rank of Staff Surgeon, second class, until he shall have served five years, two of which must have been in a ship actually employed at sea.

REGULATIONS SHOWING RANK, PAY, AND POSITION OF NAVAL MEDICAL OFFICERS.

1. Surgeons at home, after completing their time for examination for the rank of Staff Surgeon, second class, may be granted two months' leave of absence on full pay, on condition of their resuming their studies at a medical school or hospital.

2. Promotion to the rank of Staff Surgeon is open to officers for distinguished or special service, although twenty years on full pay may not have been completed; such Staff-Surgeons will have 16s. a day half-pay.

3. Staff Surgeons rank with Commanders, according to date of commission.

4. The whole time served on full pay as a Surgeon to be allowed to Staff Surgeons, second class, to qualify for the rank of Staff Surgeon, provided the examination for Staff Surgeon, second class, is passed before the officer completes ten years' service, otherwise only ten years served as Surgeon will be allowed to count.

5. Staff Surgeons are appointed to the flag ships of Commanders-in-chief on foreign stations, with an allowance of 5s. a day in addition to their established pay.

6. The hospital allowances for Naval Medical Officers at home and abroad, in lieu of provisions, for themselves and servants, and for fuel and light, are as follows:—Inspectors-General of Hospitals, £85 at home, £130 abroad; Deputy Inspectors-General, £65 at home, £112 abroad; Staff-Surgeons and Staff-Surgeons, second class, £53 at home, £112 abroad; Surgeons, £39 at home, £108 abroad. In cases where Medical Officers draw provisions or fuel from public stores, they will be charged for the same at cost price.

7. The travelling allowances, extra pay, lodging money, and compensation for losses are fixed for Naval Medical Officers according to their relative rank in the service.

8. Medical Officers have cabins according to their relative rank in the service, excepting always that the Senior Executive Officer of whatever rank has the one most suitable for his duties.

9. The full and half-pay of Naval Medical Officers is in accordance with the following scale:—

Full-pay: Surgeon—Under five years' service (except during the session at Netley) [see Regulations], 11s.; under eight years' service, 12s. 6d.; under eleven years' service, 14s.; under fourteen years' service, provided he passed his examination for Staff Surgeon, second class, while under ten years' service, 15s. 6d.; above fourteen years' service, ditto, 17s. Staff Surgeon 2nd class—On promotion, or under fourteen years' service, 18s.; ditto, or under seventeen years' service, £1; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 2s. Staff Surgeon—On promotion, or under twenty years' service, £1 3s.; ditto, or above twenty years' service, £1 4s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 10s. Deputy Inspector-General of Hospitals and Fleets—On promotion, or under twenty-two years' service, £1 11s.; ditto, or above twenty-two years' service, £1 12s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 18s. Inspector-General of Hospitals and Fleets—On promotion, or under twenty-five years' service, £2 5s.; ditto, or above twenty-five years' service, £2 6s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £2 10s. Half-pay: Surgeon—Under five years' service, 6s.; under eight years' service, 8s.; under eleven years' service, 10s.; above eleven years' service, provided he passed his examination for Staff Surgeon 2nd class while under ten years' service, 17s. Staff Surgeon 2nd class—On promotion, or under fourteen years' service, 11s.; ditto or under seventeen years' service, 13s.; ditto, or above seventeen years' service, 14s. Staff Surgeon—On promotion, or under twenty years' service, 16s.; ditto, or above twenty years' service, 16s. 6d.; and for each additional year of service 6d. a day more until the maximum is reached—namely, 18s. 6d. Deputy Inspector-General of Hospitals and Fleets—On promotion, or under twenty-two years' service, £1 1s.; ditto, or above twenty-two years' service, £1 2s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 7s. Inspector-General of Hospitals and Fleets—On promotion, or under twenty-five years' service, £1 11s.; ditto, or above twenty-five years' service, £1 12s.; and for each additional year of service 1s. a day more until the maximum is reached—namely, £1 18s.

10. Retirement is provided for according to age and service, under special regulations.

11. My Lords will consider, and publish hereafter, the manner in which it may be found most advisable to assist Naval Medical Officers in their professional education after examination and admission into the Navy.

DECLARATION.

Recommended by _____ I _____

_____ Years of Age in _____ last—vide accompanying Certificate—a Candidate for appointment as a Medical Officer in the Royal Navy, do hereby engage for general service, and attest my readiness to proceed on duty abroad whenever required to do so.

I declare that I labour under no mental or constitutional disease or weakness, nor any other imperfection or disability which can interfere with the most efficient discharge of the duties of a Medical Officer in any climate.

Signature, _____

Date, _____

Place of residence, _____

SCHEDULE OF QUALIFICATIONS.

I have in my possession the following Degrees, Diplomas, and other Qualifications in Medicine, Surgery, and in Arts:—

I wish to be examined in the following voluntary subjects, viz.:—

Signature, _____

# RULES AND REGULATIONS OF THE EXAMINING MEDICAL BODIES IN SCOTLAND.

## UNIVERSITY OF EDINBURGH.

The Session 1874-75 will be publicly opened on Monday, November 2, with an address by the Principal.

GRADUATION IN MEDICINE—STATUTES OF THE UNIVERSITY OF EDINBURGH RELATIVE TO GRADUATION IN MEDICINE AND SURGERY.

Three medical degrees are conferred by the University of Edinburgh—viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the degree of Bachelor of Medicine.

I. The preliminary branches of extra-professional education are—English, Latin, Arithmetic, the elements of Mathematics, and the elements of Mechanics; and the proficiency of students in these branches is ascertained by examination prior to the commencement of their medical study.

II. No candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his medical curriculum.

III. A degree in Arts (not being an honorary degree) in any one of the universities of England, Scotland, or Ireland, or in any colonial or foreign university, specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an examination in Arts by any corporate body whose examination has been recognised as qualifying for entrance on medical study by resolution of the General Medical Council of the United Kingdom, provided the said examination by the said corporate body shall be also approved by the University Court, shall exempt from preliminary examination in Arts, on all subjects comprised in the said examination of the said corporate body.

IV. No one is admitted to the degree of Bachelor of Medicine or Master in Surgery who has not been engaged in medical and surgical study for four years—the medical session for each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course, and two courses of not less than fifty lectures each; with the exception of the clinical courses, in which lectures are to be given at least twice a week during the prescribed periods.

V. Every candidate for the degrees of M.B. and C.M. must give sufficient evidence by certificates—

1. That he has studied each of the following departments of medical science—viz., Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children (two courses of Midwifery of three months each being reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses), General Pathology (or, in schools where there is no such course, a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine, or Clinical Medicine), during courses including not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures above prescribed; Practical Chemistry, three months; Practical Midwifery, three months at a midwifery hospital, or a certificate of attendance on six cases from a registered medical practitioner; Clinical Medicine, Clinical Surgery, courses of the same duration as those of not less than one hundred lectures above prescribed, or two courses of three months, lectures being given at least twice a week; Medical Jurisprudence, Botany, Natural History, including Zoology, during courses including not less than fifty lectures.(a *and* b)

2. That he has attended for at least two years the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons.

3. That he has been engaged for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the laboratory of a hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or a member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, physician, surgeon, or member of the London or Dublin Society of Apothecaries.

VI. The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to the following regulations:—

1. One of the four years of medical and surgical study required by Section IV. must be in the University of Edinburgh.

2. Another of such four years of medical and surgical study must be either in the University of Edinburgh or in some other university entitled to give the degree of Doctor of Medicine.

3. Attendance during at least six winter months on the medical or surgical practice of a general hospital which accommodates at least eighty patients, and during the same period on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on courses of lectures as above prescribed.

4. One year's attendance on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of Medicine in Edinburgh, or elsewhere, as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on courses of lectures, as above prescribed.

5. Candidates may, to the extent of four of the departments of medical study required by Section V., Sub-section 1, attend, in such year or years of their medical and surgical studies as may be most convenient to them, the lectures of the teachers of Medicine specified in the foregoing Sub-section 4.

6. All candidates, not students of the University, availing themselves of the permission to attend the lectures of extra-academical teachers in Edinburgh, must at the commencement of each year of such attendance enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University, and having, in respect of such payment, a right to the use of the library of the University.

7. The fee for attendance on the lectures of an extra-academical teacher in Edinburgh, with a view to graduation, must be of the same amount as that exigible by medical professors in the University. (The fee must be paid at the commencement of the course.)

8. No teacher is recognised who is at the same time a teacher of more than one of the prescribed branches of study, except in those cases where professors in the University are at liberty to teach two branches.

(a) Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the carefulness with which the dissections have been made. Students are recommended not to appear for an examination in Anatomy, with a view to a degree, until they have dissected the human body at least once.

(b) The Medical Faculty recommend that medical students should not attend Clinical Surgery during their first six months' attendance on Clinical Medicine. *See* Note as to vaccination, appended to Section XX.

VII. Every candidate must deliver, before March 31 of the yearin which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration in his own handwriting that he has completed his twenty-first year (or that he will have done so on or before the day of graduation), and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master.

2. A statement of his studies, as well in literature and philosophy as in Medicine, accompanied with proper certificates.

VIII. Each candidate is examined, both in writing and *vivâ voce*—first, on Chemistry, Botany, and Natural History; secondly, on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; thirdly, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; fourthly, clinically on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, and Natural History are conducted, as far as possible, by demonstrations of objects placed before the candidates.

IX. Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of their second year, may be admitted to examination at that time.(c)

X. Students who have passed their examination on the first division of these subjects may be admitted to examination on the second division at the end of their third year.

XI. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *annus medicus*.

XII. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

XIII. If any candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied, during another year, two of the prescribed subjects, either in the University or in some other school of Medicine.

XIV., XV., XVI. * * * * *

XVII. The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degree of Bachelor of Medicine, and is of the age of twenty-four years, and produced a certificate of having been engaged, subsequently to his having received the degree of Bachelor of Medicine, for at least two years in attendance on a hospital, or in the Military or Naval Medical Services, or in medical and surgical practice: Provided always that the degree of Doctor of Medicine shall not be conferred on any person, unless he be a graduate of Arts in one of the universities of England, Scotland, or Ireland, or of such other universities as are above specified, or unless he shall, before or at the time of his obtaining the degree of Bachelor of Medicine, or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, Higher Mathematics, and Natural Philosophy: And provided also that the candidate for the degree of Doctor of Medicine shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree. The candidate must lodge his thesis with the Dean on or before April 30 of the year in which he proposes to graduate. No thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical Medicine, Surgery, Midwifery, or some of the sciences embraced in the curriculum for the Bachelor's degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the degree of M.D., (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

XVIII. The medical examiners for all candidates for graduation in Medicine are the Professors in the Faculty of Medicine, and, in addition, not fewer than seven specially qualified persons selected from among the members of the three following bodies—namely, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, or shall be persons otherwise fully qualified in the judgment of the University Court.

XIX. The provisions of these statutes came into operation on February 4, 1861.

XX. Persons who began their medical studies before October 15, 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

*Note.*—In conformity with the desire expressed by the Privy Council, it has been resolved that any candidate for a degree in Medicine must produce, at his final examination, a certificate from a dispensary or other public institution where vaccination is practised, attesting that he has been practically instructed in the operation, and is acquainted with the appearances which follow its performance.

*Notice to Candidates for Graduation in Medicine.*—Candidates who commenced their medical studies by attendance on qualifying classes before October 15, 1861, are entitled to appear for examination for the degree of Doctor of Medicine, after four years' study, on completing their twenty-first year, and without having taken the degree of Bachelor of Medicine. They are also exempted from the preliminary examinations mentioned in Sections I. and II., and require only to undergo an examination in Latin. They are also exempted from attendance on Practical Chemistry and Practical Midwifery, and require only three months of Clinical Surgery, and eighteen months of hospital attendance.

An *Annus Medicus* is constituted by at least two winter courses of one hundred lectures each, or by one such course, and two summer courses of fifty lectures each, all being duly certified.

Four *Anni Medici* are required for Graduates in Medicine. Two at least of these years must be passed at a university which grants degrees in Medicine, one of the two being at Edinburgh.

One or two of the *Anni Medici* may be taken at qualified extra-academical schools, in the manner stated in the succeeding paragraph:

In University College, in King's College, in the hospital schools of London, in the extra-academical School of Edinburgh, in the School of the College of Surgeons of Dublin, and in certain medical schools where at least two lecturers have been qualified by the University Court, a candidate may make *two Anni Medici*—one of which must be constituted by hospital attendance and Practical Anatomy, and the other by at least two courses of one hundred lectures. or one such course, and two courses of fifty lectures. The classes at these schools only qualify to the extent of four, and one of the four must be Practical Anatomy.

In provincial schools where there are no lecturers qualified by the University Court, a candidate can make *one Annus Medicus only*, and this is constituted by attendance on a qualified hospital, along with a course of Practical Anatomy.

The Edinburgh extra-academical classes only qualify if the fee paid at the commencement of the session is the same as that paid to the professors in the University.

All classes must be taken at a university, except *four* selected by the candidate. The classes so selected must be qualifying courses, as regards the subjects and extent.

Three months' courses of Materia Medica, Pathology, and Midwifery do not qualify. For each of these subjects *one* course of one hundred lectures is required.

No teacher is qualified who lectures on more than one of the required subjects, as specified in Section VI., 8.

Every candidate for a degree in Medicine must be a matriculated student of the University for the year in which he appears for examination or graduation.

The dates of the examinations for 1874-75 have been fixed as follows; and candidates for each of them are required to assemble in the upper Library Hall a quarter of an hour before the time fixed for examination:—Preliminary examination in Arts, October 13 and 14, 1874; March 16 and 17, 1875, at 10.30 a.m. each day. First professional examination, October 23 and 24, 1874; April 1 and 2, 1875, at 11 o'clock each day. Second professional examination, April 9 and 10, 1875, at 12 o'clock each day. Final professional examination, June, 1875, at 12 o'clock. Graduation, August 1, at 10 o'clock.

The names of candidates for the foregoing examinations must be given in, and the fees paid, etc., as follows:—For the final examination in June, 1875, on or before May 25; for graduation on August 1, on or before July 15; for second professional examination in April, 1875, on or before March 25; for preliminary examination in October, 1874, on or before October 5; for preliminary examination in March, 1875, on or before March 5; for first professional examination in October, 1874, on or before October 12; for first professional examination in April, 1875, on or before March 19; theses for M.D. on or before April 30, 1875. Specimens of the examination papers for 1873-74 are given in the Calendar.

The preliminary examinations in Arts accepted by the General Council are recognised *pro tanto*—that is to say, they exempt from examination in Arts on the subjects comprised in them, in so far as the examinations are of the same extent as those required by this University. Any subjects required by the statutes, and not included in these examinations, or not carried out to the requisite extent, must be passed at the University. In all cases candidates must produce certificates of having passed such examinations, with an official notice of the subjects in which they have passed.

The fees for the examinations are—For the preliminary examination, each non-matriculated student pays a fee of 10s. (candidates who paid

(c) Students who commence their medical studies in May may appear for this examination on the second October after the commencement of their studies, provided they have complete certificates for two qualifying summer sessions, and one qualifying winter session, two courses having been attended during each of the three sessions.

the fee in March may obtain admission to the examination in October without further payment); for the degree of M.B., three Examinations, £5 5s. each, £15 15s.; for the degree of C.M., £5 5s. additional; for the degree of M.D., £5 5s. additional to that for M.B., exclusive of £10 Government stamp.

*Note.*—Total fees and stamp for graduating as M.D. only, by regulations, for students who commenced their medical education before October 15, 1861, £25.

Students are recommended to commence their medical studies by attending a summer session.

MEDICAL DEGREES.—PRELIMINARY EXAMINATION IN ARTS.
PROGRAMME FOR 1874-75.

I. In conformity with Section I. of the Statutes, examinations on the preliminary branches of extra-professional education will take place on Tuesday and Wednesday, October 13 and 14, 1874, and on Tuesday and Wednesday, March 16 and 17, 1875, at 10.30 o'clock a.m. Examination on Tuesdays.—English, Arithmetic, Mechanics, Greek, Higher Mathematics, and German. Examination on Wednesdays.—Latin, Elements of Mathematics, Natural Philosophy, French, Logic, and Moral Philosophy. 1. English.—The Examination will include (1) Writing a passage of English from dictation; (2) English Composition, with the correction of sentences of bad English; (3) Questions in English Grammar, with analyses of sentences, and the derivation and definition of some common English words; (4) General questions in History and Geography. 2. Latin.—"Livy," Book xxii., an easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be retranslated into Latin, the more difficult Latin words being given. 3. Arithmetic.—The common rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics.—Euclid, Books i. ii., and iii., and the elementary rules of Algebra, including Simple Equations. A knowledge of Euclid alone will not be sufficient. 5. Elements of Mechanics.—Elementary Mechanics and Hydrostatics. (*See* "Goodwin" or "Todhunter.")

II. At the same dates examinations will take place in conformity with Section II. of the said Statutes, which enacts that no candidate shall be admitted to a professional examination who has not passed a satisfactory examination on at least *two* of the following subjects (in addition to the subjects mentioned above):—1. Greek.—Xenophon, "Memorabilia," Book ii. 2. French.—Molière, "Le Bourgeois Gentilhomme." 3. German. Goethe's "Egmont." 4. Higher Mathematics.—Euclid, Books i. to vi.—Algebra, Trigonometry, and Conic Sections.—5. Natural Philosophy.—Text-book recommended—Balfour Stewart's "Elementary Physics." 6. Logic.—Jevon's "Elementary Lessons in Logic." 7. Moral Philosophy.—Professor Calderwood's "Handbook," pp. 1 to 43, and 77 to 142. The working of the questions in Arithmetic, Mathematics, Mechanics, and Natural Philosophy, as well as the answers, must be exhibited. As regards Latin, Greek, French, and German, mere translation is not sufficient. Candidates must answer questions in grammar, and must be prepared to translate a passage of English into these languages.

In Section XVII. of the said Statutes it is enacted that the degree of Doctor of Medicine shall not be conferred on any person unless he be a graduate in Arts, or unless he shall, before or at the time of his obtaining the degree of Bachelor of Medicine, or thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. Two of these must be Greek and Logic or Moral Philosophy, and the *third* may be any one of the following subjects—namely, French, German, Higher Mathematics, Natural Philosophy.

Examinations of the same extent, and on the same subjects, at other British Universities granting the degree of M.D. will exempt from these preliminary examinations. Certificates of having passed such examinations must be produced, with an official notice of the subjects on which the candidate has passed an examination.

Students who come under the old statutes, in consequence of having commenced their medical curriculum by attendance on classes before October 15, 1861, will be examined in Latin on Wednesday, October 14, 1874, and Wednesday, March 17, 1875, at 10.30 a.m. For nature of examination, see Section I. of this programme.

GRADUATION IN SCIENCE—SECTION E., PUBLIC HEALTH.

In consequence of the great demand which now exists for Medical Officers of Health, and the importance to the public of some means of ascertaining that members of the medical profession have specially studied the subject of Public Health, Science degrees in the Department of Public Health have been instituted, under the following conditions:—

1. Candidates for graduation in Science in the Department of Public Health must be graduates in Medicine of a British university, or of such foreign or colonial universities as may be specially recognised by the University Court.

2. Candidates who have not passed an *Annus Medicus* in the University of Edinburgh must, before presenting themselves for examination, have attended as matriculated students in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations.

3. There are two examinations for the degree of Bachelor of Science in the Department of Public Health. Candidates who have passed the first examination may proceed to the second, after an interval of five months.

4. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which instruction was given on Public Health, and that they have studied Analytical Chemistry practically for three months with a recognised teacher.

5. The examinations are written, oral, and practical, and are conducted by University examiners selected by the University Court.

6. The subjects of the examinations for the degree of Bachelor of Science in the Department of Public Health are as follows:—

*First Examination.*—(1.) Chemistry: Analysis of air, detection of gaseous emanations and other impurities in the atmosphere. Analysis of waters for domestic use, and determination of the nature and amount of their mineral and organic constituents. Detection, chemical and microscopical, of adulterations in articles of food and drink, and in drugs. Practical examination, including at least two analytical researches. (2.) Physics: Hydraulics and Hydrostatics, in reference to water-supply, drainage, and sewerage. Pneumatics, in reference to warming and ventilation. Meteorology, and methods of making meteorological observations. Mensuration, in reference to the plans and sections of public and private buildings, mines, water works, and sewers. (3.) Sanitary Law: Knowledge of the leading Sanitary Acts of Parliament. (4.) Vital Statistics: Knowledge of statistical methods and data in reference to population, births, marriages, and deaths.

*Second Examination.*—(1.) Medicine: Origin, nature, and propagation of epidemic and contagious diseases; prevention of contagion and infection; endemic diseases and the geographical distribution of disease; insalubrious trades; overcrowding; epizootics, including pathological changes. (2.) Practical Sanitation: Duties of a Health Officer in reference to water-supply, insalubrious dwellings and public buildings, removal and disposal of sewage and other refuse and impurities, cemeteries, nuisances from manufactories, etc., bad or insufficient supplies of food, outbreaks of zymotic diseases, quarantine, disinfectants and deodorisers, construction of permanent and temporary hospitals. The written examinations will take place on October 23 and 24, 1874, and April 1 and 2, 1875, at twelve o'clock each day.

*Examination.*—First day, Chemistry and Physics; second day, Sanitary Law and Vital Statistics. An oral examination and an examination in Practical Chemistry in the Laboratory will take place a few days after the written examination. Candidates who intend to present themselves for examination in October are required to lodge with the clerk of the University proof of their being eligible, and to pay the fee on or before October 7; and for the examination in April on or before March 7.

DOCTOR OF SCIENCE.

Bachelors of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department, on producing evidence that they have been engaged in practical sanitation since they received the degree of Bachelor of Science, and on presenting a thesis on some subject embraced in the Department of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the Examiners.

Candidates for the degree of D.Sc. must lodge their theses with the Dean of the Medical Faculty on or before January 31 in the year in which they propose to graduate. No thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

The fees for the degrees in Science in the Department of Public Health shall be—For the first B.Sc. in Public Health Examination, £5 5s.; for the second B.Sc. in Public Health Examination, £5 5s.; for the degree of D.Sc. in Public Health, £5 5s.—total, £15 15s.

The degrees in Science are conferred at the graduation ceremonial in April. The following are recommended as books to be studied in preparation for the above Examinations:—Parkes, E., "Practical Hygiene"; Wilson, George, "Handbook of Hygiene"; Smith, Edw., "Manual for Public Officers of Health," and "Handbook for Inspectors of Nuisances"; Michael, Corfield, and Wanklyn, "Manual of Public Health," edited by E. Hart; Latham, Baldwin, "Sanitary Engineering"; Law, Henry, "Rudiments of Civil Engineering"; Monro, Geo., "The Public Health (Scotland) Act"; and Buchan, Alex., "Introductory Text-book of Meteorology."

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## UNIVERSITY OF ST. ANDREWS.

The regulations for granting medical degrees are framed in conformity with an ordinance of the Universities (Scotland)

Commissioners; they therefore generally correspond with those of the Universities of Edinburgh, Aberdeen, and Glasgow.

The degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum and examinations for these degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for candidates for the degrees of Bachelor of Medicine and Master in Surgery present some difference:—

No one shall be received as a candidate for the degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities and colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specified, or in the hospital schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court.

Attendance on the lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen shall not be reckoned for graduation in St. Andrews if the fee for such lectures be of less amount than is charged for the like course of lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

FEES FOR GRADUATION.

For the degree of Bachelor of Medicine, five guineas in respect of each of the three divisions of the examination on professional subjects; and if the candidate desires to be admitted to the degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but if he desires to be admitted to the degree of Master in Surgery also, he shall, on being admitted to such degree, pay a further fee of five guineas; and every candidate for the degree of Doctor of Medicine, who has previously obtained the degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a candidate for the degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

N.B.—The degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, to entitle him to that degree, and who shall, on examination, satisfy the Medical Examiners of the sufficiency of his professional knowledge; provided always, that degrees shall not be conferred under this section to a greater number than ten in any one year. Fee £52 10s.

*Supplementary Medical Regulations.*—As regards registered medical practitioners above the age of forty years, the Examinations are held in the University Library, annually, in April. The graduation fee is fifty guineas. Candidates must lodge with the Dean of the Medical Faculty the following certificates, along with application for admission to examination:—1. A certificate of age, being a baptismal certificate, or an affidavit of age. 2. Holograph certificates from at least three medical men of acknowledged reputation in the profession, or in the medical schools, recommending the candidate to the Senatus for the degree of M.D., and testifying to his professional position and skill. As only ten can graduate in each year, candidates are selected whose service and certificates seem, to the Medical Faculty, to present the highest professional claims; but where these seem equal, preference is given to priority of application and to age. 3. Candidates, when notified for examination, will remit a portion of the graduation fee—viz., £10 10s. This sum shall be forfeited should the candidate fail to appear, or to graduate, at the time appointed. 4. A satisfactory examination, written and *vivâ voce*, must be passed in the following departments:—(1) Materia Medica and General Therapeutics, (2) Medical Jurisprudence, (3) Practice of Medicine and pathology, (4) Surgery, (5) Midwifery and Diseases of Women and Children.

## UNIVERSITY OF ABERDEEN.

The regulations for granting medical degrees are framed in conformity with an Ordinance of the Universities (Scotland) Commissioners, dated March 16, 1861, and approved by her Majesty in Council.

The following are the degrees in Medicine granted by this University—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum, and examination for the degrees of M.B., C.M., and M.D. being in conformity with the Ordinances of the Scotch Universities Commissioners, are nearly the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of medical and surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other university entitled to give the degree of Doctor of Medicine.

FEES FOR GRADUATION.

1. Each candidate for the degree of M.B. shall pay a fee of £5 5s. in respect of each of the three professional examinations.

2. If the candidate desires to be admitted to the degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the £15 15s. so paid by him; but if he desires to be admitted to the degree of Master in Surgery also, he shall, on being admitted to such degree, pay a further fee of £5 5s.

3. And every candidate for the degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the degree of Bachelor of Medicine, a fee of £5 5s., exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

Further information may be obtained from the Dean of the Medical Faculty, Professor Macrobin, M.D.

## UNIVERSITY OF GLASGOW.

Three degrees in Medicine are granted, viz.:—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). [The preliminary examination, curriculum, and professional examinations for these degrees, being in conformity with the ordinance of the Scottish Universities Commissioners, are the same as for the Universities of Edinburgh, St. Andrews, and Aberdeen.]

Of the four years constituting the curriculum, one at least shall have been passed in the University of Glasgow, and another either in that University or in some other university entitled to give degrees in Medicine.

The fees for the degrees are as follows:—For the degree of M.B. (for each of three examinations, £5 5s.), £15 15s.; for that of C.M. (in addition to the fee for M.B.), £5 5s.; for the degree of M.D. (in addition to the fee for M.B.), £5 5s.; and the Government stamp for the diploma, etc., £10 3s.

The preliminary examinations of medical students in branches of general education take place at the beginning and at the end of the winter session.

The regulations under which the above degrees are granted, and the notices of the subjects of examination, will be obtained by application to the Registrar of the University.

## ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

ABSTRACT OF REGULATIONS FOR THE LICENCE.

No one can obtain the licence of the College until he has completed the age of twenty-one years.

Every applicant for the licence must produce evidence that he has been engaged in the study of Medicine during a period of at least four years subsequently to his registration as a medical student, which period shall include attendance during not less than four winter sessions, or three winter and two summer sessions, at a recognised medical school.

The applicant must produce certificates that he has attended the following courses at a university, or at some medical school recognised by the College:—Anatomy, one course, six months; Practical Anatomy, six months; Chemistry, one

course, six months; Practical Chemistry, three months; Materia Medica and Pharmacy, one course, three months; Physiology or Institutes of Medicine, one course, three months; Practice of Medicine, one course, six months; Clinical Medicine, six months; Principles and Practice of Surgery, one course, six months; Clinical Surgery, three months; Midwifery, one course, three months; Medical Jurisprudence, one course, three months; Pathological Anatomy, one course, three months; or General Pathology, one course, three months; Practical Pharmacy, three months.

The applicant must also produce evidence of having attended the practice of a public hospital (containing not fewer than eighty beds) during a period of not less than twenty-four months, twelve of which must have been spent in attendance on the medical wards. He must also have attended for six months the practice of a public dispensary, or have acted for six months as a clinical clerk or dresser in a hospital, or have been engaged for six months as visiting assistant to a registered practitioner.

The applicant must also have attended at least six cases of labour under the superintendence of a qualified medical practitioner, and must produce a certificate to that effect.

The applicant will also be required to produce a certificate that he has studied vaccination under a competent and recognised teacher, and that he is thoroughly informed in every necessary part of the subject.

Every applicant for the licence must have passed the preliminary examination in Literature and Science, and have had his name inscribed in the Register of Medical Students, instituted by the General Medical Council, previous to the commencement of his medical studies.

The preliminary examination is as in the conjoint examination (*vide post*).

The professional examination will be divided into two parts, according to the following arrangements of subjects:—(1) Anatomy, Physiology, Chemistry; (2) Materia Medica and Pharmacy, Pathology, and Pathological Anatomy, Practice of Medicine, Surgery, Midwifery, Medical Jurisprudence, Clinical Medicine, including the examination of patients, as well as of various morbid products. No candidate will be admitted to the first examination until he has completed two, or to the second until he has completed four, years of professional study. The examinations will be conducted partly *viva voce*, partly by written papers.

The following will be the periods of examination up to October, 1875:—(1) Preliminary Examinations in Literature and Science: Tuesday and Wednesday, October 20 and 21, 1874; Tuesday and Wednesday, April 20 and 21, 1875; Saturday and Monday, July 24 and July 26, 1875. (2) First Professional Examinations: Wednesday, October 14, 1874; Wednesday, January, 20, 1875; Wednesday, April 21, 1875; Wednesday, July 28, 1875; Wednesday, October 13, 1875. (3) Second Professional Examinations will be held on the Thursdays and Fridays following the First Professional, and will occupy both days.

The fee payable by a licentiate is ten guineas. In the event of a candidate being unsuccessful at his examination, the sum of two guineas will be retained to defray expenses.

## ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

### PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

Preliminary examination in general education is as in the conjoint examination. The following will be the periods of examination for the year 1874-75:—

*Preliminary Examinations in General Education.*—On Tuesday and Wednesday, October 20 and 21, 1874; on Tuesday and Wednesday, April 20 and 21, 1875; on Saturday and Monday, July 24 and 26, 1875.

### PROFESSIONAL EDUCATION.

1. Candidates commencing professional study after September 16, 1866, must have been engaged during four years after passing the examination in general education,(a) in professional study, which shall include not less than four winter sessions' or three winter and two summer sessions' attendance at a recognised medical school.(b)

2. The Candidates must produce certificates of having attended the following separate and distinct courses of lectures:—

Anatomy, two courses,(c) six months each. Practical Anatomy, twelve months. Or, in the option of the candidate, Anatomy, one course, six months; Practical Anatomy, eighteen months. Chemistry, one course, six months. Practical or Analytical Chemistry, one course, three months. Materia Medica, one course, three months. Physiology, not less than fifty lectures.(d) Practice of Medicine, one course, six months. Clinical Medicine, one course, six months.(e) Principles and Practice of Surgery, one course, six months. Clinical Surgery, one course, six months.(e) Surgery—a third course, which may be either Principles and Practice of Surgery or Clinical Surgery, at the option of the candidate, one course, six months.(e) Midwifery and the Diseases of Women and Children, one course, three months. Medical Jurisprudence, one course, three months. The six-months' courses delivered in Scotland must consist of not fewer than one hundred lectures, with the exception of Clinical Medicine and Clinical Surgery. The three-months' courses must consist of not fewer than fifty lectures.

3. Besides the above-mentioned courses of lectures, the candidate must produce the following certificates:—(*a*) Of having attended six cases of Labour under the superintendence of the practitioner who signs the certificate, who must be a registered medical practitioner. (*b*) Of having attended, for three months, instructions in Practical Pharmacy; the certificate to be signed by the teacher, who must be a member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a public hospital or dispensary, or a registered medical practitioner who dispenses medicines to his patients. (*c*) Of having attended, for twenty-four months, a public general hospital containing at an average at least eighty patients. (*d*) Of having attended, for six months, the practice of a public dispensary specially recognised by the College; or, of having been engaged for six months as visiting assistant to a registered practitioner. (*e*) Of having been instructed in Vaccination. The certificate to be signed by the teacher, who must be a registered practitioner.(f) (*f*) Of having attended, for three months, the post-mortem room of a recognised hospital: this rule applies to all who commenced professional study after October 1, 1861.

4. It is strongly recommended to students to avail themselves of any opportunities which they may possess of attending, in addition to the courses of instruction which are absolutely prescribed, lectures on Ophthalmic and Mental Diseases, also on Botany, Zoology, and Comparative Anatomy, and of obtaining practical instruction in the use of the microscope.

### PROFESSIONAL EXAMINATIONS FOR THE DIPLOMA OF THE COLLEGE.

1. Candidates for the diploma of the College shall be subjected to two professional examinations, to be conducted at separate sittings, partly in writing and partly orally.

2. Opportunities for both examinations will be presented five times in each year. On each of these occasions the candidates shall assemble to write answers to the questions proposed, and the oral examinations shall be conducted on the days immediately succeeding.

3. Unsuccessful candidates either at the first or second examination will be remitted to their studies for a period to be determined by the judgment of the examiners, but not in any case less than three months.

### FIRST EXAMINATION.

4. The first examination shall embrace Anatomy, Phy-

(a) *See* the laws relating to registration.

(b) Candidates commencing professional study before September 16, 1866, will be admitted to their final examination after four winter sessions or three winter and two summer sessions' attendance at a recognised medical school. The attention of medical students is particularly directed to the fact, that, by the regulations issued by the General Medical Council, every medical student who entered on his studies after September 16, 1866, must have passed the complete examination in general education before he can be placed on the Register of Medical Students established by the General Council; and that, by the same regulations, no one can be admitted to his final examination, or can be placed on the Register of Medical Practitioners, in virtue of any qualification in Medicine or Surgery, until a period of four years has elapsed from the date of his registration as a medical student.

(c) The two courses must not be attended in the same session.

(d) In those schools of England and Ireland in which two separate courses of lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these courses will be received as a course of Anatomy, and the other as a course of Physiology.

(e) Two courses of Clinical Medicine of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the period of attendance at the hospital where they are delivered. The same rules apply to Clinical Surgery.

(f) By a regulation of the Privy Council, of date December 1, 1859, no one can be appointed as a contractor for vaccination under the English Poor-law, who does not produce a certificate of proficiency in vaccination from a person authorised by the Privy Council to grant the same.

siology, and Chemistry; and shall take place not sooner than the end of the second winter session.

5. Candidates who desire to pass the first professional examination must apply to the Secretary at 43, Charlotte-square, Edinburgh, on or before the Saturday preceding the day of examinatiou,(g) and must produce certificates of attendance in regard to all those courses of instruction which have reference to the subjects of that examination. They must also produce evidence of having passed the preliminary examination.

6. The sum of £4 must be paid to the Treasurer of the Collcge at 45, Northumberland-street, Edinburgh, for this examination, not later than 10 a.m. of the day preceding it. This sum will be considered as paid to account of the entire fee of £10 payable for the diploma.(h)

7. In the case of a candidate being unsuccessful at this examination, £2 will be returned to him, the remaining £2 being retained to meet the expense of conducting the examination.

*First Professional Examinations.*—On Tuesday, October 27, 1874; on Tuesday, January 26, 1875; on Tuesday, April 6, 1875; on Tuesday, April 27, 1875; on Tuesday, July 27, 1875.

SECOND EXAMINATION.

8. The second examination shall embrace Surgery and Surgical Anatomy; also Medicine, Midwifery, Materia Medica, and Medical Jurisprudence; and shall not take place before the terminuation of the winter session of the last year of study. In the case of candidates who began their course of study after September 16, 1866, it will not take place till four years after the examination in general education (see chap. iii. 1 of College Regulations).

9. Applications for examination must be made to the Secretary not later than the Tuesday previous to the day of the examination.(i)

10. Every candidate must produce to the Secretary, 43, Charlotte-square, Edinbugh,—1st. Satisfactory evidence of his having attained the age of twenty-one years, and of having been duly registered (see chap. iv.); 2nd, Certificates of having attended the classes enumerated in chap. iii., sec. 2, together with the other certificates enumerated in chap. iii., sec. 3;(k) 3rd, The certificate of his having passed the first professional examination; and, 4th, A tabular statement (for which a printed form will be furnished by the officer) exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session of his studies. If he have been an apprentice he must also insert the name of his master, the date of his indenture, and the length of time for which he was bound. This statement, accurately filled up, must be attested by his signature, and will be preserved by the College as a record.

11. If the candidate have been an apprentice to a Fellow of the College, he must also produce his discharged indenture.

12. On the production of these documents, the Secretary will give the candidate a letter authorising the examiners to receive him as a candidate.

13. The remaining fee payable to the College (being £6), together with the receipt for the fee paid for the first professional examination, must be lodged not later thau 10 a.m. of the day preceding the examination-day, in the hands of the Treasurer, at 45, Northumberland-street, Edinburgh, who will certify this upon the Secretary's letter. The sum of £4 will be returned to unsuccessful candidates.

14. Candidates who have passed the first examination in Anatomy, Physiology, and Chemistry, at any of the licensing boards recognised by the Medical Act, will be admissible to the second professional examination on producing certificates of the whole course of study, of having passed their preliminary and first professional examinations, and of having been registered according to chap. iv. If any of the three subjects of the first professional examination have been omitted,(l) such candidates will have to undergo the first examination on the omitted subjects; and none of the subjects of the second examination (sec. 8) will be omitted, even if some of them should have formed part of the first examination by another board. The fee will be £10. Unsuccessful candidates under this regulation will receive back £8.

15. Candidates desirous of special examinations on other days than those fixed by the regulations, must prepare a case to be submitted to the consideration of the authorities of the College, with evidence to show why it was and is impossible for them to avail themselves of the ordinary examinations, past or future. They must *at the same time produce certificates of the whole of the prescribed course of study, and of having passed the preliminary examination, and must state the earliest and the latest days within which they can present themselves.*(m) It is very desirable that all such candidates, and especially those who are at a distance from Edinburgh, should present their applications as long beforchand as possible.

The fees for special examinations, which must be lodged by 10 a.m. of the day preceding the examination day, are as follows—viz., £20 for first and second examinations, of which £15 will be returned to candidates remitted on the first examination, and £6 to candidates successful in the first, but unsuccessful in the second examination. £17 for secoud examination when the candidate has passed the first uuder the conditions of chap. v., sec. 14. Of this £10 will be returned to the candidate if unsuccessful. £13 for second examination when the candidate has passed the first examination before the examiners of the College. Of this £6 will be returned to the candidate if unsuccessful. N.B.—Each of the two professional examinations requires one day for the written part of the examination. The clinical and oral will follow on a subsequent day.

16. In order to test more effectually the practical knowledge of candidates, recent dissections, anatomical specimens, and articles of the materia medica will be employed during the examinations; and all candidates will be required to write out formulæ of prescriptions. They will also be subjected to a practical clinical examination in the surgical hospital, including the application of surgical apparatus, bandages, etc.

17. No candidate shall be admissible to examination who has been rejected by any other licensing board within the three months preceding his application to be examined.

18. The sums stated in the various sections of this and the preceding chapter include all fees of every kind, and the officer is prohibited from receiving any.

*Seeond Professional Examinations.*—Thesc will take place immediately after the conclusion of the First Professional Examinations, at each of the above-mentioned periods. They will generally be begun on the Thursday succeeding to the day of the first examination, and in no case on any earlier day. As frequent instanccs have occurred of inattention to the times for lodging the certificates and the fees of candidates (chap. v., 5, 6, 9, 13), causing great disappointment to themselves, it is hereby notified that, unless these rules are exactly observed, the examinations of such candidates may require to bc postponed. The safest and best method of remitting money is by an order payable at a bank in Edinburgh to Dr. John Gairdner, the Treasurer, and crossed in the usual manner.

(g) Candidates at a distance are requested to send their certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters, as much disappointment has been occasioned by the discovery of defects in their course of study when it was too late to rectify them by the production of documents.

(h) The fee payable for the diploma by apprentices of those who were Fellows of the College prior to the charter of 1851 is £5.

(i) *See* note (g).

(k) Printed forms for receiving the certificates of teachers are not issued by the College, but such certificates will be accepted for whatever part of the course of study is attested in them.

(l) In none of these three subjects will the success of a candidate in the preliminary examinations in general education be held sufficient.

## THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.

THE CONJOINT EXAMINATION.

The Royal College of Physicians of Edinburgh, and the Royal College of Surgeons of Edinburgh, while they still continue to give their diplomas separately, under separate regulations, have made arrangemeuts by which, after one series of examinations, the studeut may obtain the diplomas of both Colleges.

The general principle of this joiut examination is, that it shall be conducted by a Board, in which each body is represented in those brauches which are commou to both Medicine and Surgery; but that the College of Physicians shall take exclusive charge of the examination iu Medicine, aud the College of Surgeons of the examination in Surgery.

The object of the joiut examinatiou is to give to students facilities for obtaining from two separate bodies, aud at less expense, a qualification in Medicine, and a qualification in Surgery.

(m) Special attention is requested to the italics in this regulation.

Students passing that examination successfully, will be enabled to register two qualifications under the Medical Act:—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

The arrangement for thus conferring a double qualification by the co-operation of the two Colleges, is in conformity with Section XIX. of the Medical Act, and received the special sanction of the General Council of Medical Education and Registration, at a meeting held on August 7, 1859.

The attention of medical students is particularly directed to the fact, that it is required by the regulations issued by the General Medical Council, that after September 16, 1866, every medical student shall have passed the complete examination in General Education *before* he can be placed on the Register of Medical Students established by the Council; and that no one can be admitted to his final examination, or can be placed on the Register of Medical Practitioners in virtue of any qualification in Medicine or Surgery, until a period of four years has elapsed from the date of his registration as a medical student.

### III.—PROFESSIONAL EDUCATION.

1. Candidates commencing professional study after September 16, 1866, must have been engaged during four years after passing the examination in general education,(a) in professional study, which shall include not less than four winter sessions', or three winter and two summer sessions' attendance at a recognised medical school.(b)

2. The candidate must produce certificates of having attended the following separate and distinct courses of lectures:—Anatomy, two courses,(c) six months each; Practical Anatomy, twelve months. Or, in the option of the candidate, Anatomy, one course, six months; Practical Anatomy, eighteen months. Chemistry, one course, six mouths. Practical or Analytical Chemistry, one course, three months. Materia Medica, one course, three months. Physiology, not less than fifty lectures.(d) Practice of Medicine, one course, six mouths. Clinical Medicine, one course, six months.(e) Medicine—a third course, which may either be Practice of Medicine or Clinical Medicine at the option of the student, one course, six months.(e) Principles and Practice of Surgery, one course, six months. Clinical Surgery, one course, six months.(e) Surgery—a third course, which may either be Principles and Practice of Surgery or Clinical Surgery at the option of the student, one course, six months.(e) Midwifery and the Diseases of Women and Children, one course, three months. Medical Jurisprudence, one course, three months. Pathological Anatomy, one course, three months.(f) The six months' courses delivered in Scotland must consist of not fewer than one hundred lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' courses must consist of not fewer than fifty lectures.

3. The candidate must also produce the following certificates:—(*a.*) Of having attended six cases of Labour under the superintendence of the practitioner who signs the certificate, who must be a registered medical practitioner. (*b.*) Of having attended, for three months, instruction in Practical Pharmacy; the certificate to be signed by the teacher, who must be a Member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicine to his patients. (*c.*) Of having attended for twenty-four months, a public general hospital containing, on an average, at least eighty patients. (*d.*) Of having attended, for six months, the practice of a public dispensary specially recognised by either College; or, of having been engaged for six months as visiting assistant to a registered practitioner. (*e.*) Of having been instructed in Vaccination; the certificate to be signed by the teacher, who must be a registered practitioner.(g)

4. It is strongly recommended to students to avail themselves of any opportunities which they may possess of attending, in addition to the courses of instruction which are absolutely required, lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the microscope.

### IV.—PRELIMINARY EXAMINATION IN GENERAL EDUCATION AND REGISTRATION.

1. All students who intend becoming candidates for the diplomas of the Colleges must have passed the complete examination in general education, and have had their names inscribed in the Register of Medical Students instituted by the General Medical Council,—at the commencement of their professional studies.

2. The preliminary examination in general education for the double qualification in Medicine and Surgery conferred conjointly by the Royal Colleges of Physicians and Surgeons, and also for the separate diploma of each College, for 1874-75, will embrace the following subjects:—1. English Language, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including Simple Equations. 4. Geometry; first two books of Euclid. 5. Latin; Translation from Latin into English, Parsing, and rendering English correctly into Latin, the Latin words being supplied. 6. One of the following subjects, at the option of the candidate:—(1.) Greek. (2.) French. (3.) German. (4.) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. In Latin the books prescribed to be translated from are either Cicero de Senectute et de Amicitia *or* Horatii Carmina Lib. II. et III.; and the candidate, besides selecting either of these two at his option, will be required to translate a passage from an unprescribed author. In Greek, the books required are Herodotus' History, Book I., and Homer's Iliad, Book II. On each occasion translation from both the books prescribed is required, also parsing from the passages translated, and derivations of English words fram the Greek. In French the book prescribed is Voltaire's "Henriade." Parsing and translation of short sentences from English into French are also required. In German the book prescribed is Schiller's "Wilhelm Tell." Parsing and translation of short sentences from English into German are also required. The examinations will be held on the following days, beginning each day at twelve o'clock:—Tuesday, October 20, and Wednesday, October 21, 1874; Tuesday, April 20, and Wednesday, April 21, 1875; and Saturday, July 24, and Monday, July 26, 1875. On each occasion the subjects of the first day's examination will consist of English, Latin, and Geometry, and those of the second day of Arithmetic, Algebra, and the optional subjects. Candidates are required to give in their names to the officer of either College not less than two days prior to the day of examination. Each candidate shall pay a fee of 10s. previous to the examination. In the event of the candidate being unsuccessful, he shall be allowed to appear again for examination without paying a fee. A certificate of having passed all the required subjects of the above examination entitles the possessor, on commencing attendance on medical classes, to be registered as a medical student in the form required by the regulations of the General Medical Council, and, provided the candidate passes in three books of Euclid, is also admitted *pro tanto* by the Medical Faculty of the University of Edinburgh as an equivalent for the corresponding subjects of their matriculation examination. A list of Examining Boards in the United Kingdom and in the Colonies, whose certificate is received by the Royal Colleges, on the recommendation of the General Medical Council, as equivalent to the above, will be found in the Appendix to the Regulations of the Colleges.

3. Candidates, the commencement of whose professional studies was prior to September 17, 1866, may pass the preliminary examination in general education at any of the periods previous to the first professional examination, but are recommended to do so at the earliest possible period. Candidates under this regulation who have not passed a preliminary examination in general education, will be admitted to a special examination in general education previously to their

(a) *See* the laws relating to registration.

(b) Candidates commencing study prior to the above date, will be admitted to examination after four winter sessions', or three winter and two summer sessions' attendance on classes at a regular medical school. (See Ch. iv. 6).

(c) The two courses must not be attended in the same session.

(d) In those schools of England and Ireland in which two separate courses of lectures are delivered at separate hours—one on Anatomy; the other on Anatomy and Physiology—the former of these courses will be received as a course of Anatomy, and the other as a course of Physiology.

(e) Two courses of Clinical Medicine, of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the period of attendance at the hospital where they are delivered. The same rules will apply to Clinical Surgery.

(f) A certificate of attendance on the post mortem examination at a general hospital will be accepted in lieu of this course.

(g) By a regulation of the Privy Council, dated December 1, 1859, no one can be appointed as a contractor for vaccination under the English Poor-law who does not produce a certificate of proficiency in vaccination from a person authorised by the Privy Council to grant the same.

first professional examination. For this they shall pay a fee of £1.

4. Certificates of having passed the examinations in general education conducted by certain educational bodies will be accepted as equivalent to those of the Colleges.

V.—PROFESSIONAL EXAMINATIONS.

1. Candidates for the double qualification shall be subjected to two professional examinations, to be conducted at separate times, partly in writing and partly orally.

2. Opportunities for both examinations will be presented six times in each year. On each of these occasions the candidates shall assemble for the purpose of writing answers to the questions proposed. The oral examinations will be conducted on the days immediately succeeding. The periods of both examinations for the next twelve months will be found at the end of this chapter.

3. Candidates who are unsuccessful, either at the first or second examination, shall be remitted to their studies for a period to be determined by the judgment of the examiners, but not in any case less than three months.

4. The first examination shall embrace Anatomy, Physiology, and Chemistry; and shall take place not sooner than the end of the second winter session.

5. Candidates who desire to pass the first professional examination must apply to the Inspector of Certificates on or before the Saturday preceding the day of examination,(h) and must produce certificates of attendance in regard to all those of the courses of lectures (enumerated in chap. iii. 2) which have reference to the subjects of that examination. They must also produce a certificate of having passed the preliminary examination.

6. The sum of £6 must be paid to the Inspector of Certificates for this examination, not later than 10 a.m. of the day preceding it. This sum will be considered as paid to account of the entire fee of £16 payable for the two diplomas.

7. In the case of a candidate being unsuccessful at this examination, £4 will be returned to him; the remaining £2 being retained to meet the expense of conducting the examination.

8. The second examination shall embrace Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and shall not take place before the termination of the winter session of the last year of study. In the case of candidates who began their course of study after September 16, 1866, it will not take place till four years after the examination on general education. (See chap. iii. 1.)

9. Applications for examination must be made to the Inspector of Certificates not later than the Tuesday previous to the day of examination.(i)

10. Every candidate must produce to the Inspector,—1st, Satisfactory evidence of his having attained the age of twenty-one years; 2nd, A certificate of his having passed the preliminary examination, unless this certificate have already been seen by the Inspector of the Colleges; 3rd, A certificate of his registration in the books of the General Medical Council (see chap. iv.); 4th, A certificate of his having passed the first professional examination; 5th, The certificates of the classes enumerated in chap. iii., sec. 2, and the other certificates enumerated in chap. iii., sec. 3;(k) and 6th, A tabular statement (for which a printed form will be furnished by the Inspector), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session of his studies. The tabular statement, accurately filled up, must be attested by his signature, and will be preserved by the Colleges as a record.

11. The fee payable for this examination, which shall be £10, must be lodged with the Inspector not later than 10 a.m. of the day preceding the examination day.

12. On the production of the above documents, and after receiving the fees, the Inspector shall give the candidate a letter authorising the examiners to take him on trial.

13. In case of a candidate being unsuccessful at the second examination, £8 will be returned to him; the remaining £2 being retained to meet the expense of conducting the examination.

14. Candidates who have passed the first professional examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second professional examination, on producing certificates of the whole course of study prescribed, of having passed their preliminary and first professional examinations, and of having been registered according to chap. iv. If any of the three subjects of the first professional examination(l) have been omitted, such candidates will have to undergo an examination on the omitted subects; and none of the subjects of the second examination will be omitted (sec. 8), even if some of them should have formed part of the first examination by another board. The fee payable by such candidates is £16, and unsuccessful candidates will receive back £14.

15. In addition to the written and oral examinations, all candidates shall be subjected to practical clinical examinations in Medicine and Surgery, which shall include the examination of patients, physical diagnosis, the use of the microscope, surgical appliances, bandages, etc.

16. Candidates desirous of special examinations on other days than those fixed by the regulations, must prepare a case to be submitted for the consideration of the authorities of the Colleges, with *evidence to show why it was and is impossible for them to avail themselves of the ordinary examinations, past or future. They must at the same time produce certificates of the whole of the prescribed course of study and of the preliminary examination, and state the earliest and the latest days within which they can present themselves.* It is very desirable that all such candidates, and especially those who are at a distance from Edinburgh, should present their applications as long beforehand as possible.(m)

The fees for special examinations, which must be lodged with the inspector not later than 10 a.m. of the day preceding the examination-day, are as follows:—£28 for first and second examinations, of which £22 will be returned to candidates remitted on the first examination, and £10 to candidates successful in the first, but unsuccessful in the second examination. £25 for second examination, when the candidate has passed the first under the conditions of chap. v., sec. 14. Of this £16 will be returned to the candidate if unsuccessful. £19 for second examination, when the candidate has passed the first before the examiners for the double qualification. Of this £10 will be returned to the candidate if unsuccessful.

N.B.—Each of the two professional examinations requires one day for the written examination. The clinical and oral examinations will follow on a subsequent day.

17. No candidate shall be admissible to examination who has been rejected by any other licensing board within the three preceding months.

The following are the dates of the regular professional examinations conducted by the two Colleges:—

*First Professional Examinations.*—On Tuesday, November 3, 1874; on Tuesday, February 2, 1875; on Tuesday, April 13, 1875; on Tuesday, May 4, 1875; on Tuesday, July 20, 1875; on Tuesday, August 3, 1875.

*Second Professional Examinations.*—These will take place immediately after the conclusion of the first professional examinations, at each of the above-mentioned periods. In no case will they be begun on an earlier day than the Thursday of any period, nor will they usually be later than that day.

(h) Candidates at a distance are requested to send their certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters, as much disappointment has been occasioned by the discovery of defects in their course of study when it was too late to rectify them by the production of documents.

(i) *See* note (h).

(k) Printed forms for receiving the certificates of teachers are not issued by the Colleges, but such certificates will be accepted by them for whatever part of the course of study is attested in them.

(l) In none of these three subjects will it be held sufficient that the candidate has passed one of the boards authorised to conduct the preliminary examinations in general education.

(m) Special attention is requested to the italics in this regulation.

## FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

ABSTRACT OF REGULATIONS FOR THE LICENCE, 1874-75.

*Course of Study.*—1. Anatomy, two courses, six months each. 2. Practical Anatomy, twelve months. 3. Chemistry, one course, six months. 4. Practical or Analytical Chemistry, one course, three months. 5. Physiology not less than fifty lectures. 6. Practice of Medicine, one course, six months. 7. Clinical Medicine, one course, six months. 8. Principles and Practice of Surgery, one course, six months. 9. Clinical Surgery, one course, six months. 10. In addition to the above

courses of Surgery and Clinical Surgery, one six months' course of either of these at the option of the student; Materia Medica, one course, three months. 11. Midwifery and the Diseases of Women and Children, one course, three months. 12. Medical Jurisprudence, one course, three months. 13. Practical Midwifery, attendance on at least six cases of labour. 14. Pathological Anatomy, three months' instruction in the post-mortem room of a recognised hospital. 15. Practical Pharmacy, three months' practical instruction. 16. Hospital and Dispensary Practice, twenty-four months' attendance on the practice of a public general hospital containing on the average at least eighty patients.

A certificate of proficiency in vaccination, from a vaccine institution recognised by the Faculty, will be required of every candidate. Candidates (not exempted from registration) must have been engaged in professional study during four years from the date of registration, which shall include not less than four winter sessions' or three winter and two summer sessions' attendance at a recognised medical school.

Candidates are subjected to two professional examinations. The first examination embraces Anatomy, Physiology, and Chemistry, and cannot be undergone before the end of the second winter session of study.

The second examination embraces Surgery and Surgical Anatomy, Medicine, Materia Medica, Midwifery, and Medical Jurisprudence, and cannot be undergone before the termination of the full period of study.

Intending candidates for the second examination must produce evidence—1st, of being twenty-one years of age; and 2nd, of having passed the first examination. They will also present to the Secretary for inspection their class and hospital certificates, and write out a tabulated statement of their whole course of study, for which the Secretary, on application, will supply candidates with printed forms.

The fee for the diploma is £10—£4 for the first, and £6 for the second examination.

The first examination is held on the second Tuesday of every month. The second examination is also held on the second Tuesday of every month, and is continued on the succeeding day.

Candidates who possess a qualification to practise, or who have passed the examination in Anatomy, Physiology, and Chemistry before any of the licensing boards, will be admitted to the second examination on producing evidence of having attended the full curriculum, and paying the fee of £10.

DOUBLE QUALIFICATION.

The Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, while they still continue to give their diplomas separately, under separate regulations, have made arrangements by which, after one series of examinations, the student may obtain two separate licences —one in Medicine, and one in Surgery.

The fee for the two diplomas granted conjointly is £16—£6 for the first, and £10 for the second examination.

The first examination for the double qualification will be held in the Faculty Hall, Glasgow, on October 8, 1874, January 14, April 1, May 6, and July 22, 1875, and on each occasion it will be continued on the succeeding day. The second examination will be held, the written part on each of the above days, and the oral part on the succeeding day. Applications to be admitted, either to the first or second examination, must be made to the Secretary of the Faculty not later than the Monday preceding the examination.

PRELIMINARY EXAMINATIONS CONDUCTED BY THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, SESSION 1873-74.

1. Preliminary examinations in general literature, in accordance with the regulations of the General Medical Council, will be held in the Faculty Hall during the session 1874-75, on the following days, commencing at eleven o'clock, viz.:—Friday, October 9, and Friday, October 30, 1874; Friday, April 23, and Friday, July 23, 1875; and on each occasion the examination will be continued on the succeeding day.

The examination will embrace the following subjects:—1. English Language. 2. Latin. 3. Arithmetic; Algebra. 4. Geometry. 5. One of the following subjects at the option of the candidate:—(1.) Natural Philosophy—Mechanics, Hydrostatics, and Pneumatics. (2.) Greek. (3.) French. (4.) German.

The fee for the examination and certificate is 10s., payable to the Secretary previous to the examination.

## FACULTY OF MEDICINE IN IRELAND.

### UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES, AND LICENCES TO PRACTISE.

The following bodies grant one or more degrees or licences to practise Medicine or Surgery, and provide courses of instruction in the Medical Sciences:—The University of Dublin grants the degrees of M.B. or Bachelor of Medicine; M.D. or Doctor of Medicine; M.Ch. or Master of Surgery; and B.Ch. or Bachelor of Surgery; also licences in Medicine (L.M.) and Surgery (L.S.). In connexion with the University, Trinity College gives a diploma in State Medicine, after examination, to Doctors of Medicine of Dublin, Oxford, or Cambridge. The Queen's University in Ireland, with its Provincial Colleges at Belfast, Cork, and Galway: This University confers the degrees of M.D. and M.Ch. The King and Queen's College of Physicians in Ireland grants a licence and a Fellowship. This institution, in connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland grants letters testimonial qualifying to practise Surgery as a Licentiate, and also confers a Fellowship. Fellows and Licentiates of the Colleges of Physicians and Surgeons may obtain from their respective colleges a diploma in Midwifery. The Rotundo and Coombe Lying-in Hospitals grant diplomas in Midwifery, which are, however, not recognised under the Medical Act. The Governor and Company of the Apothecaries' Hall of Ireland also confer a diploma.

The medical session in Ireland commences about November 1.

### UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC.

The School of Physic in the University of Dublin is under the joint control of the Board of Trinity College and of the President and Fellows of the College of Physicians.

MATRICULATION.

All students of the School of Physic must be matriculated by the Senior Lecturer of Trinity College, for which a fee of 5s. is payable. No student can be admitted for the winter courses after November 25.

DEGREES AND LICENCES IN MEDICINE AND SURGERY.

The Act 21 and 22 Vict., c. 99, recognises, as qualifications for medical and surgical practitioners, the degrees and licences in Medicine and Surgery granted by the University. The degrees are—1. Bachelor of Medicine. 2. Doctor of Medicine. 3. Master in Surgery.

UNIVERSITY DEGREES.

1. *Bachelor in Medicine.*—A candidate for the degree of Bachelor in Medicine must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same commencement as that at which he receives his degree of B.A., or at any subsequent commencement, provided the requisite medical education shall have been completed. The medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on the following courses of lectures, viz.:—Courses of five months' duration (November to April) —Anatomy, Practical Anatomy (with Dissections), Surgery, Chemistry, Practice of Medicine, Midwifery. Courses of three months' duration (April to July)—Botany, Practical Chemistry, Medical Jurisprudence, Materia Medica and Pharmacy, Institutes of Medicine.

*Hospital Attendance.*—1. Nine months' attendance on the clinical lectures of Sir Patrick Dun's Hospital. 2. Nine months' additional attendance on the clinical lectures of any hospital recognised by the Board. 3. Instruction in practical Midwifery, including not less than six deliveries. 4 Certificate of personal attendance on fever cases, stating name and date of each case.

Any of the above-named six or three months' courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows (and three of them, at the discretion of the candidate, may be attended in the University of Edinburgh), provided the candidate has kept an *Annus Medicus* in the School of Physic.

The schools recognised are—1. The School of the Royal College of Surgeons in Ireland. 2. The Carmichael School. 3. The School of Dr. Steevens' Hospital. 4. The St. Peter-street School. 5. The School of the Catholic University.

An *Annus Medicus*, or a year's attendance, in the School of Physic may be kept in three ways:—1. By attending at least

two, or not more than three, of the foregoing courses which are of six months' duration. 2. By attending one course of six months' and two of three months' duration. 3. By nine months' attendance on Sir Patrick Dun's Hospital and clinical lectures; together with one course of six months', or, in lieu thereof, two courses of three months' duration.

The fees for nine months' attendance at Sir Patrick Dun's Hospital is £12 12s. The fee for each course of lectures is £3 3s. The fee for the *Liceat ad Examinandum* is £5. The fee for the degree of M.B. is £11.

2. *Doctor in Medicine.*—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of M.B. for three years, and must perform exercises for the degree before the Regius Professor of Physic, in accordance with the rules and statutes of the University. Total amount of fees for this degree, £13.

3. *Master in Surgery.*—The degree of Master in Surgery can only be obtained by students who are Bachelors of Arts, and who have completed the professional curriculum and passed the examinations required. The curriculum extends over a period of four years, and comprises attendance upon the following courses of lectures:—viz., Anatomy, one course; Demonstrations, three courses; Dissections, three courses; Theory and Practice of Surgery, two courses; Practice of Medicine, one course; Chemistry, one course; Materia Medica, one course; Midwifery, one course; Practical Chemistry, one course; Botany, one course; Medical Jurisprudence, one course. After the year 1874, the Mastership in Surgery will be conferred upon those candidates only who are of Masters in Arts standing.

*Hospital Attendance.*—Three sessions, each of nine consecutive months' duration, in any recognised hospital, together with attendance on the clinical lectures on Medicine and Surgery there delivered. Any of the above-named courses may be attended at any of the medical schools of Dublin recognised by the Board, provided the candidate has kept an *Annus Medicus* in the School of Physic. The following hospitals are recognised by the Board:—1, Sir Patrick's Dun's School of Physic Hospital; 2, Meath Hospital; 3, Richmond, Whitworth, and Hardwicke Hospitals; 4, Dr. Steevens' Hospital; 5, Jervis-street Infirmary; 6, City of Dublin Hospital; 7, Mercer's Hospital; 8, St. Vincent's Hospital; 9, Adelaide Hospital; 10, Mater Misericordiæ Hospital. Of the courses of lectures, which are of five months' duration, not more than three can be attended during any one session. Candidates will also be required to perform surgical operations on the dead subject. Candidates for the degree of Master in Surgery, who have already passed the examination for the degree of Bachelor of Medicine, will be examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5. Fee for the degree of M.Ch., £11.

UNIVERSITY LICENCES.

Candidates for the licences in Medicine or Surgery must be matriculated in Medicine, and must have completed four years in medical studies. Candidates for the licences in Medicine or Surgery must pass the following examination in Arts, unless they be students in the Senior Freshman or some higher class:—Homer's Iliad, Books I., II. (omitting catalogue of ships), III.; Lucian's Dialogues (Walker's edition); Xenophon's Anabasis, Books I., II., III.; Virgil, Æneid, Books I., II., III.; Sallust; Horace, Satires; Latin Prose Composition; English Prose Composition; English History; Modern Geography; Arithmetic; Algebra to the end of Simple Equations; Euclid, Books, I., II., III. Students who have passed the foregoing examination will be required to pay the admission fee of £15.

1. *Licentiate in Medicine.*—The medical course and examination necessary for the licence in Medicine is the same as for the degree of M.B., with the exception that any general hospital approved by the Board of Trinity College may be substituted for Sir Patrick Dun's. Candidates who are already Licentiates in Surgery of the Royal College of Surgeons in Ireland, or Members of the College of Surgeons of England, on passing the foregoing Arts examination, will be admitted to examination for the licence in Medicine. Fee for the *Liceat ad Examinandum*, £5. Fee for the licence in Medicine, £5.

2. *Licentiate in Surgery.*—The surgical course and examination necessary for the licence in Surgery are the same as for the degree of Master in Surgery. Fee for the *Liceat ad Examinandum*, £5. Fee for the licence in Surgery, £5.

*Total Expenses of obtaining the Degrees of Bachelor in Medicine and Master in Surgery.*—I. Lectures: 1. Anatomy (one course), £3 3s. 2. Practical Anatomy (three courses), £9 9s. 3. Dissections (three courses), £15 15s. 4. Surgery (two courses), £4 4s. 5. Practice of Medicine, £3 3s. 6. Chemistry (two courses), £4 4s. 7. Materia Medica and Pharmacy, £3 3s. 8. Midwifery, £3 3s. 9. Botany. 10. Medical Jurisprudence, £3 3s. 11. Institutes of Medicine, £3 3s. Matriculation fee, 5s.—II. Hospitals: Sir P. Dun's (first year), £9 9s.; ditto (second year), £9 9s.; ditto (third year), £9 9s.; Practical Midwifery, £3 3s. Ophthalmic Surgery, £2 2s.—III. Degrees: 1. *Liceat ad Examinandum in Medicinâ*, £5. 2. *Liceat ad Examinandum in Chirurgiâ*, £5. 3. M.B. degree, £11. 4. M.Ch. degree, £11.—Total Expenses: 1. Lectures, £52 15s. 2. Hospitals, £33 12s. 3. Degrees, £32. Total, £118 7s.—N.B. As no degrees in Medicine or Surgery are conferred except upon graduates in Arts, the expense of the degree of Bachelor in Arts, amounting altogether to £83 4s., should be added to the foregoing, making the total £281 11s.

## THE QUEEN'S UNIVERSITY IN IRELAND,

Granting the degrees of Doctor in Medicine and Master in Surgery, and diplomas in Midwifery, includes three colleges—the Queen's College of Belfast, Cork, and Galway—each of which possesses a Faculty of Medicine. The curriculum of medical study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Natural History, Anatomy and Physiology, Practical Anatomy, Materia Medica, and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above courses of lectures must be attended in some one of the Queen's Colleges; the remainder may be taken, at the option of the candidate, in any university, college, or school recognised by the Senate of the Queen's University. Candidates are required before graduating to have also attended in one of the colleges of the Queen's University lectures on Experimental Physics and on one Modern Language, and to have passed the matriculation examination. They are further required to attend, during the first period, Practical Chemistry in a recognised laboratory, and the practice during six months of a recognised medico-chirurgical hospital containing at least sixty beds, together with the clinical lectures delivered therein; and to attend, during the second period, a recognised midwifery hospital, with the clinical lectures therein delivered, for a period of three months; or a midwifery dispensary for the same period; or ten cases of labour, under the superintendence of the medical officer of any hospital or dispensary where cases of labour are treated; and eighteen months' practice of a recognised medico-chirurgical hospital containing at least sixty beds, and in which clinical instruction is delivered. There are two University examinations; one comprising the subjects of study in the first period, the other the subjects of the second period. The degree of Master in Surgery and the diploma in Midwifery are only conferred upon candidates who already hold the degree of Doctor in Medicine, and who have also passed a special examination in Surgery or Midwifery. The University examinations are held twice in each year—in June and September. Candidates who commenced their medical studies elsewhere are admitted to the first University examination before proceeding to College. Further information will be found in the "Queen's University Calendar," or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

## KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RELATIVE TO THE LICENCE IN MEDICINE.

Examinations for the licence in Medicine are statedly held on the second Tuesday and Wednesday in each month (except August and September).

The name of every candidate, together with his schedule and the documents hereafter mentioned, must be lodged on the first day of each month, so as to be submitted to the College at one of its meetings. These are held regularly on the first Friday in each month (except August and September).

CURRICULUM.

A candidate who has not, previous to entering his name, obtained any medical or surgical qualification recognised by the College, must produce—1. Evidence of having been

engaged in the study of Medicine for four years. 2. A certificate of having passed the preliminary examination of one of the recognised licensing corporations before the termination of the second year of medical study. 3. Certificates of having studied, at a school or schools recognised by the College, the following subjects, viz. :—Practical Anatomy; Anatomy and Physiology, or Institutes of Medicine; Botany; Chemistry; Practical Chemistry; Materia Medica; Practice of Medicine and Pathology; Surgery; Midwifery; Medical Jurisprudence. 4. Certificates of having attended a medico-chirurgical hospital in which regular courses of clinical lectures are delivered, together with clinical instruction, for twenty-seven months; or such hospital for eighteen months, with nine months' attendance on a medical hospital, and similar courses of clinical lectures and instruction. 5. A certificate of having attended practical midwifery for six months at a recognised lying-in hospital, or evidence satisfactory to the College in each individual case of having attended practical midwifery. 6. Certificates of character from two registered physicians or surgeons.

A candidate who has already obtained a medical or surgical qualification recognised by the College is only required to produce his diploma or certificate of registration, and the certificate of practical midwifery, and testimonials as to character.

EXAMINATION FOR THE LICENCE IN MEDICINE.

The examination consists of two parts. The subjects of the first part or previous examination are—Anatomy, Physiology, Botany, Chemistry. The subjects of the second part or final examination are—Materia Medica, Practice of Medicine, Medical Jurisprudence, Midwifery.

All candidates for the second or final examination (with the exception below specified) (a) are examined in the practice of Medicine at the bedside in one of the hospitals of Dublin.

Candidates qualified as follows are required to undergo the *second part* of the professional examination *only*, viz. :—1. Graduates in Medicine of a university in the United Kingdom, or of any foreign university approved by the College. 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh, who have been admitted upon examination. 3. Graduates or Licentiates in Surgery. 4. Candidates who, having completed the curriculum above mentioned, have passed the previous examination of any of the licensing corporations in the United Kingdom.

DIPLOMA IN MIDWIFERY.

Candidates already qualified in Medicine or Surgery may apply for permission to be examined for the diploma in Midwifery. The certificates required to be lodged are the same as those required from *qualified* candidates for the licence to practise Medicine.

*Fees.*—Fee for the licence in Medicine, £15 15s. Fee for licence in Medicine and diploma in Midwifery (for which latter there is a separate examination), if taken out within an interval of a month, £16. Fee for the diploma in Midwifery, £3 3s.

Further information can be obtained from the Registrar, College of Physicians, Kildare-street, Dublin.

## ROYAL COLLEGE OF SURGEONS, IRELAND.(b)

I.—REGISTRATION OF PUPILS.

Every person requiring to be registered as a pupil on the College books shall, if the Council think fit, be so registered if he shall have laid before the College a receipt showing that he has lodged, to the credit of the President and for the use of the College, in the Bank of Ireland, a registry fee of five guineas.

II.—QUALIFICATIONS OF CANDIDATES FOR LETTERS TESTIMONIAL.

Every registered pupil shall be admitted to an examination for letters testimonial if he shall have laid before the Council the following documents :—

*a.* A receipt showing that he has lodged a sum of twenty guineas in the Bank of Ireland to the credit of the President and for the use of the College.

*b.* A certificate that he has passed an examination as to his acquaintance with the Greek and Latin languages.

*c.* Certificates showing that he has been engaged in the study of his profession for not less than four years.

*d.* Certificates of attendance on a hospital recognised by the Council, where clinical instruction is given, during three years.

*e.* Certificates of attendance on three courses of lectures on Anatomy and Physiology; three courses of lectures on the Theory and Practice of Surgery, and of the performance of three courses of dissections, accompanied by demonstrations; also, certificates of attendance on two courses of lectures on Chemistry, or one course of lectures on General and one on Practical Chemistry; one course of lectures on Materia Medica; one course of lectures on the Practice of Medicine; one course of lectures on Midwifery; one course of lectures on Medical Jurisprudence; and one course of lectures on Botany.

QUARTERLY EXAMINATION.

1. Examinations are held quarterly, on the second Tuesday in February, May, August, and November, at which candidates shall be divided into two classes—junior and senior.

2. The junior class shall produce certificates of having attended three courses of lectures on Anatomy and Physiology; three courses of lectures on Practical Anatomy, with dissections; two courses of lectures on Chemistry; one course of lectures on Materia Medica; one course of lectures on Botany; and one course of lectures on Forensic Medicine.

3. This class shall be examined in Anatomy, Physiology, and Materia Medica.

4. The fee for this examination shall be five guineas; not to be returned in case of rejection, but to be allowed in the fee for the second examination.

5. The senior class shall produce certificates of having attended three courses of lectures on the Theory and Practice of Surgery, one course of lectures on the Practice of Medicine, and one course of lectures on Midwifery; also certificates of attendance on a recognised hospital for three winter and three summer sessions.

6. This class shall be examined in Surgery, Operative Surgery, the Practice of Medicine, and form of prescription.

7. Both these examinations shall be partly written and partly oral.

8. The fee for this examination shall be fifteen guineas.

*Fees to be paid by Candidates for Letters Testimonial.*

1. The candidate pays ten shillings for his preliminary examination.

2. Five guineas as registered pupil of the College.

3. Five guineas for the junior class examination, which is not returned in case of rejection, but is allowed in the fee for his second examination.

4. Fifteen guineas for the senior class examination—total £26 15s.

5. In addition to the foregoing, a fee of one guinea is to be paid to the Registrar on handing each licentiate his diploma.

6. Every candidate rejected at the quarterly examination shall be required to pay to the College the sum of two guineas on applying for re-examination, so as to recompense the College for the necessary expense.

III.—QUALIFICATIONS OF CANDIDATES FOR THE FELLOWSHIP.

Every registered pupil or licentiate shall be admitted to examination for the Fellowship if he shall have laid before the Council the following documents :—

*a.* A receipt showing that he has lodged in the Bank of Ireland, for the use of the College, if he be a licentiate, the sum of twenty guineas, or thirty-five in case he be a registered pupil, provided in either case he intends to reside beyond ten miles from Dublin. Should the candidate intend to reside in Dublin, or within ten miles thereof, he shall lodge, if he is a licentiate, thirty guineas; or, if he be a registered pupil, forty-five guineas. Fellows entering on the country list, who may subsequently settle as practitioners in Dublin, or within ten miles thereof, shall pay ten guineas to the College.

*b.* A certificate that he is twenty-five years of age.

*c.* A certificate that he is a Bachelor of Arts of some university, or that he has been examined in such manner as the Council may from time to time direct, with a view to ascertain that he has obtained a liberal preliminary education.

*d.* A certificate, signed by two or more Fellows of the College, of good general conduct during his professional education.

*e.* Certificates that he has been engaged in the acquisition of professional knowledge for a period of not less than six years, during three of which he must have studied in one or more of the schools or hospitals recognised by the Council.

(a) Candidates who are physicians or surgeons of five years' standing are exempted from the clinical and written portions of the final examination.

(b) From this body no return has this year been received. The regulations stand as last year.

He may have studied for the other three years in any school or schools of the United Kingdom which shall be approved by the Council, or in any foreign school of repute. It is also required that the candidate shall have had opportunities of practical instruction as house-surgeon or dresser in a recognised hospital.

*f.* Certificates of attendance on the several courses of lectures required to be attended by candidates for letters testimonial, together with one course of lectures on Comparative Anatomy and one course on Natural Philosophy.

*g.* A thesis on some medical subject, or clinical reports, with observations, of six or more medical or surgical cases, taken by himself.

*h.* Candidates of the required age, who shall have taken the degree of Bachelor of Arts in a British or Irish university, and have complied with the foregoing regulations in other respects, will be admitted to examination at the end of five years of professional study, of which three years must have been passed in one or more of the recognised schools or hospitals.

*i.* Licentiates of the College, who may not be able to show that they have followed the course of study specified in the preceding regulations, may, at the expiration of ten years from the date of their diploma, be admitted to the examination required for the Fellowship, provided they produce such evidence as shall be satisfactory to the Council that they have conducted themselves honourably in the practice of their profession.

PRELIMINARY EXAMINATION, REGISTRATION, AND MATRICULATION.

Registered pupils are admitted to answer the preliminary examination at any period previous to the final examination for letters testimonial.

Students who are not registered pupils are also admitted to answer the preliminary examination at any period previous to the examination for letters testimonial, upon payment of a matriculation fee of ten shillings.

The following are the subjects upon which each candidate for the preliminary examination will be examined, viz.:—The English language, including grammar and composition. Arithmetic, including vulgar and decimal fractions. Algebra, including simple equations. Geometry, first two books of Euclid. Latin and Greek, including translations and grammar. In Greek—the Gospel of St. John, the Menippus of Lucian, or the First Book of Xenophon's Anabasis. In Latin—the First and Second Books of the Æneid of Virgil, the Jugurthine War of Sallust, or the Third Book of Livy. These examinations are held quarterly, viz.:—On the third Wednesday in January, April, July, and October in each year. Fee, ten shillings.

Candidates are requested to enter their names, and pay the fee to the Registrar, at least three days previous to the day of examination.

## THE APOTHECARIES' HALL OF IRELAND.

BY-LAWS AND REGULATIONS.

Every candidate for the licence to practise is required to undergo a preliminary and a professional education and examination.

THE PRELIMINARY EDUCATION AND EXAMINATION IN ARTS.

*Compulsory.*—1. English Grammar, Composition, and the leading events of English History. 2. Arithmetic and Algebra, to Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: The Twenty-first Book of Livy or the first Three Books of the Æneid of Virgil, and Latin Prose Composition. 5. Greek: The first Two Books of the Anabasis of Xenophon or the Ninth Book of the Iliad of Homer. 6. French: Charles XII., or "Voyage en Orient" of Lamartine. 7. German: "Wilhelm Tell" of Schiller. Candidates will be examined in French or German, as they may select.

*Optional.*—1. Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. 2. Natural History: The Classification, Elementary Structure, and General Physiology of Vegetables and Animals.

THE ARTS EXAMINATIONS

will be held at the Hall four times in the year—viz., the third Thursday in the months of January, April, July, and October, at the hour of twelve o'clock noon. It will be conducted by means of printed papers and by special examiners (Graduates in Arts of the University of Dublin), with assessors from the Court of the Hall. The answers to the papers will be required in writing.

Unsuccessful candidates will be remitted to their studies for a period of six months.

THE PROFESSIONAL EDUCATION AND EXAMINATIONS.

Every candidate for the licence to practise must produce certificates to the following effect:—

1. Of having passed an examination in Arts previously to entering on professional study.

2. Of being at least twenty-one years of age, and of good moral character.

3. Of apprenticeship to a qualified apothecary, or of having been engaged in practical pharmacy with an apothecary for a period of three years subsequent to having passed the examination in Arts.

4. Of having spent four years in professional study.

5. Of having attended the following courses, viz.:—Chemistry, during one winter session; Anatomy and Physiology, during two winter sessions; Demonstrations and Dissections, during two winter sessions; Botany and Natural History, during one summer session; Practical Chemistry (in a recognised laboratory), during three months; Materia Medica, during three months; Principles and Practice of Medicine and Therapeutics, during one winter session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised hospital (attendance upon twenty cases); Surgery, during one winter session; Forensic Medicine, during one summer session; instruction in the practice of vaccination.

6. Of having attended, at a recognised hospital or hospitals, the practice of Medicine and clinical lectures on Medicine, during two winter and two summer sessions; also the practice of Surgery and clinical lectures on Surgery, during one winter and one summer session.

7. Of having performed the operation of vaccination successfully under a recognised vaccinator.

The Court of Examiners expect lecturers and teachers to hold weekly class examinations.

The examination for the licence to practise is divided into two parts:—The first part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy; the second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene.

The professional examinations will be held quarterly, and will commence on the first and second Mondays in the months of January, April, July, and October.

Candidates for the licence must lodge their testimonials, and enrol their names and addresses with the Clerk, at the Hall, in Dublin, a week prior to the day of examination.

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The British Hospital for Diseases of the Skin, Great Marlborough-street, W., and Finsbury-square, E.C.—Surgeons—Balmanno Squire, M.B., and George Gaskoin, Esq.

Pharmaceutical Society of Great Britain, Bloomsbury-square, London—School of Pharmacy.—The session will commence on October 1, 1874, and extend to July 31, 1875. Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood on Monday, Tuesday, and Wednesday mornings at nine o'clock, commencing on Monday, October 5. The course consists of sixty lectures, comprising an exposition of the leading principles and doctrines of the science of Chemistry and of those branches of allied physical science, the applications of which are involved in the highest qualifications required for the practice of Pharmacy. There will be two of these courses during the session—the course which commences in October and ends in February being repeated in the following five months. Each course will be complete in itself, and will include a description of all the most important chemical and Galenical preparations used in medicine, which will be fully illustrated with experiments, diagrams, and specimens. Lectures on Botany and Materia Medica by Professor Bentley, on Friday and Saturday mornings at nine o'clock, commencing Friday, October 2. The course consists of about forty lectures, comprising Structural and Physiological Botany and Organic Materia Medica. There will be two of these courses during the session—the course which commences in October and ends in February being repeated in the following five months. Each course will be complete in itself, and will be illustrated by fresh, dried, and preserved portions of plants, drawings, diagrams, preparations, and experiments. In addition to these two courses, one on Systematic and Practical Botany, consisting of twenty lectures, will be delivered in the Royal Botanic Society's Gardens, Regent's-park, commencing in May and ending in July. Also, Lectures on Practical Chemistry, by Professor Attfield, Ph.D., F.C.S. The Laboratories will be opened on Thursday, October 1, at 10 a.m. The Laboratories are fitted up with every convenience for the study of the principles of Chemistry by personal experiment. They are specially designed for the study of Pharmacy, but are also well adapted for the acquirement of a knowledge of Chemistry in its applications to Manufactures, Analysis, and Original Research. There is no general class for simultaneous instruction, each student following an independent course of study always determined by his previous knowledge. Pupils can therefore enter for any period at any date. The Laboratories are open from ten o'clock in the morning until five in the afternoon daily, except on Saturdays, when they are closed at two o'clock.

## TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

As this number is almost entirely devoted to matter mainly concerning Students, many most important communications and contributions unavoidably stand over.

# Medical Times and Gazette.

SATURDAY, SEPTEMBER 12, 1874.

## TO STUDENTS.

We wish we had sufficient elasticity of mind and imagination to enable us to put ourselves in the place of one of our young fellow-students. Of sympathy with them, with their fears, their hopes, and their aspirations, we have, indeed, no lack; but we think we could more effectively warn and advise them had we a fresher and more practical knowledge of the Schools and the Students of to-day than is possible to gray-haired men. Or, better still, we should much like to see what a good, well-working, observant, and thoughtful fourth-year's man would say, were he to write an Address to his fellow-students. Against what snares and pitfalls would he wish most to warn them, and what methods and order of working would he especially advise them to pursue? Unhappily this idea has come to us too late to be of any use this year, so we must be content to say from ourselves a few words to the Students entering or returning to the various medical schools. And in truth we do not suppose that our fourth-year's student would in effect say anything more than we say when we exhort the student to work heartily, honestly, and steadily. He comes up to the medical schools now much better prepared and equipped for work than was generally the case a few years ago. He has been obliged to learn so much for his preliminary examination that he ought to have learnt, to some extent at any rate, *how* to work; and that is, of itself, no little gain. And he has become in some degree acquainted with his own powers. He ought to know already whether he is quick to learn, or slow, and whether his memory is retentive or not. He may be expected, in short, to have some knowledge of work and of himself as a worker. Being thus already a Student, let him neither be dismayed on the one hand by the amount and extent of work before him, nor think, on the other hand, that the four-years term allotted to medical education is so long that he can afford to waste any portion of it. Again, he must not imagine that he can during the years of his studentship learn thoroughly any of the subjects he has to take up; the time he will be able to devote to each subject is much too short for that; but he may, by diligent, honest work, lay a solid, lasting foundation of knowledge of each subject,—and this he must earnestly and persistently strive to do.

Last year we especially urged on the Student the importance of working methodically—of following an orderly and well-ordered course in his studies; and, quoting from Coleridge on "Method," we said—be not as "the man who flutters about in blindness like the bat, or is carried hither and thither like the turtle sleeping on the wave, and fancying because he moves that he is in progress"; but adopt a *method*—that is, "a *progressive transition* from one step in any course to another." All experience teaches the paramount value and importance of this; and the experience of generations of teachers of the art and science of Medicine has been drawn on to lay down the method according to which the Medical Student shall pursue his studies. This method, or curriculum, the Student *must* follow more or less. We strongly advise him to follow it out thoroughly, keeping ever stedfastly before him the great object he has to work for—viz., the gaining the knowledge how to prevent, cure, or control disease, or to support a patient through or during acute or chronic disease that we know not yet how to cure; and how to relieve or palliate pain and distress. No grander or more beneficent object can a man strive for than to gain this knowledge—the knowledge of the Science and Art of Medicine, and the power for good that it gives. And a man may attain to so much of it during the four years of his studentship, if he works with the pluck and determination of an honest English gentleman, that he may enter on the practice of Medicine with an easy conscience, confidence, and hope.

We will add that the Student of Medicine must take every opportunity of gaining a knowledge of some things that are not much taught in the schools. He must learn his fellow-men—their differences of character and temperament, and of tolerance of disease; the immense importance of protecting and promoting that tolerance; and the paramount value of alimentation in disease. Let him remember Chomel's maxims: that the proper aim of the medical man is—first, not to do harm; and, second, to try to do good; and that, he has not to treat diseases, but patients afflicted with diseases. And, finally, let him remember ever that his work, now and throughout life, is to make himself a worthy practitioner of that science and art which, to use Dr. Russell Reynolds's words, "in spite of all its failures, misdirections, and missing links, is yet one of the greatest boons that man has been the means of conferring on man, and which will in the future far transcend in its benefits to mankind all that we have known of its doings in the past."

## CHANGES IN THE STAFFS OF THE VARIOUS HOSPITALS AND SCHOOLS.

Once again it is our duty to enumerate and recount the various changes which our Hospitals and Schools have seen during the past year, and the additions which have been made to the various teaching staffs in the metropolis.

Taking the various Hospitals in alphabetical order, we begin with St. Bartholomew's, where the changes are few indeed—consisting mainly in the addition of Messrs. Walsham and Cripps to the list of Demonstrators of Anatomy, whilst W. Legg is made Demonstrator of Morbid Anatomy.

At Charing-cross Hospital the changes are more important. By the resignation of Dr. Headland all the members of the medical staff get a step—Dr. Pollock becoming Senior Physician with the Lectures on Medicine; Dr. Silver becoming Special Lecturer on Clinical Medicine; and Dr. Green becoming full Physician instead of Senior Assistant. The new Assistant-Physician is Dr. Pearson Irvine, a name well known at University College. Mr. Bellamy also becomes Lecturer on Anatomy in room of Mr. Barwell; whilst, in the class of Public Health, Mr. Eassie has been appointed coadjutor to Dr. Poore and Mr. Heaton.

St. George's has sustained a serious loss in the person of its esteemed Senior Physician, Dr. Fuller. By his death Dr. Barclay becomes Senior Physician, and Dr. Dickinson full Physician, whilst Dr. Cavafy has been made Assistant-Physician, after long years of service to the Hospital. The Hospital is, we think, to be congratulated on the fact that no change has taken place in the surgical staff, for one more eminent or more excellent it would be hard to find. There are few changes in the School. Dr. R. J. Lee is made coadjutor to Dr. J. Clarke in Midwifery, and Dr. Whipham takes Skin Diseases, in

place of Dr. Barclay. Mr. Frost is made Demonstrator of Anatomy, with Mr. Dunbar as Assistant.

At Guy's the chief changes to be noted are those caused by the lamented death of Dr. Phillips, Assistant Obstetric Physician, and the appointment of Dr. Galabin in his place; and the resignation of Mr. Hinton as Aural Surgeon, he being succeeded by Mr. Purves. In the dissecting-room, too, we note that Mr. Clement Lucas is chief, with Mr. Golding Bird and Mr. Jacobson as assistants; the Practical Surgery is taken by the old Demonstrator, Mr. Davies-Colley.

King's College Hospital has sustained two decided losses in Dr. Garrod and Dr. Kelly, who have retired during the year; both were skilled clinical teachers. Dr. Duffin is now full Physician, and Drs. Rutherford and Ferrier Assistant-Physicians. Dr. Baxter succeeds Dr. Garrod as Lecturer on Materia Medica; and Dr. Garrod takes the place of Dr. Rymer Jones, who has resigned, in the Chair of Comparative Anatomy.

By the resignation of Dr. Davies at the London Hospital, Dr. Andrew Clark became Senior Physician. But another vacancy was created by the resignation of Dr. Morell-Mackenzie, so that Dr. Sutton became full Physician, and Dr. Stephen Mackenzie and Dr. Sansom were elected Assistant-Physicians. There is no change on the surgical side nor in the School, save that Mr. McCarthy becomes solely responsible for the teaching of Physiology. Dr. M. Mackenzie will continue to lecture on Diseases of the Throat.

At St. Mary's very slight changes have taken place. By seniority Mr. Gascoyen becomes full Surgeon. Dr. Farquharson lectures on Materia Medica instead of Dr. Cheadle, and Mr. Knott fulfils the duties of Pathologist. Mr. Giles is also made Assistant-Demonstrator with Mr. Owen.

The most important change at Middlesex is due to the lamented death of Dr. John Murray; but as he was, comparatively speaking, a junior on the staff, the change affects few. Dr. Evans takes his place as Assistant-Physician. A new appointment has been made in the case of Dr. Edis, who has been appointed Assistant Obstetric Physician.

At St. Thomas's no change of importance is to be noted, save in the resident posts of Assistant-Physician and Surgeon respectively—posts now held by Dr. Turner and Mr. McKellar. In this respect St. Thomas's may be said to be in the happy position of the nation which has no history.

At University College, the most important change is due to the death of Dr. Grant, so long Lecturer on Comparative Anatomy, and the last exemplar of the original staff. The post is not yet filled. Mr. Browne also becomes assistant to Mr. Ellis in the dissecting-room.

At Westminster there are a good many changes. By the resignation of Mr. Pearse, Mr. Davy has been made full Surgeon, and Mr. Keene Assistant-Surgeon. Mr. Cowell is now sole Lecturer on Surgery; whilst, by the death of Dr. Bird, Dr. Potter becomes at once Senior Obstetric Physician and Lecturer on Midwifery, and in his stead Mr. Bond lectures on Medical Jurisprudence. Dr. Grigg is the new Assistant Obstetric Physician. Mr. Keene will lecture on Aural Diseases; Mr. Verdon is also made a Demonstrator of Anatomy, and Mr. Cheyne of Minor Surgery and Bandaging.

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The following are the days and hours of the various Introductory Lectures, with the names of the respective Lecturers:—

| Hospital. | Date. | Lecturer. | Hour. |
|---|---|---|---|
| St. Bartholomew's | Thursday, Oct. 1 | None. | |
| Charing-cross | " | Dr. Douglas Powell | 4 p.m. |
| St. George's | " | Dr. Dickinson | 4 p.m. |
| Guy's | " | Sir William Gull | 2 p.m. |
| King's College | " | Dr. Ferrier | 4 p.m. |
| London | " | Dr. Fenwick | 3 p.m. |
| St. Mary's | " | Mr. Owen | 3.30 p.m. |
| Middlesex | " | Mr. Clark | 3 p.m. |
| St. Thomas's | " | Mr. Mac Cormac | 2 p.m. |
| University College | " | Dr. F. Roberts | 3 p.m. |
| Westminster | " | Dr. Potter | 8 p.m. |

## THE WEEK.

### OUTBREAK OF TYPHOID FEVER AT EYNSHAM, OXON.

An interesting case of a limited outbreak of typhoid fever has just occurred at Eynsham, a large village containing more than 2000 inhabitants, situated in the valley of the Thames, six miles west of Oxford. A block of sixteen brick cottages, looking some fifteen or twenty years old, furnishes all the conditions which would make one inclined to chalk upon it in large letters "typhoid terrace," and the result has been precisely what might have been expected. A filthy back yard where the soil, to use the expression of the inhabitants, oozes up between the bricks, filthy privies, and sink-pipes leading from the drains into the houses, are enough to account for much; but the fact that shortly before the outbreak all the cottagers were using one well, which is obviously in connexion with the drains, and gives water "like soup" after a shower, furnishes no doubt the real explanation. Of the sixteen houses, fourteen have been attacked, one of the remaining two being empty. There have been twenty-five cases, and up to this time three deaths. No cases have occurred elsewhere. As a commentary on the efficiency of recent legislation, it is well to remark that the first case was recognised forty-one days ago, but that the inhabitants are still allowed to use the water of the offending pump; that the local board and the medical officer of health for the county have been appealed to, but that the former seems to have little wish, and the latter no power, to coerce the landlord. The landlord, a local brewer, lives within twenty yards of the spot, and has certainly up to the present moment done nothing.

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### THE RECENT POOR-LAW INQUIRY AT CAMBRIDGE.

There has been going on, before certain officers of the Poor-law Board, an inquiry into the conduct of one of the Poor-law medical officers there—a Dr. Mead,—which certainly deserves some notice at our hands. Dr. Mead seems to have been accused of all kinds of things in connexion with the recent epidemic of small-pox at Newmarket—accusations we should hesitate to repeat; for certainly they were supported by about the weakest evidence it is possible to conceive, and some were apparently altogether unsupported. It would seem to us, writing at a distance, and with no other knowledge of the facts than the evidence laid before the Commissioners, that, as too often happens in such cases, Dr. Mead has been made a scapegoat to carry away the sins of many. During the epidemic, revaccination was of course had recourse to, and equally, as a consequence, good lymph soon became scarce. Dr. Mead does not seem to have had a good supply, and some of the paupers in the workhouse remained unvaccinated. It was, however, questionable whether they desired to be so; and there is, we fancy, no law to compel anyone to submit to revaccination. Much more serious, it seems to us, were the statements which came out inadvertently as to the nursing in the infectious wards and special small-pox hospital. That seems to have been utterly inadequate; and the excuse that no more nurses could be got in the neighbourhood is certainly utterly valueless. Plenty of skilled nurses could have been got in London if proper inducements had been held out; and until such exertions had been made, the authorities had no right to say they had done all in their power to stay the destructiveness of the plague. In one respect Dr. Mead seems to have been clearly in the wrong—technically, at least: he left his post without the consent of the Guardians; but as he was subpœnaed to attend a trial, and left a duly qualified substitute in his place, the fault does not seem to have been a very great one, no more does his extending his journey to Lowestoft, and there remaining a day or two, considering, as was in evidence, that every medical man in the place had been more or less overworked.

# TABLES

## GIVING THE NAMES OF LECTURERS, HOURS OF LECTURE, DAYS OF ATTENDANCE, AND FEES IN THE METROPOLITAN MEDICAL SCHOOLS AND HOSPITALS.

| LECTURES. | ST. BARTHOLOMEW'S. | | | | | CHARING CROSS. | | | | | ST. GEORGE'S. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lecturers. | Days and Hours. | Fees. 1 Course | 2 Courses | Perpetual. | Lecturers. | Days and Hours. | Fees. 1 Course | 2 Courses | Perpetual. | Lecturers. | Days and Hours. | Fees. 1 Course | 2 Courses | Perpetual. |
| **WINTER SESSION.** | | | £ s. | £ s. | £ s. | | | £ s. | £ s. | £ s. | | | £ s. | £ s. | £ s. |
| PRINCIPLES AND PRACTICE OF MEDICINE | Dr. Black<br>Dr. Andrew | M Tu Th 3 30 | 5 5 | .. | 7 7 | Dr. Pollock | M W F 4 | 4 4 | 6 6 | .. | Dr. Barclay | Tu Th S 9 | 6 6 | .. | 7 7 |
| SURGERY | Mr. Savory<br>Mr. Callender | M W 2.30 S 9.30 | 5 5 | .. | 7 7 | Mr. Canton | Tu Th S 9 | 3 3 | 5 5 | .. | Mr. Holmes | M W F 9 | 6 6 | .. | 7 7 |
| PRACTICAL SURGERY | Mr. Willett | M W F 2.30 | 5 5 | .. | 7 7 | .. | .. | .. | .. | .. | Mr. Pick | M W F 3 *sum.* | .. | .. | .. |
| DESCRIPTIVE & SURGICAL ANATOMY | Mr. T. Smith<br>Mr. Langton | Tu W Th F 9 | 7 7 | .. | 10 10 | Mr. Bellamy | M W F 9<br>Th 3 | 4 4 | 6 6 | .. | Mr. Rouse | M W F 3 | 6 6 | .. | 7 7 |
| ANATOMICAL DEMONSTRATIONS. | Mr. Cumberbatch<br>Mr. Furner<br>Mr. Walsham | Daily 10.15 till 4 | 3 3 | 5 5 | .. | Mr. Cantlie | Daily, 10 to 3 | 3 3 | 5 5 | .. | Mr. Frost<br>Mr. Dunbar | Daily 10 | 3 3 | .. | .. |
| PHYSIOLOGY | Mr. M. Baker<br>Dr. E. Klein, *histology* | M Tu F 2.30 | 7 7 | .. | 10 10 | Dr. Silver | M Tu W F 3 | 4 4 | 6 6 | .. | Dr. Cavafy | Tu Th 3 F 11 | 6 6 | .. | 7 7 |
| PRACTICAL PHYSIOLOGY | Mr. Symons | .. | 5 5 | .. | 7 7 | Dr. Silver<br>Dr. Bruce | .. | .. | .. | .. | Mr. H. Watney | Tu Th 8.10 | .. | .. | .. |
| CHEMISTRY | Dr. Russell | M W F 10 | 5 5 | .. | 7 7 | Mr. Heaton<br>Mr. Bolas, *dem.* | M Th F 11 | 5 5 | .. | .. | Dr. Noad | Tu Th S 11.30 | 6 6 | .. | 8 8 |
| HOSPITAL PRACTICE— | | | | | | | | | | | | | | | |
| *Physicians* | Dr. Black<br>Dr. Harris<br>Dr. Andrew<br>Dr. Southey | M Tu Th 1<br>Tu Th S 1.30<br>M Tu Th F S 1.30<br>M W Th S 1.30 | 8 8<br>3 mths | 18 18<br>2 yrs. | 26 5 | Dr. Pollock<br>Dr. Silver<br>Dr. Green | M W F 1<br>Tu Th F 1<br>M W S | 10 10<br>6 mths | 15 15<br>12 mths | 21 0 | Dr. Barclay<br>Dr. J. Ogle<br>Dr. Wadham<br>Dr. Dickinson | M F 1<br>M F 1<br>Tu S 1<br>Tu S 1 | 8 8<br>6 mths | 16 16<br>3 years | 25 4 |
| *Assistant-Physicians* | Dr. Church<br>Dr. Gee<br>Dr. Duckworth<br>Dr. Hensley | Tu F 11<br>W S 11<br>M Th 11 F 1.30 | .. | .. | .. | Dr. Powell<br>Dr. Poore<br>Dr. J. M. Bruce *dis. of chil.*<br>Dr. P. Irvine<br>Dr. E. Sparks, *skin dis.* | Tu F<br>W S<br>W S<br>M Th<br>Tu S | .. | .. | .. | Dr. Whipham<br>Dr. Cavafy | M F 12<br>Tu S 12 | .. | .. | .. |
| *Surgeons* | Mr. Holden<br>Mr. Savory<br>Mr. Callender<br>Mr. T. Smith | Tu F S 1.30<br>M I Tu W Th F S 1.30<br>Daily 1.30<br>Daily 1·30 | 10 10<br>3 mths | 21 0<br>1 year | 26 5 | Mr. Canton<br>Mr. Hird<br>Mr. Barwell | Tu F 1<br>M Th 1<br>W S 1 | 10 10<br>6 mths | 15 15<br>12 mths | 21 0 | Mr. P. Hewett<br>Mr. Pollock<br>Mr. H. Lee<br>Mr. Holmes<br>Mr. B. Carter *oph.* | M F 1<br>M F 1<br>Tu S 1<br>Tu S 1<br>W S 2 | 15 15<br>6 mths | 21 0<br>3 years | 42 0 |
| *Assistant-Surgeons* | Mr. Willett<br>Mr. Langton<br>Mr. M. Baker<br>Mr. Marsh | W S F 12.30<br>Tu F 12.30<br>M Th 12.30 | .. | .. | .. | Mr. Bellamy<br>Mr. F. Clarke<br>Mr. J. A. Bloxam | M Th<br>Tu F<br>W S | .. | .. | .. | Mr. Rouse<br>Mr. Pick | Tu S 12<br>M F 12 | .. | .. | .. |
| *Physician-Accoucheur* | Dr. Greenhalgh | Th 1.30 S 9 | .. | .. | .. | Dr. J. W. Black | M W F | .. | .. | .. | Dr. J. Clarke<br>Dr. R. J. Lee, *asst.* | Tu S 1 Th 12 | .. | .. | .. |
| CLINICAL MEDICINE | Dr. Black<br>Dr. Harris<br>Dr. Andrew<br>Dr. Southey | .. Weekly | .. | .. | .. | Dr. Silver and Physicians | Weekly | .. | .. | .. | Dr. Wadham<br>Dr. Dickinson<br>Dr. Barclay | M 2<br>M 2<br>M 2 *sum.* | .. | .. | .. |
| CLINICAL SURGERY | Sir J. Paget<br>Mr. Holden<br>Mr. Savory<br>Mr. Callender<br>Mr. T. Smith | .. Weekly | .. | .. | .. | Mr. Hancock and Surgeons | Weekly | .. | .. | .. | Mr. Hewett<br>Mr. H. Lee<br>Mr. Holmes | Tu 2<br>Tu 2<br>Tu 2 *sum.* | .. | .. | .. |
| DISEASES OF WOMEN | Dr Greenhalgh | .. | .. | .. | .. | Dr. Black | .. | .. | .. | .. | Dr. Clarke | F 2 *win.* | .. | .. | .. |
| PATHOLOGY AND MORBID ANATOMY | Dr. W. Legg *dem.* | Dly 1&2.30<br>W *sum.* 9·30 | 2 2 | .. | 3 3 | Dr. T. H. Green | Tu F 3 W 4 *sum.* | 2 2 | .. | .. | Dr. Dickinson<br>Mr. Haward | Th 3 *sum.*<br>W 12 | 3 3 | .. | .. |
| OPHTHALMIC SURGERY | Mr. Power and Mr. Vernon | Tu Th S 2 | .. | .. | .. | .. | .. | .. | .. | .. | Mr. B. Carter | W 10 *win.* | .. | .. | .. |
| HYGIENE | Dr. Southey | .. | .. | .. | .. | Mr. Heaton<br>Dr. Poore<br>Mr. Eassie | .. | .. | .. | .. | Dr. Barclay | .. | .. | .. | .. |
| **SUMMER SESSION.** | | | | | | | | | | | | | | | |
| MATERIA MEDICA | Dr. Farre<br>Dr. Brunton | Tu Th S 10<br>W 11.30 | 5 5 | .. | 6 6 | Dr. Powell | Tu Th S 9.45 | 3 3 | .. | .. | Dr. Dickinson | M W F 3 | 4 4 | .. | 5 5 |
| BOTANY | Mr. Henslow | M W F 10 | 3 3 | .. | 4 4 | Dr. Dowson | Tu Th S 11 | 2 2 | .. | .. | Dr. Whipham | T 3 W Th 12 | 3 3 | .. | 4 4 |
| FORENSIC MEDICINE | Dr. R. Southey | M Th S 9 | 3 3 | .. | 4 4 | Dr. G. V. Poore | M W F 9 | 2 2 | .. | .. | Dr. Wadham | Tu Th S 9 | 4 4 | .. | 5 5 |
| MIDWIFERY | Dr. Greenhalgh | Tu W F S 8.30 a.m. | 5 5 | .. | 6 6 | Dr. J. W. Black | M W Th 3 | 3 3 | .. | .. | Dr. J. Clarke<br>Dr. R. J. Lee, *asst.* | M W F 9 | 5 5 | .. | 6 6 |
| PRACTICAL CHEMISTRY | Dr. Russell | M Tu F 11 to 1 | 2 2 | .. | .. | Mr. Heaton<br>Mr. Bolas | M F 10—1 | 2 2 | .. | .. | Dr. Noad | M W Th F 10 | 4 4 | .. | .. |
| MICROSCOPIC ANATOMY | Mr. Symons | .. | .. | .. | .. | Mr. J. M. Bruce | .. | .. | .. | .. | Mr. H. Watney | Tu Th S 10 | .. | .. | .. |
| OPHTHALMIC SURGERY | Mr. Power<br>Mr Vernon *dem* | Tu W 12.45<br>W *win.* 2 | 2 2 | .. | 3 3 | .. | .. | .. | .. | .. | Mr. B. Carter | | .. | .. | .. |
| COMPARATIVE ANATOMY | Dr. Church | M Th 11 | 2 2 | .. | 3 3 | .. | .. | .. | .. | .. | Dr. Cavafy | M F 4.30 | .. | .. | .. |
| DISEASES OF BRAIN, ETC. | Dr. Claye Shaw | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| ORTHOPÆDIC SURGERY | Mr. Willett | F 12.30 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| NATURAL PHILOSOPHY | Dr. Hensley | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| DENTAL SURGERY | Mr. Coleman | F 9 (3mths) | 2 2 | .. | 3 3 | Mr. Fairbank | .. | .. | .. | .. | Mr. Vasey | Tu 10 | 1 1 | .. | .. |
| PSYCHOLOGICAL MEDICINE | Dr. Claye Shaw | Th 11.45 | 2 2 | .. | 3 3 | Dr. Hunt | M 12 | .. | .. | .. | Dr. Blandford | .. | .. | .. | .. |
| OPERATIVE SURGERY | *Dems. of Anatomy* | .. | 4 4 | .. | .. | Mr. Bellamy | .. | .. | .. | .. | Mr. Pick | Tu Th S 3 | 2 2 | .. | .. |
| PHYSIOLOGICAL CHEMISTRY | Mr. Symons | .. | .. | .. | .. | .. | .. | .. | .. | .. | Mr. Moore | M W F 10 *win.* | .. | .. | .. |
| SKIN DISEASES | Dr. Duckworth | F 1.30 | .. | .. | .. | Dr. E. Sparks | Tu 2.30 | .. | .. | .. | Dr. Whipham | Th 2 | .. | .. | .. |
| DISEASES OF THE EAR | Mr. Langton | F 2.30 | .. | .. | .. | Mr. Bloxam | .. | .. | .. | .. | Mr. Dalby | W 3 | .. | .. | .. |
| Entrance to Lectures and Hosp. Practice for Examinations | .. | .. | .. | .. | 105 0 | Including Matriculation | .. | .. | .. | 76 5 | Perpetual Fee | .. | .. | .. | 105 0 |
| To the Hospital Practice only | .. | .. | .. | .. | .. | .. | .. | .. | .. | 31 10 | Compounding | .. | .. | .. | 94 10 |
| | | | | | | | | | | | | .. | .. | .. | 37 16 |

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| PRINCIPLES AND PRACTICE OF MEDICINE | Dr. Wilks<br>Dr. Habershon | M W F 3 | 5 5 | .. | .. | Dr. G. Johnson | Tu 4 Th F 5 | 7 7 | .. | 7 7 | Dr. H. Davies<br>Dr. Ramskill<br>Dr. L. Down | M W Th 9.15 till Xmas, after Th 9.15 Tu F 4 | 5 5 | .. | 6 6 |
| SURGERY .. .. .. | Mr. Birkett<br>Mr. C. Forster | Tu Th 3.30<br>F 10.30 | 5 5 | .. | .. | Mr. Wood | M Tu W 5 | 7 7 | .. | 7 7 | Mr. Couper | Tu F S 9 | 5 5 | .. | 6 6 |
| DESCRIPTIVE & SURGICAL ANATOMY | Mr. Durham<br>Mr. Howse | Tu W Th F 9 | 5 5 | .. | .. | Dr. Curnow | Daily except M 9 | 7 7 | .. | 10 10 | Mr. Rivington | M Tu Th F 2 | 5 5 | .. | 8 8 |
| ANATOMICAL DEMONSTRATIONS | Mr. Lucas<br>Mr. Golding-Bird<br>Mr. Jacobson | Daily 9 to 4 | 5 5 | .. | .. | Dr. Curnow | .. | .. | .. | .. | Mr. J. Adams<br>Mr. H. Reeves | Daily 10 to 3 exc. W. & S after. | 5 5 | .. | 8 8 |
| GENERAL ANATOMY AND PHYSIOLOGY | Dr. Pavy<br>Dr. Pye-Smith | M W F 4.15 | 5 5 | .. | .. | Dr. Rutherford | M W Th F 4 | 7 7 | .. | 10 10 | Mr. M'Carthy | M W Th 4 | 4 4 | .. | 6 6 |
| CHEMISTRY .. .. .. | Dr. Debus<br>Dr. Stevenson | Tu Th S 11 | 5 5 | .. | .. | Mr. Bloxam<br>Mr. Hartley | M W Th S 10.15 | 7 7 | .. | 10 10 | Dr. Letheby<br>Dr. C. M. Tidy | M W F 10.30 | 7 7 | .. | 7 7 |
| HOSPITAL PRACTICE— | | | | | | | | | | | | | | | |
| *Physicians* .. .. .. | Dr. Habershon<br>Dr. Wilks<br>Dr. Pavy<br>Dr. Moxon<br>Dr. B. Hicks, *obs.* | Tu Th S 1.30<br>M Th S 1.30<br>M W F 1.30<br>M F 1.30<br>Tu F 1.30 | 10 10<br>3<br>mths | 15 15<br>6<br>mths | 26 5 | Dr. Johnson<br>Dr. Beale<br>Dr. A. Duffin<br>Dr. Playfair, *obs.* | M Th 2<br>Tu S 2<br>W F 2<br>Tu Th S 1.30 | 10 10<br>6<br>mth | 15 15<br>18<br>mths | 21 0 | Dr. A. Clark<br>Dr. Ramskill<br>Dr. Down<br>Dr. H. Jackson<br>Dr. Head, *obs.*<br>Dr. Palfrey, *obs*<br>*Out-patients*—<br>Dr. Sutton | M Th 2<br>W F 2<br>Tu F 2<br>M Th 2<br>Tu F 1.30<br>W S 1.30<br>M Th 1.30 | 6 6<br>6<br>mths | 12 12<br>Period reqd. by Apoth. H. | 21 0 |
| *Assistant-Physicians* .. | Dr. C. H. Fagge<br>Dr. Pye-Smith<br>Dr F. Taylor<br>Dr. Galabin, *obs.* | F 12<br>W 12<br>M 12<br>M F 1.30<br>Th S 12 | .. | .. | .. | Dr. Yeo<br>Dr. Rutherford<br>Dr. Ferrier<br>Dr. Hayes, *obs.* | M Th 1<br>Tu F 1<br>W S 1<br>Tu Th S 12·30 | .. | .. | .. | Dr. Fenwick<br>Dr. Woodman<br>Dr. Stephen Mackenzie<br>Dr A. E Sansom | Tu F 1.30<br>Tu F 1.30<br>W S 1.30<br>M Th 1.30 | | | |
| *Surgeons* .. .. .. | Mr. Birkett<br>Mr. C. Forster<br>Mr. Bryant<br>Mr. Durham<br>Mr. Bader, *oph.*<br>Mr. Purves *aur* | M Th 1.30<br>M Th 1.30<br>M Th 1.30<br>M Th F 1.30<br>W S 1.30 M Tu F 12<br>Tu F 12 | 10 10<br>3<br>mths | 15 15<br>6<br>mths | 26 5 | Sir W. Fergusson<br>Mr. Wood<br>Mr. Wells, *oph.*<br>Mr. H. Smith | Tu Th S 1.30<br>M W F 1.30<br>Tu Th S 1<br>M W F 1 | 15 15<br>6<br>mths | 21 0<br>21<br>mths | 26 5 | Mr. Hutchinson<br>Mr. Maunder<br>Mr. Couper<br>Mr. Rivington | M Th 2<br>Tu F 1.30<br>W S 1.30<br>M Th 1.30 S 9.30 *aur.* | 8 8<br>6<br>mths | 18 18<br>18<br>mths | 26 5<br>3<br>years |
| *Assistant-Surgeons* .. .. | Mr. Howse<br>Mr. D.-Colley<br>Mr. Higgens, *oph.* | M Th 12<br>W S 12<br>Tu F 1.30 | .. | .. | .. | Mr. R. Bell | Tu Th S 1 | .. | .. | .. | Mr. J. Adams<br>Mr. W. Tay<br>Mr. M'Carthy<br>Mr. Reeves | Tu F 1.30 W S 9 *oph.*<br>M Th 1.30 W S 9 *oph.*<br>M Th 1.30 S 9 *skin*<br>Tu S 1.30 S 9.30 *aur.* | .. | .. | .. |
| CLINICAL MEDICINE .. | *Winter*—<br>Dr. Habershon<br>Dr. Wilks<br>Dr. Pavy<br>Dr. Moxon<br>*Summer*—<br>Dr. Fagge<br>Dr. Pye-Smith<br>Dr. F. Taylor | S 1.30<br>W 1.30 | .. | .. | .. | Dr. Johnson<br>Dr. Beale<br>Dr. Duffin<br>Dr. Playfair, *obs.* | Every alt. M 3 p.m.<br>Every alt. Tu 3<br>Every alt. F 3 p.m.<br>Every alt. Th 3 | .. | .. | .. | Dr. A. Clark<br>Dr. Ramskill<br>Dr. Hughlings-Jackson<br>Dr. Down<br>Dr. Sutton<br>Dr. Fenwick<br>Dr. Woodman | M 2 Oct.<br>W 3.30 Jan.<br>M 2 Feb.<br>Tu 2 Nov.<br>Tu 2 May<br>M 2 June<br>S 3 July | Nov.<br>Feb.<br>Mar.<br>Dec. | .. | .. |
| CLINICAL SURGERY .. | Mr. Birkett<br>Mr. Forster<br>Mr. Bryant<br>Mr. Durham<br>Mr. Howse<br>Mr. D.-Colley | *Winter* W 1.30<br>*Summer* F 1.30 | .. | .. | .. | Sir W. Fergusson<br>Mr. Wood<br>Mr. Wells, *oph.* | Every alt. Th 3 p.m.<br>Every alt. F 3 p.m.<br>Every alt. M 3 | .. | .. | .. | By the Surgeons | .. | .. | .. | .. |
| DISEASES OF WOMEN .. | Dr. Hicks<br>Dr. Galabin | M 3 | .. | .. | .. | Dr. Playfair | .. | .. | .. | .. | By the Obstet. Physicians | .. | .. | .. | .. |
| PATHOLOGY .. .. .. | Dr. Fagge<br>Dr. Goodhart | 2.30 *win.*<br>S 9 *sum.* | .. | .. | .. | Dr. Beale | Tu Th 4 s. | 2 2 | .. | 3 3 | Dr. Sutton | Th 12.30 | 3 3 | .. | 6 6 |
| **SUMMER SESSION.** | | | | | | | | | | | | | | | |
| MATERIA MEDICA .. .. | Dr. Moxon | Tu Th F 3 | 4 4 | .. | .. | Dr. Baxter | Tu W Th F 8 a.m. | 4 4 | .. | 5 5 | Dr. M. P. James | Tu Th F 4 | 3 3 | .. | 4 4 |
| BOTANY .. .. .. .. | Dr. Stokoe | Tu Th S 11.30 | 4 4 | .. .. | .. | Mr. Bentley | M Tu W F 12.15 | 4 4 | .. | 5 5 | Mr. Baker | M W F 11 | 3 3 | .. | 4 4 |
| FORENSIC MEDICINE .. | Dr. A. Taylor | Tu Th S 10 | 4 4 | .. | .. | Dr. Ferrier | M Tu W F 12.15 | 4 4 | .. | 5 5 | Mr. Rodgers<br>Dr. C. M. Tidy | Daily exc. Sat 10 | 3 3 | .. | 4 4 |
| MIDWIFERY .. .. .. | Dr. B. Hicks | Tu W Th F 9 a.m. | 5 5 | .. | .. | Dr. Playfair | Tu W Th F 9 | 4 4 | .. | 5 5 | Dr. E. Head | M W Th F 3 | 4 4 | .. | 6 6 |
| PRACTICAL CHEMISTRY .. | Dr. Debus | M W F 10 to 1 | 4 4 | .. | .. | Mr C. L. Bloxam<br>Mr Hartley *dem* | M W Th 10.15 | 4 4 | .. | 7 7 | Dr. Letheby | M Th S 9 | 2 2 | .. | .. |
| COMPARATIVE ANATOMY.. | Dr. Pye-Smith | M F 12.15 | 4 4 | .. | .. | Mr A. H. Garrod | Tu F S 10.15 | 3 3 | .. | 4 4 | .. | .. | 3 3 | .. | 4 4 |
| PRACTICAL PHYSIOLOGY AND HISTOLOGY | Dr. Pye-Smith | M F 1 | .. | .. | .. | Dr. Rutherford | M W F | 5 5 | .. | 8 8 | Mr. M'Carthy | .. | 3 3 | .. | 4 4 |
| NATURAL PHILOSOPHY .. | Mr. Reinold | W 12 *win.* | 4 4 | .. | .. | Mr. Adams | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| OPERATIVE SURGERY .. | Mr. D.-Colley | .. | .. | .. | .. | Mr. Wood | .. | .. | .. | .. | Mr. Maunder | .. | .. | .. | .. |
| DENTAL SURGERY .. .. | Mr. Salter<br>Mr. Moon | .. | 5 5 | .. | .. | Mr. Cartwright | Tu F 9, alt Tu 10.30 cl. | 6 6 | .. | 8 8 | Mr. Barrett | .. | 2 2 | .. | .. |
| HYGIENE .. .. .. | Dr. F. Taylor | W 12.15 | 4 4 | .. | .. | Dr. Guy | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| AURAL SURGERY .. .. | Mr. Purves | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| CUTANEOUS DISEASES .. | Dr. H. Fagge<br>Dr. F. Taylor | Tu 12 | .. | .. | .. | Dr. Duffin | Tu 3 | .. | .. | .. | .. | .. | .. | .. | .. |
| OPHTHALMIC SURGERY .. | Mr. Bader | M S. 45 a.m. | .. | .. | .. | Mr. J. S. Wells | M S 9 | 3 3 | .. | .. | Mr. Couper | Tu F S in June | 2 2 | .. | 3 3 |
| DISEASES OF THE THROAT | .. | .. | .. | .. | .. | Dr. Johnson | W 3 | .. | .. | .. | .. | .. | .. | .. | .. |
| PSYCHOL. MEDICINE .. | Dr. Savage | .. | .. | .. | .. | Dr E. Sheppard | .. | .. | .. | .. | .. | .. | .. | .. | .. |

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| MEDICINE | Dr. Chambers<br>Dr. Broadbent | M W Th 4 | 4 4 | .. | 6 6 | Dr. Greenhow | M W F 9 | 6 6 | .. | 8 8 | Dr. Peacock<br>Dr. Murchison | MTh *or* F 2<br>W 5 | .. | .. | .. |
| SURGERY | Mr. J. R. Lane<br>Mr. Gascoyen | Tu F 4 W 3 | 4 4 | .. | 6 6 | Mr. De Morgan | Tu Th S 9 | 6 6 | .. | 8 8 | Mr. S. Jones<br>Mr. MacCormac | M*or* Tu, Th F 5 | .. | .. | .. |
| DESCRIPTIVE & SURGICAL ANATOMY | Mr. Norton | M Tu Th F 2.45 | 6 6 | .. | 8 8 | Mr. Morris | M W Th F 10 | 8 8<br>10 10 | ..<br>.. | 12 12<br>14 14 | Mr. Mason<br>Mr. Wagstaffe | MTuThF 3<br>W 12.30 | .. | .. | .. |
| ANATOMICAL DEMONSTRATIONS | Mr. E. Owen<br>MrC. M. J. Giles *assist. dem.* | Daily 9 to 5 | 3 3 | .. | .. | Dr. R. Liveing | Daily 8 to 5 | 6 6 | .. | 8 8 | Mr. Rainey<br>Mr. R. W. Reid | Daily 9 to 3 | .. | .. | .. |
| PHYSIOLOGY | Dr. Lawson | M W S 12 | 3 3 | .. | 4 4 | Mr. Lowne | M W F 4 | 6 6 | .. | 8 8 | Dr. Ord<br>Dr. J. Harley | M W F 4 | .. | .. | .. |
| EXPERIMENTAL PHYSIOLOGY | Dr. Shepherd | Tu W F 9 | 3 3 | .. | 4 4 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| CHEMISTRY | Dr. C. R. A. Wright | M Tu Th F 9 | 5 5 | .. | 7 7 | Mr. Heiseh | M Tu F S 11 | 6 6 | .. | 8 8 | Dr. Bernays | Tu Th F 12 | .. | .. | .. |
| HOSPITAL PRACTICE: | | | | | | | | | | | | | | | |
| *Physicians* | Dr. H. Jones<br>Dr. Sieveking<br>Dr. Broadbent<br>Dr. A. Meadows, *obs.* | M Th 1.15<br>Tu F 1.15<br>W S 1.15<br>Tu F 10 | 7 7<br>6 mths | 12 12<br>1 year | 21 0 | Dr. Thompson<br>Dr. Greenhow<br>Dr. R. Liveing<br>Dr. J. Hall Davis, *obs.* | Tu Th S 1<br>Tu Th S 1<br>M W F 1.30<br>Tu W F S 1.30 | 5 5<br>6 mths | 8 8<br>12 mths | 15 15 | Dr. Peacock<br>Dr. Bristowe<br>Dr. Clapton<br>Dr. Murchison<br>Dr. Barnes, *obs.* | From 8.30 to 9.30 a.m. | .. | .. | .. |
| *Assistant-Physicians* | Dr. Cheadle<br>Dr. Lawson<br>Dr. Shepherd<br>Dr. Wiltshire, *obs.* | Tu F 1<br>W S 1<br>M Th 1 | .. | .. | .. | Dr. Cayley<br>Dr. R. King<br>Dr. G. H. Evaus | M W 8.30<br>Th 8.30 S 4<br>Tu 8.30 F 4 | .. | .. | .. | Dr. Stone<br>Dr. Ord<br>Dr. J. Harley<br>Dr. Payne<br>Dr. Gervis, *obs.* | | .. | .. | .. |
| *Surgeons* | Mr. Spencer Smith<br>Mr. H. Walton<br>Mr. J. Lane<br>Mr. Gascoyen<br>Mr. Field, *aur.*<br>Mr. H. Walton *oph.* | M Th 1.15<br>W S 1.15<br>Tu F 1.15<br>M Th 1<br>Tu F 2<br>M Th 1 30 | 9 9<br>6 mths | 21 0<br>1 year | 31 0 | Mr. De Morgan<br>Mr. Nunn<br>Mr. Hulke<br>Mr. Lawson<br>Mr. Hulke, *oph.* | M F 1<br>Tu F 1<br>M Th 1<br>Th S 1<br>Tu F 8.30 | 5 5<br>3 mths | 8 8<br>1 year | 15 15 | Mr. Simon<br>Mr. Sydney Jones<br>Mr. Croft<br>Mr. MacCormac<br>Mr. Liebreich, *oph.* | | .. | .. | .. |
| *Assistant-Surgeons* | Mr A. T. Norton<br>Mr. E Owen | W S 1<br>Tu F 1 | .. | .. | .. | Mr. Morris<br>Mr. A. Clark | M F 1<br>Th S 1 | .. | .. | .. | Mr. Mason<br>Mr H. Arnott | | .. | .. | .. |
| CLINICAL MEDICINE | Dr. H. Jones<br>Dr. Sieveking<br>Dr. Broadbent | M 2<br>Every alt. F 2<br>Every alt. S | .. | .. | .. | ThePhysicians | F 3 | .. | .. | .. | By the Physicians | .. | .. | .. | .. |
| CLINICAL SURGERY | Mr. Spencer Smith<br>Mr. H. Walton<br>Mr. J. R. Lane | Every alt. Th 2<br>Every alt. S 2<br>Every alt. Tu | .. | .. | .. | The Surgeons | M 3 | .. | .. | .. | By the Surgeons | .. | .. | .. | .. |
| CLINICAL MIDWIFERY | Dr. Meadows | Every alt. F | .. | .. | .. | .. | .. | .. | .. | .. | Dr. Barnes | Tu 4 | .. | .. | .. |
| DISEASES OF WOMEN | .. | .. | .. | .. | .. | Dr. J. H. Davis | Tu 10 | .. | .. | .. | .. | .. | .. | .. | .. |
| MORBID ANATOMY AND PRACTICAL PATHOLOGY | Dr. Cheadle | Tu F 12 | 3 3 | .. | .. | Dr. Cayley | M Th 4 | 3 3 | .. | 4 4 | Dr. Payne<br>Mr. H. Arnott | Daily 2<br>M 3 to 5 | .. | .. | .. |
| **SUMMER SESSION.** | | | | | | | | | | | | | | | |
| MATERIA MEDICA. | Dr. Farquharson | TuWFS12 | 4 4 | .. | 6 6 | DrThorowgood | M W F 4 | 4 4 | .. | 5 5 | Dr. Payne | M W F 8 | .. | .. | .. |
| BOTANY | Dr. Trimen | M W F 9 | 3 3 | .. | 4 4 | Mr. Hensman | M W F 10 | 4 4 | .. | 5 5 | Mr. A. W. Bennett | Tu Th S 8 | .. | .. | .. |
| FORENSIC MEDICINE | Dr. Randall | M Tu Th 10 | 3 3 | .. | 4 4 | Dr. King | M W F 9 | 4 4 | .. | 5 5 | Dr. Stone and Dr. Gervis | M 2 Tu S 12 | .. | .. | .. |
| MIDWIFERY | Dr. Meadows | Daily ex. S 9 | 4 4 | .. | 6 6 | Dr. J. Hall Davis | Tu Th S 9 | 4 4 | .. | 5 5 | Dr. R. Barnes | MTuThF 3 | .. | .. | .. |
| PRACTICAL CHEMISTRY | Dr. C. R. A. Wright | Tu F S 9 | 3 3 | .. | .. | Mr. Heiseh | M Tu F 11 | 3 3 | .. | .. | Dr. Bernays | Tu Th S 11 | .. | .. | .. |
| COMPARATIVE ANATOMY | Mr. S. G. Mivart | Tu Th 11 | 2 2 | .. | 3 3 | Mr. Hensman | Tu Th 4 | 3 3 | .. | .. | Mr. Stewart | M W 11.30 | .. | .. | .. |
| OPHTHALMIC SURGERY | Mr. H. Walton | Th 2.45 | 2 2 | .. | .. | Mr. Hulke | Alt. Tu 3 | .. | .. | .. | Mr. Liebreich | M 4 | .. | .. | .. |
| MENTAL DISEASES | .. | .. | .. | .. | .. | Dr. Rayner | .. | 3 3 | .. | .. | Dr. W R. Williams | F 12 | .. | .. | .. |
| PUBLIC HEALTH | .. | .. | .. | .. | .. | Dr. G. H. Evans | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| PRACTICAL PHYSIOLOGY AND HISTOLOGY | *See Win. Ses.* | .. | .. | .. | .. | Mr. Lowne | Tu W Th 3 | 4 4 | .. | .. | Dr. Ord<br>Dr. J. Harley | M Th F<br>1.30 to 3.30 | .. | .. | .. |
| AURAL SURGERY | Mr. Field | F 3 | 2 2 | .. | .. | Mr. A. Clark | Tu 9 | .. | .. | .. | .. | .. | .. | .. | .. |
| PRACTICAL AND MANIPULATIVE SURGERY | Med. Tutor | .. | .. | .. | .. | Mr. Hulke<br>Mr. Lawson<br>Mr. Morris | *winter* | 6 6 | .. | .. | Mr. Croft | M*or* Tu*win* 5<br>Tu Th *sum* 3.30 | .. | .. | .. |
| DENTAL SURGERY | Mr. Hayward | W S 9.30 | 2 2 | .. | .. | Mr. Turner | Daily 9 | 5 5 | .. | .. | Mr. Elliott | Tu F 11 | .. | .. | .. |
| DISEASES OF SKIN | Dr. Cheadle | Th 3 | .. | .. | .. | Dr. Liveing | Th 4 | .. | .. | .. | .. | .. | .. | .. | .. |
| PARASITIC DISEASES | .. | .. | .. | .. | .. | Dr Cobbold | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| DISEASES OF THROAT | .. | .. | .. | .. | .. | Mr. A. Clark | Tu 9 | .. | .. | .. | .. | .. | .. | .. | .. |
| GENERAL PATHOLOGY | *See Win. Ses.* | .. | .. | .. | .. | .. | .. | .. | .. | .. | Dr. Bristowe | Th 4 *win.* | .. | .. | .. |
| PHYSICS AND NATURAL PHILOSOPHY | Dr C. R. A Wright | .. | .. | .. | .. | .. | .. | .. | .. | .. | Dr. Stone | S 12 *win.* | .. | .. | .. |
| PRACTICAL PHARMACY | .. | .. | 3 3<br>3 mths | 6 6<br>6 mths | 10 10<br>12 mths | Mr. Lucas | .. | 5 5<br>6 mths | 8 8<br>12 mths | .. | .. | .. | .. | .. | .. |
| Fees for the Lectures and Hospital Practice, for the Licence of the Royal College of Physicians, Society of Apothecaries, and the Royal College of Surgeons | £89 5s. | or in | one | sum | 84 0 | .. | .. | .. | .. | 90 0 | Fee to Practice and all Lectures: £40 1st year, £40 2nd year, £20 3rd year, and £10 for each succeeding year; or £105 at one payment. | | | | |
| To the Lectures alone | .. | .. | .. | .. | 52 10 | .. | .. | .. | .. | .. | | | | | |
| To the Hospital Practice alone | .. | .. | .. | . | 36 15 | .. | .. | .. | .. | 26 5 | | | | | |
| Unlimited | £105, | or in | one | sum | 99 15 | .. | .. | .. | .. | .. | | | | | |

| LECTURES. | UNIVERSITY COLLEGE AND HOSPITAL. | | | | | WESTMINSTER. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Lecturers. | Days and Hours. | Fees. 1 Course | 2 Courses | Perpetual. | Lecturers. | Days and Hours. | Fees. 1 Course | 2 Courses | Perpetual. |
| **WINTER SESSION.** | | | £ s. d. | £ s. | £ s | | | £ s. | £ s. | £ s. |
| MEDICINE | Dr. J. R. Reynolds | Daily ex. M 9 | 6 6 0 | .. | 9 9 | Dr. Anstie | M Tu Th 3 | 5 5 | 7 7 | .. |
| SURGERY | Mr. Marshall | Tu W F 4 | 5 5 0 | .. | 6 6 | Mr. Cowell | Tu Th 4 F 3 | 5 5 | 7 7 | .. |
| DESCRIPTIVE ANATOMY | Mr. Ellis | Daily 12 | 9 9 0 | .. | 11 11 | Mr. Davy | Tu W Th F 12 | 5 5 | 7 7 | .. |
| DEMONSTRATIONS | Mr. Ellis<br>Mr. G. D. Thane<br>Mr. J. A. Pepper<br>Mr. G. B. Browne | Daily | | | | Mr. Cooke<br>Mr. Verdon | Daily 10—1 | 2 2 | 3 3 | .. |
| PHYSIOLOGY AND GENERAL ANATOMY | Dr. B. Sanderson | Daily ex. S 10 | 7 7 0 | .. | 9 9 | Dr. Maclure | M W F 4 | 5 5 | 7 7 | .. |
| HISTOLOGY AND PRACTICAL PHYSIOLOGY | Dr. B. Sanderson | Daily (ex. S) 9 S 11 *win.* | 7 7 0 | .. | 9 9 | Dr. Allchin | Tu F 1-3 | 4 4 | .. | .. |
| CHEMISTRY | Dr. Williamson | Daily ex. S 11 | 7 7 0 | .. | 9 9 | Dr. Dupré | W Th F 3<br>F 3.30 | 5 5 | 7 7 | .. |
| HOSPITAL PRACTICE— | | | | | | | | | | |
| *Physicians* | Sir W. Jenner, Bart., M.D.<br>Dr. Reynolds<br>Dr. W. Fox<br>Dr. S. Ringer<br>Dr. H. C. Bastian | Daily 1 & 2 | .. | .. | .. | Dr. Basham<br>Dr. Fincham<br>Dr. Anstie<br>Dr. Potter, *obs.* | M Th 1.30<br>W S 1.30<br>Tu F 1.30<br>Tu F 3 | 8 8<br>6 months | 12 12<br>1 year | 21 0 |
| | Dr. Graily Hewitt, *obs.* | Three times a week | Hospital Practice and Clinical Instruction: Six months, £7; one year, £10; perpetual, £27 | | | | | | | |
| | Dr. T. Fox, Skin Infirmary | S 9 | | | | | | | | |
| *Assistant-Physicians* | Dr. F. T. Roberts<br>Dr. W. R. Gowers<br>Dr. J. Williams, *asst. obs.* | .. | | .. | .. | Dr. Gibb<br>Dr. Sturges<br>Dr. Allchin<br>Dr. Grigg, *asst. obs.* | Tu F 1<br>W S 1<br>M Th 1<br>Tu F 1 | .. | .. | .. |
| *Surgeons* | Mr. Erichsen<br>Mr. Marshall<br>Sir H. Thompson | Daily 1 & 2 | | .. | .. | Mr. Holthouse<br>Mr. Cowell<br>Mr. Davy | Tu F 1.30<br>W S 1.30<br>M Th 1 | 8 8<br>6 months | 12 12<br>1 year | 21 0 |
| | Mr. Berkeley Hill<br>Mr. C. Heath | | | | 27 0 | | | | | |
| *Assistant-Surgeons* | Mr. Marcus Beck<br>Mr. W. Jones, *oph.*<br>Mr. J. R. Streatfield, *oph.* | M W F 1 | | .. | .. | Mr. Cooke<br>Mr. Bond<br>Mr. Keene | M Th 1<br>Tu F 1<br>W S 1 | | | |
| CLINICAL MEDICINE | Sir W. Jenner<br>Dr. Reynolds<br>Dr. W. Fox<br>Dr. Roberts, *assist. prof.* | M Tu Th F 1—3 | | .. | .. | By the Physicians<br>Dr. Basham, *special lect.* | W Th F | .. | .. | .. |
| | Dr. T. Fox, *skin dis.* | Once a fortnight | | | | | | | | |
| CLINICAL SURGERY | Mr. Erichsen<br>Mr. Marshall<br>Sir H. Thompson<br>Mr. W. Jones, *oph.*<br>Mr. Streatfield, *oph.* | M W S 1—3 | ... | .. | .. | By the Surgeons<br>Mr. Holthouse, *special lect.* | W Th F | .. | .. | .. |
| CLINICAL MIDWIFERY | Dr. G. Hewitt | Fortnightly | .. | .. | .. | Dr. Potter | 1st & 3rd F | .. | .. | .. |
| **SUMMER SESSION.** | | | | | | | | | | |
| MATERIA MEDICA | Dr. Ringer | Daily exc. S 10 | 4 4 0 | .. | 6 6 | Dr. Sturges | M Th F 3 | 3 3 | 4 4 | .. |
| BOTANY | Mr. Oliver | Daily exc. S 8 | 3 3 0 | .. | 4 4 | Mr. E. M. Holmes | M W F 9.30 | 3 3 | 4 4 | .. |
| FORENSIC MEDICINE | Dr. Maudsley | Tu W Th F 10 | 3 3 0 | .. | 4 4 | Dr. Bond<br>Dr. Dupré | Tu W F 3<br>M W F 3 | 3 3 | 4 4 | .. |
| MORBID ANATOMY & PATHOLOGY | Dr. C. Bastian | M Th 9 F 4 | 4 4 0 | .. | 6 6 | Dr. Allchin<br>Mr. Cheyne | M Th 4 Tu 9 | 3 3 | .. | .. |
| MIDWIFERY | Dr. Graily Hewitt | Tu W F S | 4 4 0 | .. | 6 6 | Dr. Potter | Tu W F 4 | 4 4 | 5 5 | .. |
| PRACTICAL CHEMISTRY | Dr. Williamson | Tu W Th F 11 | 4 4 0 | .. | 7 7 | Dr. Dupré | M W F 10-12 | 3 3 | .. | .. |
| COMPARATIVE ANATOMY | .. | Daily except S 3, Oct. to June | 8 8 0 | .. | 9 9 | Mr. Carter Blake | W S 11 | 2 2 | 3 3 | .. |
| PRACTICAL AND OPERATIVE SURGERY | Mr. B. Hill<br>Mr. M. Beck<br>Mr. C. Heath, *oper.* | M Th 4 *win.*<br>Daily in April | 4 4 0 | .. | .. | Mr. Cheyne, *minor surgery* | F 12 | .. | .. | .. |
| DENTAL SURGERY | Mr. Ibbetson | M Th 4 in Jan | 2 2 0 | .. | .. | Mr. Walker | W 9.30 *win.* | 2 2 | .. | .. |
| HYGIENE | Mr. Corfield | Tu Th 4 | 1 1 0 | .. | 3 3 | Dr. Dupré, *with For. Med.* | .. | .. | .. | .. |
| NATURAL PHILOSOPHY | Prof. Foster | M W F 4 *win.* | 6 6 0 | .. | .. | Mr. Brooke | Tu 3 *sum.* | 1 1 | .. | .. |
| OPHTHALMIC SURGERY | Mr. W. Jones | Tu Th | 1 1 0 | .. | .. | Mr. Cowell | M 2.45 | 1 1 | .. | .. |
| PALÆO-ZOOLOGY | .. | Daily except S 3 *sum.* | 1 1 0 | .. | .. | .. | .. | .. | .. | .. |
| MENTAL DISEASES | Dr. Sankey | M Tu W 4 | 2 2 0 | .. | .. | Dr. Sutherland | .. | 1 1 | .. | .. |
| SKIN DISEASES | .. | .. | .. | .. | .. | Mr. Bond | W 4 | .. | .. | .. |
| AURAL DISEASES | .. | .. | .. | .. | .. | Mr. Keene | .. | .. | .. | .. |
| PRACTICAL PHARMACY | Mr. Gerard | .. | 3 3 0 | .. | 5 5 | Mr. Beer. | .. | 3 3 | 5 5 | .. |
| | | | 3 months | | 6 months | | | | | |
| Fees for the Lectures and Hospital Practice for the Licences of the Royal College of Physicians, Society of Apothecaries, and M.R.C.S. | 1st year, £43 17s.; | 2nd, £39 8s.; | 3rd, £18 | 11s. | 105 15 | .. | In 4 payments, £84; | | in 2, £87 | |
| For the Hospital Practice alone | .. | .. | .. | .. | 27 0 | .. | .. | .. | .. | 30 0 |
| Perpetual to Lectures and Hos. Practice | .. | . | .. | . | .. | .. | .. | In one sum | | 80 0 |

ROYAL SCHOOL OF MINES (GOVERNMENTAL).—During the twenty-fourth session (1874-75), which will commence on October 1, courses of lectures and practical demonstrations will be given by the Professors. The fee for students desirous of becoming Associates is £30 in one sum on entrance, or two annual payments of £20, exclusive of the laboratoriee. Pupils are received in the Chemical Laboratory under the direction of Dr. Frankland, in the Metallurgical Laboratory under the direction of Dr. Percy, in the Biological Laboratory under Professor Huxley, and in the Physical Laboratory under Professor Guthrie. These laboratories will be re-opened on October 1. By order of the Lords of the Committee of Council on Education, the instruction in Chemistry, Physics, Applied Mechanics, and Natural History will be given in the new buildings in the Exhibition-road, South Kensington.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.—Office, 24, Finsbury-circus, E.C.—Consulting Physicians—T. B. Peacock, M.D.; J. R. Bennett, M.D.; E. L. Birkett, M.D. Consulting Surgeon—J. Hilton, F.R.S. Physicians—S. H. Ward, M.D.; J. Andrew, M.D.; J. C. Thorowgood, M.D.; H. G. Sutton, M.B. Assistant-Physicians—A. B. Shepherd, M.B.; Eustace Smith, M.D.; W. H. Corfield, M.B.; J. B. Berkart, M.D. Resident Medical Officer—G. C. Franklin. The Hospital affords accommodation for 164 in-patients. During the last year 734 cases were under treatment in the wards, and 12,875 were relieved as out-patients. In-patients admitted since the wards were opened in 1855, 9950; out-patients admitted since the establishment of the institution in 1848, 233,170. Information respecting medical instruction at the Hospital may be obtained on application to the Physicians.

# ADDITIONAL INFORMATION RESPECTING THE METROPOLITAN SCHOOLS, ETC.

## ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.

This Hospital comprises a service of 710 beds, of which 676 are in the Hospital in Smithfield, and 34 are for convalescent patients at Lauderdale House, Highgate.

Whole fee for attendance on lectures and hospital practice 105 guineas, payable by instalments, or a single payment of 100 guineas. Payment in either of these ways entitles to a perpetual ticket.

Four House-Physicians and four House-Surgeons are appointed annually, on the payment of a nominal fee, and are provided with rooms by the Hospital authorities.

The Senior Midwifery Assistant is appointed for twelve months, and is eligible for re-election for a second twelvemonth. The Junior Midwifery Assistant is appointed for six months, and is provided with rooms by the Hospital authorities. The Ophthalmic House-Surgeon, also provided with rooms, is appointed for six months, and is eligible for re-election for a second term of six months. Diligent students are selected to hold these appointments, for which no fee is required.

The Clinical Clerks to the Physicians and to the Physician-Accoucheur, the Clerks and Dressers to the Assistant-Physicians and Assistant-Surgeons, and the Dressers in the special departments, are chosen from the diligent students without payment of any extra fee. Sixteen Ward Dresserships are annually given to the students of the second year who pass the best examinations in the subjects of study of the first and second years, or who may be otherwise specially recommended. Other Ward Dresserships may be obtained by payment of the usual fees.

Courses of Practical Surgery and of Practical Physiology have been instituted in accordance with the regulations of the Royal College of Surgeons.

Special Departments:—Diseases of the Skin (Dr. Duckworth, Friday, at 1.30), Diseases of the Eye (Mr. Power and Mr. Vernon, Tuesday, Thursday, and Saturday, at 1.30), Diseases of the Ear (Mr. Langton, Friday, at 2.30), Orthopædic Surgery (Mr. Willett, Friday, at 12.30), Dental Surgery (Mr. Coleman, Friday, at 9 a.m.).

The following scholarships and prizes are awarded:—Open Scholarship in Science, founded 1873: subjects of examination—Physics, Chemistry, Botany, and Zoology. This Scholarship, of the value of £100, tenable for one year, will be competed for on September 27 and following days. Preliminary Scientific Exhibition, founded 1873: subjects of examination—Physics, Chemistry, Botany, and Zoology. This Exhibition, of the value of £50, is awarded in October. Lawrence Scholarship and Gold Medal, of the value of forty guineas, founded 1873, by the family of the late Sir W. Lawrence. Brackenbury Scholarship in Medicine, and Brackenbury Scholarship in Surgery, founded 1873, by the will of the late Miss Hannah Brackenbury, who left £2000 for this purpose. Senior Scholarship of the value of £50—Anatomy, Physiology, and Chemistry. Junior Scholarships of the value of £50, £30, and £20 are awarded after an examination in the subjects of study of the first year, at the end of the summer and winter sessions. The Jeaffreson Exhibition, of the value of £20, and tenable for two years, is awarded at the commencement of each winter session to the student who passes the best examination in the subjects of preliminary education. The Wix Prize is awarded for the best essay on the following subject—"The Healing Art, so far from tending to Materialism, confirms, by its Induction of Accumulated Evidence of Design, Man's Instincts of Natural Religion; and thus, on St. Paul's showing, prepares his mind for the reception of Revealed Religion." Hichens Prize: subject of examination—Bishop Butler's Analogy. Bentley Prize, for the best report of medical cases occurring in the wards of the Hospital during the previous year. It is expected that the reports will comprise the histories, progress, treatment, and results of not less than twelve cases, with observations thereupon. Foster Prize: subject of examination—Practical Anatomy; senior. Treasurer's Prize: subject of examination—Practical Anatomy; junior. The Kirkes Gold Medal: subject of examination—Clinical Medicine.

An examination of all students of the first year is held at the close of the first winter and first summer sessions.

A College for resident students exists in connexion with the Hospital; Resident Warden, Dr. Norman Moore, from whom students will obtain information respecting rooms in the College, or will be advised regarding residence out of the Hospital.

All communications to be addressed to the Warden of the College, St. Bartholomew's Hospital.

## CHARING-CROSS HOSPITAL.

The session will commence on Thursday, October 1, when the Introductory Address will be delivered by Dr. Douglas Powell at four o'clock p.m.

The Hospital contains 150 beds. This number will be considerably augmented before the termination of the present year, probably making a total of 200 beds. This, together with the thirty-six beds of the adjoining Royal Westminster Ophthalmic Hospital, to the practice of which matriculated students are admitted, will make a total of 236 beds available for clinical teaching.

Besides the ordinary courses included in the medical curriculum, many others are opened to the students, most of them being free on the payment of the matriculation fee of two guineas. Psychological Medicine, Dr. Hunt; Dental Surgery, Mr. Fairbank; Auscultation, Dr. Green; Case-taking, Dr. Powell; Diseases of Children, Dr. Bruce, M.A.; Practical Histology, Dr. Bruce; Laryngoscopic Demonstrations, Dr. Sparks, M.A.; Electro-Therapeutics, Dr. Poore; Aural Surgery, Mr. Bloxam; Practical Surgery—(*a*) Operations, Mr. Bellamy, (*b*) Bandaging, Mr. F. Clarke, (*c*) Pathology, Mr. Bloxam; Skin Diseases, Dr. Sparks; Demonstrations of Bones and Ligaments, Dr. Cantlie; Morbid Histology, Dr. Bruce; Operative Surgery (private class), Mr. Bellamy.

Clinical instruction is given daily by the medical officers of the Hospital; and in addition, special clinical lectures are given weekly by Dr. Silver, and by the Consulting-Surgeon, Mr. Hancock.

*Scholarships, Medals, and Prizes.*—Two entrance scholarships of the value of £30 and £20 respectively, tenable for one year, will be awarded annually in October after a competitive examination in the following subjects:—Compulsory: English, Latin, French or German, Mathematics. Optional (only one of which may be selected): Chemistry, Mechanics, German, or French. The subjects (as regards extent and the authors selected) will be the same as those chosen for the Matriculation Examination of the University of London in the June immediately preceding. Candidates must give notice of their intention to compete on or before Saturday, September 19, 1874. The successful candidates will be required to enter for their medical education at Charing-cross Hospital.

The Llewellyn Scholarship of £25 is open to all matriculated students who have just completed their second academical year. The examination is held at the end of the second summer session, and includes the following subjects:—Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery.

The Golding Scholarship of £15 is open to all matriculated students who have just completed their first academical year. The examination is held at the end of the first summer session, and includes the following subjects:—Descriptive Anatomy, Physiology, Materia Medica, and Chemistry.

*Medals and Certificates of Honour.*—The Governors' Clinical Gold Medal; The competition for this medal is open to matriculated students who shall have completed, at the end of the current session, their attendance on the medical and surgical practice of the Hospital. Candidates are examined on the subjects of clinical lectures delivered during the session, and on medical and surgical cases in the wards of the Hospital. Silver Medals: Silver medals are awarded in all the classes. Bronze Medals: Where two sessions' attendance on a course are required, a bronze medal is awarded in the junior class, in addition to the silver one in the senior class. Certificates of Honour are awarded to both senior and junior students who, not being the most proficient, have yet attained a marked degree of excellence.

*Appointments open to Students.*—Medical Registrar (salary £40 per annum), Surgical Registrar (salary £40 per annum), Resident Medical Officer, Resident Surgical Officer, Resident Obstetrical Officer, Assistant Medical Officer, Assistant Surgical Officer, Clinical Clerkships, Surgeons' Dresserships, and Pathological Assistant.

The fees for the entire course of lectures required by the Examining Boards amount to £76 5s., including a fee of £2 2s. for matriculation (which involves *no* examination), and they may be paid in five separate instalments of nearly equal amount. The first is payable on entrance, the second on the 1st of Feb-

ruary following, and so on, the fifth instalment being due at the commencement of the third year. The composition fee for Dental Surgery, including matriculation, is £42 2s.

Further information may be had of the Librarian, who attends at the office of the School, Chandos-street, Charing-cross, between the hours of ten and four, or of the Dean, Mr. Francis Hird.

## ST. GEORGE'S HOSPITAL.

Perpetual pupils pay at the time of entry a compounding fee of £105. They are admitted to the practice of the Physicians and Surgeons, to all the lectures (except Practical Chemistry), to compete for all prizes and exhibitions, to hold the appointments of House-Physician, House-Surgeon, Assistant House-Physician, Assistant House-Surgeon, Ophthalmic and Orthopædic Assistants, and Clinical Clerk and Dresser for two periods of three months each.

Gentlemen are admitted to the hospital practice and lectures required for the licence of the College of Physicians, for the diploma of Member of the College of Surgeons, and for the licence of the Society of Apothecaries (with the exception of Practical Chemistry), on payment of the following fees—viz., £42 for the first year of study, £42 for the second year of study, and £10 10s. for each succeeding year. By payment of these fees pupils are entitled to hold the office of Clinical Clerk and Dresser, and to become candidates for the offices of Medical and Surgical Registrars, and Demonstrator of Anatomy, to each of which offices a salary of £50 is attached. An Obstetric Assistant, with a salary of £100 and board and residence is annually elected from amongst those students who have obtained a legal qualification to practise. Pupils may also enter to the hospital practice and lectures separately.

The appointments of House-Physician and House-Surgeon are made every six months, are four in number, and are tenable for one year. These appointments are awarded after examination, and are given without fee or payment, each officer being lodged and boarded at the expense of the Governors of the Hospital. The whole of the patients are under the charge of these officers in the absence of the Physicians and Surgeons.

*Exhibitions and Prizes.*—"The William Brown Exhibitions," of £100 per annum, tenable for two years, and of £40 per annum, tenable for three years, to be competed for by perpetual pupils who have recently obtained their diploma, or have nearly completed their studies. The examinations embrace all departments of practical knowledge. The Brackenbury prizes of £35 each in Medicine and Surgery: Awarded annually after a competitive examination. The Treasurer's Clinical Prize of £10 10s., the gift of A. Shaw Stewart, Esq., to be competed for annually. Sir Charles Clarke's Prize for good conduct: The interest of £200 Consols, to be awarded annually to the student of the Hospital "who, by reason of his general good conduct during the preceding year, should be considered the most deserving." The Thompson Medal: A silver medal to be awarded annually for the best clinical report of medical and surgical cases observed in the Hospital during the preceding twelve months. Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the perpetual pupil of the Hospital who shall have delivered to the Surgeons the best report of not more than twenty surgical cases which have occurred in the Hospital during the preceding twelve months. Dr. Acland's Clinical Prize in Medicine will be awarded to the perpetual pupil of the Hospital who shall produce the best report of not more than twenty medical cases which have occurred in the Hospital during the preceding twelve months. The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in practical anatomy. General Proficiency Prizes: To pupils in their first year, £10 10s.; to pupils in their second year, £10 10s.; to pupils in their third year, £10 10s.

For further particulars apply to Dr. Barclay, Treasurer, or Dr. Wadham, Dean of the School.

## GUY'S HOSPITAL.

This Hospital contains nearly 720 beds.

*Voluntary Examinations* are held at four periods of the students' course, as follows:—1st. At entrance, commencing on October 7, in Elementary Classics, Ancient and Modern History, and Mathematics. The candidate who most distinguished himself receives £25; the second candidate, £20; the third, £15. 2nd. At the end of the first sessional year, in all the subjects of that year—one sum of £30, another of £25, and a third of £10 10s. (presented by one of the Governors). 3rd. At the end of the second sessional year, in the subjects which form the course of study up to that time—£35 and £30. 4th. At the end of the third sessional year, in all the subjects of the curriculum—£40 and £35. Honorary certificates are also given to candidates who pass creditable examinations.

*Special Examinations.*—Two gold medals are given annually by the Treasurer to students who have completed their third, and not exceeded their fourth, year—the one for Clinical Medicine, the other for Clinical Surgery.

The fees for hospital practice and lectures are as follows:—For the first year, £40; for the second year, £40; and £20 for the third; and £10 for succeeding years of attendance. £105 entitles a student to a perpetual ticket. Materials used in practical courses are charged extra.

Students are selected according to merit for the following appointments:—House-Physicians, House-Surgeons, and Obstetric Residents (Senior and Junior), Surgeon's Dressers, Clinical Assistants, Dressers in the Eye Wards, Post-mortem Clerks, Obstetric Out-patient Clerks, Assistant-Physician's Clerks, Assistant-Surgeon's Dressers, Dressers in the Surgery, Dental Surgeon's Dressers, Aural Surgeon's Dressers, Medical Clinical Clerks, Surgical Clinical Clerks, Extern Obstetric Attendants, Assistant-Surgeon's Clerks, Clerks in the Electrifying-room.

The Registrars and the Demonstrators in Anatomy and Chemistry assist the pupils in their studies.

For further information apply to the Secretary (Mr. Stocker), or the Dean (Dr. F. Taylor).

## KING'S COLLEGE.

The fees, amounting to £100, may be paid either in one sum on matriculation or in three amounts at the commencement of each winter session. Students are, however, recommended to add £2 2s. for a second course of Chemistry, as well as the fee for attendance on the medical tutor's class for one year—viz., £3 3s. All resident students are required to attend the tutor (Dr. J. H. Philpot) during their first year.

Resident Medical Officers, Clinical Clerks, and Dressers are chosen by examination from matriculated students who are pupils of the Hospital.

*Scholarships.*—Warneford Scholarships: The sum of £200 is set apart annually for scholarships in the Medical Department—viz., "For the encouragement of the previous education of medical students," two scholarships of £25 per annum for three years; "For the encouragement of resident medical students," one scholarship of £25 per annum for two years. College Scholarships: The following are given every year to matriculated students of this department:—1. One of £40 for two years, open to students of the third and fourth year; 2. One of £30 for one year, open to students of the second year; 3. One of £20 for one year, open to students of the first year. Daniell Scholarship: £20, tenable for two years, is open to every student of the College who has worked in the laboratory for at least six months. Sambrooke Registrarships: Two of £50 every year.

*Prizes.*—Leathes Prizes: Bible and prayer-book to two matriculated medical students. Warneford Prizes: £40 is expended in the purchase of medals and books as prizes to two matriculated medical students. Class Prizes are awarded annually for proficiency in each subject of study; these consist of books of the value of £3. Two Medical Clinical Prizes, one of £3 for the winter session and the other of £2 for the summer session; and two Surgical Clinical Prizes of the same value are given for attendance at the Hospital. Todd Medical Clinical Prize: This prize was founded in memory of the late Dr. Todd. It consists of a bronze medal and books to the value of £4 4s. Tanner Prize: £10, for proficiency in the study of Obstetric Medicine.

*Residence of Students.*—A limited number may reside within the College.

For further information apply to Professor Bentley, Dean of the Medical Department.

## THE LONDON HOSPITAL.

During the winter session, lectures on Anatomy, Physiology, Chemistry, Pathology and Morbid Anatomy, Medicine, Surgery, and Dental Surgery will be given. Clinical lectures and clinical instruction will be regularl yand systematically delivered on the cases occurring both in the clinical and in the ordinary medical and surgical wards. There will be clinical lectures on the cases in the wards for diseases of women, and

clinical instruction in the obstetric out-patient rooms, as well as in the special departments for diseases of the eye, ear, and skin.

During the summer session, lectures on Midwifery and Diseases of Women, Materia Medica, Botany, Comparative Anatomy, Practical Histology and the Use of the Microscope, Pathology and Morbid Anatomy, Practical Chemistry, Forensic Medicine, Syphilis, Diseases of the Eye and Use of the Ophthalmoscope, Diseases of the Skin, Diseases of the Throat and Use of the Laryngoscope, will be given.

Clinical lectures and clinical instruction will be delivered, as in the winter session, in connexion with every branch of practice.

*Table of Fees.*—General fee for perpetual attendance on all the lectures with two years' Practical Anatomy, and for attendance on medical and surgical practice, qualifying for examination at most of the medical and surgical boards, 90 guineas; composition fee for gentlemen entering at or before the beginning of their second winter session, their first year having been spent elsewhere, 70 guineas; perpetual fee for lectures with two years' Practical Anatomy and hospital practice, 100 guineas; perpetual fee for lectures alone, 50 guineas; perpetual fee for hospital practice alone, 50 guineas. Extra fees: Practical chemistry (for apparatus, etc.), £2 2s.; subscription to the library (compulsory), £1 1s. *Note.*—The general fee and the perpetual fee are payable in two instalments of 45 guineas and 50 guineas each respectively, at the commencement of each of the first two years of attendance. If preferred, the *perpetual* fee can be paid in three instalments —45 guineas at the commencement of each of the first two years of attendance, and 10 guineas at the commencement of the third year. The composition fee is payable in two instalments of 35 guineas.

*Scholarships and Prizes.*—Seven scholarships will be offered for competition during the ensuing winter session. The two Buxton Scholarships will be awarded in October to the students who distinguish themselves most in the subjects appointed by the General Council of Medical Education and Registration as the subjects of the preliminary examinations. 1. A scholarship, value £30, to the student placed first in the examination. 2. A scholarship, value £20, to the student placed second in the examination. 3. A scholarship, value £20, will be awarded to the first year student who shall pass in April, 1875, the best examination in Human Anatomy. 4. A scholarship, value £25, will be awarded to the first year or second year student who shall pass at the end of the winter session the best examination in Anatomy, Physiology, and Chemistry. 5. A hospital scholarship, value £20, for proficiency and zeal in Clinical Medicine. 6. A hospital scholarship, value £20, for proficiency and zeal in Clinical Surgery. 7. A hospital scholarship, value £20, for proficiency and zeal in Obstetrics. A prize of £5 is also awarded to the student who has attended most midwifery cases for the hospital during the previous twelve months. The Duckworth-Nelson Prize, value £10, will be awarded by competition at the end of the winter session, 1875, and will be open to all students who have not completed their education. The subjects of examination will be Practical Medicine and Surgery. Money prizes, to the value of £60 per annum, are awarded by the House-Committee to the most meritorious of the dressers in the out-patient rooms. The special conditions may be learnt on inquiry. The offices of Resident Medical Officer, Junior Resident Medical Officer, four Medical Assistants, Clinical Clerks, Resident Accoucheur, Maternity Pupils, four House-Surgeons, Surgical Dressing Pupils, two Medical Clinical Assistants, two Surgical Clinical Assistants, Medical Registrar, Surgical Registrar, Assistant-Dentist, Post-mortem Clerks, and two Prosectors of Anatomy, are open to the students.

Communications addressed to the Dean or Vice-Dean of the School, at the London Hospital Medical College, Turner-street, Mile-end, London, E., will receive immediate attention.

## ST. MARY'S HOSPITAL.

The Hospital contains 170 beds—68 medical, and 102 surgical. There are special departments for the Diseases of Women and Children, and for Diseases of the Eye, the Ear, the Skin, and the Throat.

A Medical Tutor assists the students daily in the practical portion of their studies in the wards, and in preparing for the final examinations. Special instruction is given to students preparing for the examinations of the University of London.

*Appointments in the Hospital and School.*—All these appointments are open to the pupils without additional fee, and are held in succession, so as to secure a complete system of clinical training. Five of these appointments exceed in value an equal number of scholarships of £50 each. All general students are required to perform the duties of Clinical Clerks and Dressers for a period of six months during the last two years of their curriculum. Students of the third year are appointed to assist the Physicians and Surgeons in charge of the out-patients. A Resident Registrarship within the Hospital has been created, with a salary of £100 a year and dispensary fees, tenable for one year *and open to re-election*, preference being given to past House-Surgeons and perpetual pupils. The Demonstrator of Anatomy is appointed annually, with a salary of £50 a year. The Medical Tutor is also appointed annually, at a salary of £100 a year. The holders of both these appointments are eligible for re-election.

*Scholarships, Prizes, etc.*—Three scholarships in Natural Science, tenable for three years, and an exhibition in Natural Science, for one year. One of the scholarships and the exhibition are awarded by open competitive examination at the commencement of the winter session. A scholarship in Anatomy, of the annual value of £20 (the holder of which is styled Assistant-Demonstrator, and assists in the teaching of Practical Anatomy), is offered for competition amongst those students who have completed their second winter session; and a scholarship in Pathology, of the value of £20 (the holder of which is styled Assistant-Curator), for those students who have completed their third winter session. Examinations for prizes are held at the termination of each session in the various classes for students of the first, second, and third year. Two Prosectors are appointed annually, who each receive a certificate and £5 for their services in the dissecting-room.

The entrance fee for general students may be paid in instalments by arrangement with the Dean of the School. Students who have kept the two years' course at the University of Cambridge are admitted as perpetual pupils on payment of 55 guineas, and those who have kept a portion of the course elsewhere at a proportionate reduction. A fee of £1 1s. is required to be paid to the library and reading-room. Instruction in vaccination can be obtained; fee £1 1s.

Further information may be obtained from Dr. Shepherd, Dean of the School; or from the Registrar, at the Hospital.

## MIDDLESEX HOSPITAL.

This Hospital contains upwards of 300 beds, of which 185 are for surgical, and 120 for medical cases. There is a special department for cancer cases, affording accommodation for thirty-three in-patients, whose period of residence in the Hospital is unlimited. Wards are also appropriated for the reception of cases of uterine disease and of syphilis, and beds are set apart for patients from diseases of the eye. There are special out-patient departments for diseases of the skin, the throat, the eye, and ear.

Special attention is bestowed on the clinical instruction of the students both in the wards and out-patient rooms. Classes, open to all the students, are held for practical instruction in the microscopic examination of healthy and diseased tissues, and also in the application of bandages and other surgical apparatus. Students are allowed, under certain regulations, to take books from the library of the school to read at their own homes. Two entrance scholarships of the annual value of £25 and £20, tenable for two years, are offered for competition at the commencement of the winter session. Two Broderip Scholarships of the annual value of £30 and £20, tenable for two years, and a clinical prize of ten guineas, are annually awarded to those students who pass the most satisfactory examination at the bedside and in the post-mortem room. The Governors' Prize of twenty guineas is awarded annually to the student who shall have most distinguished himself during his three years' curriculum. Class prizes are also given. The Clinical Clerkships and Dresserships are open to students free of charge. Nine resident clinical appointments are annually awarded, after competitive examination, to students who have completed their education, and complied with the regulations of the school. The officers thus appointed reside and board in the Hospital free of expense.

The College Tutors assist all general students free of charge, especially those who are preparing for examination, and their instruction is arranged with a view to avoid the necessity of students obtaining any private teaching apart from that of the medical school.

The fee for attendance on the hospital practice and lectures

required by the Colleges of Physicians and Surgeons and the Society of Apothecaries is £90 if paid in advance, or £35 on entrauce, £35 at the beginning of the second winter session, £20 at the beginning of the third winter session, and £10 for every additional year's attendance.

Dental students who intend to become Licentiates in Dental Surgery of the Royal College of Surgeons are admitted to attend the requisite courses of lectures and hospital practice on payment of a fee of forty guineas, either in one payment, or by instalments of tweuty-five guineas on entrance, and fifteen guineas at the beginning of the second winter session.

## ST. THOMAS'S HOSPITAL.

The admission fee to hospital practice and all the lecturcs is £40 for the first year, and a similar sum for the second, £20 for the third, and £10 for each succeeding year; or £105 at one payment for unlimited attendance. Special entries may be made to any course of lectures, or to the hospital practice.

There are spccial departments for diseases of the eye, diseases of women and children, vaccination, diseases of the skin, diseases of the teeth, and mental diseases.

*Prizes and Appointments.*—A scholarship has been founded by Sir W. Tite, M.P., F.R.S., the proceeds of £1000 Consols, tenable for three years, ou proof of continued residence and good conduct. Preference, in case of equality between students, to be given to the son of a medical man, and more particularly of one who has been educated at St. Thomas's Hospital, or is in practice at Bath. To the three most distinguished pupils for general proficiency, the following prizes are awarded:—First year's students—winter, £20, £15, £10; summer, £15, £10, £5. Second year—winter, £20, £15, £10; summer, £15, £10, £5. Clinical and obstetrical clerks and dressers are selected according to merit from among second year's students. The dressers and obstetric clerks are provided with rooms and commons during their period of attendance in the Hospital free of expense. Third year's students—winter, £20, £15, £10. The Cheselden Medal, founded by George Vaughan, Esq., is awarded in respect of a special examination in Surgery and Surgical Anatomy. The Solly Medal, with a prize of at least £10 10s., will be awarded at the end of the session to third, fourth, fifth, or sixth year's students for the best report of surgical cases. The Treasurer's Gold Medal is given annually for general proficiency and good conduct. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to the third or fourth year's students for a physiological essay, to be illustrated by preparations.

The House-Physicians, the House-Surgeons, and Resident Accoucheur are chosen from gentlemen who have obtained their professional diplomas. All are provided with rooms and commons. The two offices of Medical Registrar and Surgical Registrar are from time to time filled from among gentlemen who have completed their studies in the school. Each Registrar, on completing his annual report to the satisfaction of the Physicians and Surgeons, receives a gratuity of £40.

*Operating Days.*—Weducsdays at 1.30 p.m.; Thursdays (ophthalmic) at 3 p.m.; Saturdays at 9.30 a.m. and 1.30 p.m.

For further information apply to Mr. Whitfield, Medical Secretary, St. Thomas's Hospital, London, S.E.

## UNIVERSITY COLLEGE.

The winter session begins on October 1, and ends on March 28. The summer session begins on May 3, and ends on July 17.

*Scholarships and Exhibitions.*—The Atkinson Morley Surgical Scholarship, of £45 per annum, tenable for three years, is awarded every year for proficiency in the theory and practice of Surgery. The Sharpey Physiological Scholarship, of about £85 a year, for proficiency in Biological Science. The Filliter Prize of £30, for proficiency in Pathological Anatomy. Dr. Fellowes' Clinical Medals, one gold and one silver, each winter and summer session, and certificates of honour, for reports and observations on the medical cases in the Hospital. The Liston Gold Medal, and certificates of honour, for reports and observations on the surgical cases in the Hospital. The Alexander Bruce Gold Medal, for Pathology and Surgery. The Cluff Memorial Prize, awarded every other year for proficiency in Anatomy, Physiology, and Chemistry. Gold and silver medals, as well as certificates of honour, are awarded as class prizes. The Jews' Commemoration Scholarship of £15 a year, tenable for two years, for students of the Faculty of Arts or of Science, o one year's standing, may be held by students who, after obtaining it, enter the Medical Faculty.

*Entrance Exhibitions.*—Three Entrance Exhibitions, of the respective values of £30, £20, and £10 per annum, tenable for two years, are awarded upon examination to gentlemen who are about to commence their first winter's attendance in a medical school. The next examination will be held at the College on September 24 and 25, 1874. Notice of intention to compete must be given to the Secretary on or before September 16.

*Analytical Chemistry.*—The Birkbeck Laboratory is open daily from 9 a.m. to 4 p.m. Fees, exclusive of the expense of materials: session, £26 5s.; three months, £10 10s.; one month, £4 4s.

Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, Ward Clerks, and Ophthalmic Surgeon's Assistants, are selected from pupils without additional payment. The Physicians' Assistants, Obstetric Assistant, and House-Surgeons reside in the hospital, paying for their board.

Further information and detailed prospectuses may be obtained at the office of the College.

## WESTMINSTER HOSPITAL.

The entry fee to lectures and hospital practice required by the College of Physicians and Surgeons and the Society of Apothecaries may be paid in one sum of £80, which is perpetual, in two payments of £42 and £40 each, at the commencement of the first two years, or in four payments of 28, 14, 25, and 13 guineas respectively, at the commencement of the first four sessions.

In addition to the practice of the Hospital, which contains 191 beds, the general students of this school are admitted to the practice of the Royal Westminster Ophthalmic Hospital, and to that of the National Hospital for Epilepsy and Paralysis.

*Prize Appointments.*—A House-Physician, House-Surgeon, and Resident Obstetric Assistant are appointed annually, by examination, from amongst the senior students, without the payment of any fee. The Medical and Surgical Registrars, each of whom receives a salary of £40, are also appointed annually. The Assistant House-Surgeon and the Clinical Clerks and Dressers are open to the diligent students, as are also the posts of Physician's Assistant, Surgeon's Assistant, and Ophthalmic Assistant.

*Prizes.*—In addition to the appointments above enumerated, there are two entrance scholarships of £20 and £10, each tenable for two years, an exhibition in Anatomy and Physiology for first year's men, a scholarship of twenty guineas in Anatomy and Physiology for second year's men, a prize of the value of £21 for general proficiency, and two clinical prizes of the value of five guineas each. Certificates of honour are also awarded to the most meritorious students.

Much care is bestowed on the teaching of Physiology, and a new Laboratory has recently been built with a view to increased efficiency.

Full particulars as to courses of lectures and mode of instruction will be found in the published calendar, and any further information may be obtained by personal application to Mr. Cowell, the Dean of the School, or to Dr. Allchin, the Sub-Dean.

# ENGLISH PROVINCIAL SCHOOLS AND HOSPITALS.

## THE QUEEN'S COLLEGE, BIRMINGHAM.

*Professors in the Medical Faculty.*—Winter Courses: Medicine, Dr. Balthazar Foster. Surgery, Mr. Pemberton, Mr. Furneaux Jordan. Anatomy, Mr. W. Thomas, M.B. Physiology, Dr. Norris, Mr. T. H. Bartleet, M.B. Chemistry, Dr. Alfred Hill. Demonstrators of Anatomy, Dr. Robert Jolly, Mr. H. Campbell Pope. Summer Courses: Midwifery, Mr. John Clay, Dr. John Bassett. Diseases of Women and Children, Mr. Samuel Berry, Dr. R. C. R. Jordan. Forensic Medicine and Toxicology, Mr. J. St. S. Wilders, Dr. Alfred Hill. Practical Chemistry, Mr. Anderson. Botany, Dr. William Hinds. Materia Medica and Therapeutics, Dr. Edward Mackey. Ophthalmic Surgery, Mr. J. Vose Solomon. Dental Surgery, Mr. Thomas Howkins. Comparative Anatomy, Dr. Thomas Savage. Medical Tutor, H. Campbell Pope, M.R.C.S.

*Resident Tutors.*—The Warden and Professor of Theology, the Professor of Classics, the Professor of Mathematics, and the Medical Tutor.

*Hospital Practice.*—At the General and Queen's Hospitals.

*Scholarships and Prizes.*—The Sands Cox Prize, of the value of £20, is given annually in the medical department. The Warden's Prize, of the value of £5 5s., offered by the Rev. H. C. Ogle to the most proficient student of the first year. Class Prizes.—Medals and certificates of honour are awarded annually in each class after examination.

The composition fee for all the lectures required by the Examining Boards is fifty guineas, payable by two equal instalments. Fees for rooms and board of resident students £50 per annum.

## THE GENERAL AND QUEEN'S HOSPITALS, BIRMINGHAM.

The practices of these Hospitals are amalgamated for the purpose of clinical instruction under the direction of the Birmingham Clinical Board, by whose order all schedules will be signed and all examinations conducted. The Hospitals have a total of upwards of 400 beds. 4500 in-patients and 45,000 out-patients are treated annually.

The Introductory Clinical Address will be delivered on Wednesday, October 7, 1874, by Mr. Wilders, at the Queen's Hospital, at 3.30 p.m. The Clinical Prizes will be distributed after the Address.

The General Hospital, Birmingham.—Consulting-Surgeon: D. W. Crompton, F.R.C.S. Physicians: Dr. Fletcher, Dr. Russell, Dr. Wade, Dr. Foster, Dr. Rickards. Surgeons: Mr. Baker, Mr. Pemberton, Mr. Bartleet, Mr. Goodall, Mr. Jolly.

*Days and Hours of Attendance.*—Dr. Fletcher will visit the wards at 9 a.m. on Mondays and Thursdays; Mr. Baker at 9 a.m. on Tuesdays and Saturdays. Clinical Medicine at 10 a.m.: Mondays, Dr. Foster; Tuesdays, Dr. Russell; Fridays, Dr. Wade or Dr. Rickards. Clinical Surgery at 10 a.m.: Wednesdays, Mr. Pemberton; Thursdays, Mr. Goodall or Mr. Jolly; Saturdays, Mr. Bartleet.

The Queen's Hospital, Birmingham.—Consulting-Physician: Alexander Fleming, M.D. Consulting-Surgeon, W. Sands Cox, F.R.S. Consulting Obstetric Surgeon: Samuel Berry, F.R.C.S. Physicians: Dr. Heslop, Dr. Johnston, Dr. Sawyer, Dr. Mackey. Surgeons: Mr. West, Mr. Gamgee, Mr. Furneaux Jordan, Mr. Wilders. Obstetric Surgeon: Mr. John Clay. Acting Ophthalmic Surgeon: Mr. Priestley Smith. Pathologist: Mr. Thomas. Dental Surgeon: Mr. C. Sims.

*Days and Hours of Attendance.*—Clinical Medicine at 9.15 a.m.: Mondays, Dr. Heslop or Dr. Johnston; Wednesdays, Dr. Heslop or Dr. Johnston; Thursdays, Dr. Sawyer or Dr. Mackey; Saturdays, Dr. Sawyer or Dr. Mackey. Clinical Surgery at 10 a.m.: Mondays, Mr. West; Tuesdays, Mr. Priestley Smith; Wednesdays, Mr. Gamgee; Thursdays, Mr. Wilders; Fridays, Mr. Jordan.

The Obstetric Department is under the charge of Mr. John Clay; out-patients seen on Mondays and Thursdays, at 9 a.m. The Ophthalmic Department is under the charge of Mr. Priestley Smith; out-patients seen on Tuesdays and Fridays, at 9 a.m. Pathological Demonstrations by Mr. Thomas. The Dental Department is under the charge of Mr. Charles Sims; out-patients seen on Wednesdays and Saturdays, at 9 a.m.

Special Instruction is given at the Hospitals in the use of the Microscope, Laryngoscope, Ophthalmoscope, in Case-taking, and the Art of Prescribing. Practical Pharmacy is taught in the Dispensaries of the Hospitals.

*Appointments Open to Students.*—At the General Hospital: Resident Medical Assistant, Resident Surgical Assistant, and two Resident Dressers, tenable for six months. At the Queen's Hospital: Resident Obstetric Assistant, tenable for six months.

*Clinical Prizes.*—The following prizes will be given annually:—Senior Medical Prize, for third and fourth year students: First Prize, £5 5s.; Second Prize £3 3s. Senior Surgical Prize: First Prize, £5 5s.; Second Prize, £3 3s. Junior Medical Prize, for second year students: First Prize, £3 3s.; Second Prize, £2 2s. Junior Surgical Prize: First Prize, £3 3s.; Second Prize, £2 2s. Midwifery Prize, £4 4s.

The examinations for all the appointments and prizes will be conducted by the Clinical Board, and will be open for competition to all students registered by the Clinical Board.

*Scale of Fees.*—Fees for attendance for four years (the period required by the University of London and the Colleges of Physicians and Surgeons, etc.) on the medical and surgical practice, and on the clinical lectures at both Hospitals, £31 10s. N.B. This payment may be made in two equal sums—the first on entrance, and the second at the commencement of the second year. One year's attendance, £15 15s.; six months' attendance, £10 10s. Special Department for Midwifery and Diseases of Women (optional), £2 2s. Dental Fee (optional), £1 1s.

*Regulations for Attendance.*—All students will be required to attend six months alternately at each Hospital, as they may be directed by the Clinical Board, excepting students who enter for six months only, who will be allowed to choose the Hospital they wish to attend.

*Registration of Tickets.*—The Register of Tickets for attendance on hospital practice is open at the Hospitals from October 1 to October 15, 1874, and from May 1 to May 15, 1875. The fees are to be paid to Dr. Jolly, Newhall-street.

Any further information may be obtained from either of the Honorary Secretaries. Bell Fetcher, M.D., is Chairman, and Robert Jolly, M.D., and James Sawyer, M.D., are the Hon. Secs. of the Birmingham Clinical Board.

## BRISTOL MEDICAL SCHOOL.

The winter session will commence on Thursday, October 1, 1874. Medicine, Dr. Martyn and Dr. Spencer. Surgery, Mr. Coe and Mr. Tibbits. General Anatomy and Physiology, Mr. Atchley and Dr. Smith. Descriptive and Surgical Anatomy, Mr. Board and Mr. Dobson. Superintendence of Dissections, Messrs. Chute, Lawrence, and Waldo. Chemistry, Mr. Coomber.

The summer session will commence on May 3, 1875. Midwifery and Diseases of Women, Dr. J. G. Swayne. Forensic Medicine, Mr. W. P. Keall. Materia Medica and Therapeutics, Dr. G. F. Burder. Botany, Mr. A. Leipner. Practical Chemistry, Mr. Coomber. Pathological Anatomy, Dr. Martyn and Dr. Spencer. Comparative Anatomy, Mr. Atchley.

Fee for perpetual attendance on all the above courses, except Comparative Anatomy, £57 15s.

Competitive examinations are held amongst students of the first, second, and third years respectively; and prizes of money, instruments, and books are annually awarded.

Medical and surgical hospital practice and clinical lectures are attended at the Royal Infirmary or at the General Hospital.

Further information may be obtained on application to the Honorary Secretary, Dr. G. F. Burder.

## BRISTOL ROYAL INFIRMARY.

This Infirmary contains 242 beds. Physicians: Dr. Fairbrother, Dr. Fox, Dr. Spencer, Dr. Smith. Surgeons: Mr. Leonard, Mr. Tibbits, Mr. Steele, Mr. Board, and Mr. Dowson. House-Surgeon: Mr. Chute. Secretary: Wm. Trenerry.

*Fees.*—For one year, Surgeon's pupil, £12 12s.; Dresser (extra fee), £12 12s. For two years (at one payment), Surgeon's pupil, £21; Dresser (extra fee), £21. For three years (at one payment), Surgeon's pupil, £26 5s.; Dresser (extra fee), £26 5s. Dressers reside in the house in weekly rotation. Physician's pupil, for six months, £8; one year, £15; eighteen months, £20; perpetual, £25. Clinical Clerks are appointed without extra fee. A gold medal and other prizes are awarded annually.

## BRISTOL GENERAL HOSPITAL.

This Hospital, founded in 1832, is situated in a populous district near the docks, collieries, manufactories, and railway stations, from which sources the wards are supplied with a great variety of important cases. The present building was completed and occupied in 1858, and is furnished with many modern improvements. It contains 154 beds, in addition to which the out-patient department affords a large and instructive field of observation. The number of patients treated during the past year was 13,098.

Honorary and Consulting Physician: Henry E. Fripp, M.D., M.R.C.P. Honorary and Consulting Surgeons: W. Michell Clarke, M.R.C.S., L.S.A.; Henry Marshall, M.D., F.R.C.S. Ed., F.R.S. Ed. Physicians: Samuel Martyn, M.D., F.R.C.P., Lecturer on Medicine and Pathological Anatomy; George F. Burder, M.D., M.R.C.P., Lecturer on Materia Medica and Therapeutics. Surgeons: Robert W. Coe, F.R.C.S., Lecturer on Surgery; F. Poole Lansdown, M.R.C.S., L.S.A.; George F. Atchley, M.B., M.R.C.S., Lecturer on Physiology and Comparative Anatomy; Nelson C. Dobson, F.R.C.S., Lecturer on Anatomy. Physician-Accoucheur: Joseph G. Swayne, M.D., Lecturer on Midwifery. House-Surgeon:

Thomas Elliott, B.A., M.B. Physicians' Assistant: John Howell Thomas, L.R.C.P., M.R.C.S. Assistant House-Surgeon: Percy Owen-Jones, M.R.C.S. Dentist: T. C. Parson, M.R.C.S.

## CAMBRIDGE UNIVERSITY MEDICAL SCHOOL.

The winter session will commence on October 8. Winter Courses.—Anatomy: Professor Humphry and Dr. Wilson. Anatomy and Physiology: Professor Humphry. Practical Physiology: Dr. Michael Foster. Superintendence of Dissections: Professor Humphry and Dr. Wilson. Medicine: Professor Paget. Chemistry: Professor Liveing. Practical Chemistry: Professor Liveing and Mr. Hicks. Physics: Professor Maxwell. Zoology and Comparative Anatomy: Professor Newton. Demonstrator of Comparative Anatomy: Mr. Bridge. Materia Medica: Professor Fisher. Summer Courses.—Practical Physiology: Dr. Michael Foster. Osteology: Professor Humphry and Dr. Wilson. Practical Histology: Dr. Wilson. Chemistry and Practical Chemistry: Professor Liveing and Mr. Hicks. Comparative Anatomy, Dissections: Mr. Bridge. Pathology: Dr. Bradbury. Botany: Professor Babington.

## ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

This Hospital contains 120 beds. Physicians: Dr. Paget, Dr. Latham, Dr. Bradbury. Surgeons: Mr. Lestourgeon, Dr. Humphry, Mr. Carver. Clinical lectures are given weekly by the Physicians and Surgeons, and practical instruction is given daily by the Resident Physician and the Resident Surgeon. Fees for attendance upon the practice (Medical and Surgical), £15 15s. for an unlimited period: £10 10s. for one year; £8 8s. for six months.

## UNIVERSITY OF DURHAM.—COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE.

*Winter Session, commencing October* 1, 1873.—Physiology, the Professor of Physiology and Biology in the Colleges of Medicine and Physical Science. Anatomy, Dr. Nesham, Dr. Armstrong, and Mr. Russell. Medicine, Dr. Philipson. Surgery, Dr. Heath. Chemistry, Professor Marreco, M.A. Practical Physiology, the Professor of Physiology and Biology in the Colleges of Medicine and Physical Science. Mental Diseases, Mr. Wickham.

*Summer Session.*— Midwifery, Dr. Gibson. Botany, Mr. H. E. Armstrong. Medical Jurisprudence, Dr. B. Bramwell. Materia Medica, Dr. Arnison. Therapeutics, Dr. Humble. Practical Chemistry, Professor Marreco, M.A. Operative Surgery, Dr. Heath. Pathological Anatomy, Dr. Gibb. Pharmacy, Mr. Proctor.

*Fees for Lectures.*—Composition fee for all the lectures qualifying for the Licence in Medicine and the Mastership in Surgery of the University of Dublin, the Licence and Membership of the Royal College of Physicians, the diploma of the College of Surgeons, and the licence of the Apothecaries' Society, payable on entering to the first winter session, £52 10s. Perpetual ticket for Pharmacy curriculum, £12 12s. Separate courses of lectures, each £4 4s. The composition fee entitles the holder to attend the lectures on Botany, Chemistry, Materia Medica, and Pharmacy, and to use the Museum of Materia Medica in the library of the College.

*Hospital Practice.*—This can be attended at the Newcastle Infirmary, which contains 230 beds.

*Fees for Hospital Practice.*—Twelve months, £7 7s.; six months, £5 5s.; three months, £4 4s.; perpetual fee, £17 17s.; or, if paid by instalments, first year £7 7s., second year £6 6s., third year £5 5s. These fees also are payable in advance.

*Medical Scholarships in the University of Durham.*—Four scholarships, of £25 a year each, tenable each for four years. Dickinson Memorial Scholarship, £15, tenable for one year, for general proficiency. By a recent Act of Convocation, students may now proceed to the degrees of M.D. and C.M. of the University of Durham by keeping the necessary terms in Arts either at Durham or Newcastle. Four Resident Dressers, who also act as Physicians' Clinical Clerks, are chosen every six months from the senior students. Fee for six months' board and residence, £10 10s.

*College Medals.*—At the end of each session a silver medal and certificate of honour will be awarded in each of the required classes.

Further particulars may be obtained from Dr. Luke Armstrong, Registrar, or of Dr. Arnison, Secretary.

R. H. B. Wickham, F.R.C.S., Medical Superintendent of the Cox Lodge Lunatic Asylum, will deliver a course of lectures on Psychological Medicine, illustrated by cases in the Asylum, to students in their third and fourth years, during the latter half of the winter session. Due notice will be given of the time.

Medical Tutor and Demonstrator, J. Reoch, M.A., M.B., M.C., who will superintend and assist the students in their studies, and during the summer session will give a complete course of Practical Physiology.

## NEWCASTLE-UPON-TYNE INFIRMARY.

This Infirmary contains 230 beds. Medical and Surgical clinical lectures are delivered, and clinical instruction is given in the wards. There are special wards for the treatment of children, ophthalmic and syphilitic diseases. Physicians: Dr. Embleton, Dr. Phillipson, and B. Bramwell, M.B. Surgeons: Dr. Heath, Mr. Russell, Dr. Arnison, and Dr. Armstrong. Assistant-Surgeons: Mr. A. Bell, Dr. Hume, Mr. J. Hawthorn, and Mr. C. S. Jeaffreson. Senior House-Surgeon: Dr. Page. Junior House-Surgeon: G. Mickle, M.B. Fees for hospital practice and clinical lectures:—Twelve months, seven guineas; six months, five guineas; three months, four guineas. Perpetual fee, seventeen guineas; or, if paid by instalments—first year seven guineas; second year, six guineas; third year, five guineas. Four resident Clinical Clerks and four non-resident Dressers are nominated by the Medical Board half-yearly.

## LEEDS SCHOOL OF MEDICINE.

The winter session will commence on Thursday, October 1, 1874. Anatomy, by Dr. Robert T. Land, and Mr. John A. Nunneley. Physiology, by Messrs. C. J. Wright, James Walker, and John Horsfall. Principles and Practice of Medicine, by Dr. John D. Heaton and Dr. T. C. Allbutt. Principles and Practice of Surgery, by Messrs. Claudius G. Wheelhouse, T. Pridgin Teale, and T. R. Jessop. Chemistry by Mr. Thomas Fairley. Materia Medica, by Dr. John E. Eddison. Midwifery, by Mr. W. Hall. Forensic Medicine, by Mr. Thomas Scattergood. Pathology, by Mr. Oglesby. Botany, by Mr. Edward Atkinson. Comparative Anatomy, by Mr. C. G. Wheelhouse and Dr. T. C. Allbutt. Demonstrators of Anatomy, Messrs. Robert Parr Oglesby, Edmund Robinson, and J. A. F. McGill. Demonstrations in Operative Surgery, by Messrs. C. G. Wheelhouse, Pridgin Teale, and T. R. Jessop. Demonstrations of Skin Diseases are given at the Infirmary. Ophthalmoscopic Demonstrations, by the Surgeons of the Eye and Ear Department of the Infirmary. Total fees, entitling to all the lectures and hospital practice required by the licensing boards, £88 4s. These fees may be paid at once, or in two instalments at the commencement of the first and second years. Entrance fee to library and reading-room, £1 1s., to be paid by all students on entrance. Class prizes, two clinical prizes of £10 each, a Forensic Medicine prize of £10, and two chemical scholarships are awarded to students. House-Surgeoncies, Clinical Clerkships, and Dresserships are open to the students.

*Honorary Medical Officers of the Hospital.*—Consulting Physician: Charles Chadwick, M.D. Consulting Surgeons: William Hey, F.R.C.S., and Samuel Hay, F.R.C.S. Physicians: John Deakin Heaton, M.D., T. Clifford Allbutt, M.D., and John Edwin Eddison, M.D. Surgeons: C. G. Wheelhouse, F.R.C.S.; T. Pridgin Teale, M.A., F.R.C.S.; T. R. Jessop, F.R.C.S.; and Edward Atkinson, M.R.C.S.

*Terms of Attendance upon the Hospital Practice.*—The fees for attendance upon the medical practice alone, or upon the surgical practice alone, are as follows, being the same in each case:—One winter session, £7 7s.; one summer session, £6 6s.; twelve months, £12 12s.; eighteen months, £15 15s.; three years, £21. Applications for medical practice are to be made to Dr. Heaton, Claremont, between nine and ten a.m. Applications for surgical practice are to be made to Mr. T. Pridgin Teale, Cookridge-street, between ten and twelve a.m.

## SHEFFIELD SCHOOL OF MEDICINE.

The winter session will commence on October 1. Anatomy, Descriptive and Surgical, Mr. Skinner and Mr. E. Skinner. Demonstrations of Anatomy, Messrs. Clarke, Skinner, and T. H. Morton. Physiology, Mr. Thos. Leeds and Mr. S. Morton. Principles and Practice of Medicine, Dr. Bartolomé and Dr. Hall. Principles and Practice of Surgery, Mr. W. F. Favell, Mr. Parker, and Mr. A. Jackson. Chemistry, Mr. Allen. Dental Mechanics, Mr. G. Mosely. Clinical Medicine, Dr. Bartolomé, Dr. Law, and Dr. Frank-Smith. Clinical Surgery, Mr. Barber, Mr. W. F. Favell, and Mr. Parker.

Summer session, commencing, May 1, 1873.—Midwifery and Diseases of Women, Dr. Hime. Materia Medica and Therapeautics, Dr. Young. Medical Jurisprudence and Toxicology, Mr. Baker and Mr. Harrison. Botany, Mr. Birks. Practical Chemistry, Mr. Allen. Dental Surgery, Dr. Merryweather. Demonstrations of Pathology and Microscopy, the House-Surgeon (at the Infirmary). Demonstrations of Operative Surgery, Mr. Favell and Mr. Parker, F.R.C.S. Demonstrations of Practical Histology and Physiology, Dr. Thomas. Practical Surgery, the House-Surgeon, at the Infirmary.

*Medical and Surgical Practice.—Sheffield General Infirmary.*—Physicians, Dr. Bartolomé, Dr. Law, Dr. Frank-Smith. Surgeons, Mr. Barber, Mr. Favell, Mr. Parker. House-Surgeon, Mr. Laver.

The Infirmary contains 200 beds for in-patients.

The fees for perpetual attendance at the Infirmary are £15 15s. for medical, £21 for surgical, practice. For twelve months' practice: Medical, £10 10s.; surgical, £6 6s. Six months': Medical, £6 6s.; surgical, £4 4s.

*Public Hospital and Dispensary.*—100 beds. Physicians: Dr. J. Hall, Dr. Law, and Dr. H. J. Branson. Surgeons: Mr. Chesman, Mr. A. Jackson, and Dr. Keeling. House-Surgeon, Mr. Thorpe.

*Sheffield Hospital for Diseases of Women.*—Medical Officers: Dr. Jackson, Dr. Keeling, Dr. Hime, and Mr. Woolhouse.

*Tables of Fees, including Demonstrations.*—Anatomy and Physiology, first course, £6 6s.; second course, £4 4s. Practice of Medicine, first course, £4 4s.; second course, £2 2s. Practice of Surgery, first course, £4 4s.; second course £2 2s. Chemistry, first course, £4 4s. Midwifery and Diseases of Women, first course, £3 3s. Materia Medica, first course, £3 3s. Medical Jurisprudence, first course, £3 3s. Botany, first course, £3 3s. Practical Chemistry, first course, £3 3s. Practical Physiology, £3 3s. Practical Surgery, £3 3s.

For further information apply to the staff of the institution.

Perpetual fee for attendance on all the lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £42.

All further information may be obtained on application to the Hon. Secretary, Arthur Jackson, St. James's-row, Sheffield.

## LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

The introductory address will be delivered on October 1, 1874, at 3 p.m., by Mr. T. Shadford Walker.

*Hospital Practice, Royal Infirmary.*—Physicians: Dr. Turnbull, Dr. Waters, Dr. Glynn. Surgeons: Mr. Bickersteth, Mr. Hakes, Mr. Harrison. Assistant-Surgeon: Mr. Banks. Pathologist: Mr. Parker. Dental Surgeon: Mr. Snape.

Terms for Hospital Attendance and Clinical Lectures:—For six months' medical practice, £5 5s.; one year, £6 6s. For six months' surgical practice, £6 6s.; one year, £8 8s.

*Lectures, Winter Session.*—Medicine, Dr. Waters. Surgery, Mr. Harrison. Physiology, Dr. Caton. Anatomy, Mr. W. M. Banks. Dissection, Mr. Harris. Pathology, Dr. Davidson. Chemistry, Dr. Brown. Practical Physiology, Rushton Parker, M.B.

*Lectures, Summer Session.*—Midwifery, Dr. Steele. Diseases of Children, Dr. Gee. Materia Medica, Dr. Nevins. Medical Jurisprudence, Dr. E. Whittle. Toxicology and Practical Chemistry, Dr. Brown. Botany, Dr. W. Carter. Comparative Anatomy and Zoology, Dr. Dickinson.

*Exhibitions.*—Four exhibitions (value £31 10s. each), consisting of six months' free board and residence in the Royal Infirmary.

The fee for all the lectures required by the Colleges of Surgeons and Physicians and the Apothecaries' Hall is forty-five guineas (exclusive of Practical Chemistry).

## LIVERPOOL NORTHERN HOSPITAL.

The winter session will commence on Thursday, October 1. Physicians: Dr. Davidson and Dr. Dickinson. Surgeons: Mr. Manifold, Mr. Lowndes, and Dr. Graham.

The Hospital contains 144 beds. Clinical clerkships and dresserships are open to all the students, without additional fee. Clinical prizes will be awarded at the termination of the winter session.

*Fees for Hospital Practice and Clinical Lectures.*—Perpetual, 25 guineas; one year, 10 guineas; six months, 7 guineas; three months, 4 guineas. Students can enter to the medical or surgical practice separately, on payment of half the above fees. The Hospital receives one resident pupil, fee 60 guineas per annum. Attendance on the practice of this Hospital qualifies for all the examining boards.

For further particulars apply to the House-Surgeon, Mr. Harris.

## ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

Two hundred beds. Clinical lectures, with special instruction in the employment of medical and surgical instruments, in bandaging, and in minor surgery, are regularly given during winter and summer sessions. Accommodation for resident pupils. The lectures and practice are recognised by all the examining boards.

*Fees for Practice and Lectures.*—Perpetual, 25 guineas; one year, 10 guineas; six months, 7 guineas; three months, 4 guineas.

For further particulars apply to the House-Surgeons.

## THE OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.

Director of Medical Studies: Professor Southam, F.R.C.S.

*Winter Session.*—General Anatomy and Physiology, Professor Wm. Smith, F.R.C.S.; Practical Physiology and Histology, Professor Arthur Gamgee, M.D., F.R.S.; Anatomy, Descriptive and Practical, Professor Morrison Watson, M.D., J. B. Perrin, M.R.C.S., F.L.S., F.K.C., London (Demonstrator); Comparative Anatomy, Professor W. C. Williamson, F.R.S.; Chemistry, Professor Henry E. Roscoe, B.A., Ph.D., F.R.S.; Organic Chemistry, Professor C. Schorlemmer, F.R.S.; Principles and Practice of Medicine, Professor William Roberts, M.D., F.R.C.P., Professor J. E. Morgan, M.D., M.A. Oxon., F.R.C.P.; Principles and Practice of Surgery, Professor George Southam, F.R.C.S., Professor Edward Lund, F.R.C.S.; Clinical Medicine, the Physicians to the Royal Infirmary; Clinical Surgery, the Surgeons to the Royal Infirmary.

*Summer Session.*—General Pathology and Morbid Anatomy, Henry Simpson, M.D. Lond.; Julius Dreschfeld, M.D.; Midwifery and Diseases of Women and Children, John Thorburn, M.D.; Materia Medica and Therapeutics, Alexander Somers, M.R.C.S., Daniel John Leech, M.B. Lond.; Forensic Medicine, G. Morley Harrison, M.R.C.S.; Ophthalmology, Thomas Windsor, M.R.C.S.; Practical Chemistry, Professor Henry E. Roscoe, F.R.S.; Botany, Professor W. C. Williamson, F.R.S.; Hygiene and Public Health, Arthur Ransome, M.D., M.A. Cantab. Medical Tutor: J. Beswick Perrin, M.R.C.S., F.L.S. Registrar: J. Holme Nicholson.

The first complete medical school founded in the provinces was organised in Manchester by the late Mr. Turner in October, 1824. This school, known for many years as the Pine-street School, enrolled among its early teachers many distinguished names, among which that of the illustrious Dalton stands pre-eminently conspicuous. In 1850 a second school was established in Chatham-street, which for eight years competed successfully with its older rival in the work of medical education. In 1858 the founders of these schools came to the conclusion that they would best promote the interests of future medical students by bringing together whatever educational strength they severally possessed, forgetting their differences, and working together for the common weal. In this way, from the union of the Pine-street and Chatham-street schools that school arose, which has long been honourably known as the Manchester Royal School of Medicine.

The authorities of Owens College and the School being favourably disposed towards each other, a munificent donation of ten thousand pounds from the late Miss Brackenbury (towards the establishment of a School of Medicine in connexion with the College) gave an impulse to an amalgamation scheme, which was finally carried out.

As regards the course of instruction which will be afforded to the students, it may be stated that three of the most important chairs, those of Anatomy, Physiology, and Chemistry, will be held by professors who will almost entirely devote their time to the work of instructing the students.

The new buildings will be opened by Professor T. H. Huxley, F.R.S., on Friday, October 2, 1874, at 3 p.m.

The winter session comprises two terms, viz.—Michaelmas Term, commencing October 1, 1874, ending December 23, 1874; Lent Term, commencing January 11, 1875, ending March 31, 1875.

The registration of students will take place in the new school, Coupland-street entrance, on October 1, 2, and 3, from

9 to 11 a.m. From October 5 to 15, when the register will be finally closed, the registration will be continued daily, in the school, from 12 to 1 p.m. Each candidate for admission will be required to produce (1) a testimonial of good character from his last instructor, or such other testimonial as shall be satisfactory to the principal; (2) a certificate of having passed the necessary preliminary examination in general knowledge. Each student is, on his admission, required to sign a declaration of submission to the rules and regulations for the time being.

The lectures and anatomical demonstrations will be given in the new Medical School, except some special courses which it may be found convenient still to give in the old premises, 10, Faulkner-street. Lectures will commence on Monday, October 5.

The summer session will commence on Saturday, May 1 1875, and terminate about the end of July. The attendance of all students on lectures is registered. Certificates of attendance will be granted to those students only whose attendance and conduct throughout the whole session have been satisfactory.

A composition fee, which may be paid in one sum of £48, or in two sums of £25 each at the commencement of the first and second years of studentship, admits to the whole of the lectures required to qualify for the examinations for medical degrees in the University of London, the diplomas of the Royal College of Physicians, the Fellowship and Membership of the Royal College of Surgeons, and the licence of the Apothecaries' Society. In addition to the composition fee, all students (except those who entered before May 1, 1873) will be required to pay the medical tutor's fee, £2 2s., annually. Students not desiring to attend the complete course of study may attend any one or more of the courses at the following fees for each session:—Physiology, £5 5s.; Practical Physiology and Histology, £4 14s. 6d.; Descriptive Anatomy, £5 5s.; Practical Anatomy (Dissections), £3 3s.; Comparative Anatomy £4 14s. 6d., or exclusive of the Demonstrations, £3 3s.; Chemistry Lectures, and Junior Tutorial Classes, £3 3s.; Medicine, £5 5s.; Surgery, £5 5s.; Ophthalmology, £3 3s.; General Pathology and Morbid Anatomy, £4 4s.; Obstetric Medicine, £4 4s.; Materia Medica, £4 4s.; Forensic Medicine, £4 4s.; Practical Chemistry £4 4s., additional charge for Chemicals £1 1s.; Botany, £2 12s. 6d.; Hygiene and Public Health, £2 12s. 6d.

Museums of Human and Comparative Anatomy and Materia Medica are attached to the School.

SCHOLARSHIPS AND PRIZES.

Examinations of third year's students are held at the end of the winter session, and of second and first year's students at the end of the summer session. In these examinations three Scholarships are offered annually to be competed for by students who have entered for the complete course, viz.:—One of £20 for third year's students, one of £15 for second year's students, and one of £10 for first year's students. Prizes will also be given for general proficiency.

*Platt Physiological Scholarships.*—Two Scholarships of £50 each, tenable for two years, one of which is offered annually, are open to the competition of all students of the College who shall have studied Physiology in the College Laboratory during one entire session, and whose age on January 1 preceding the examination shall be not under eighteen nor over twenty-five years. The first competition will take place in October, 1874. The Scholarship will be awarded for the best original investigation in Physiology prosecuted in the College Laboratory, and on the results of a written examination in Physiology and such subjects connected therewith as shall be prescribed. The Scholarship will not be awarded on the ground of comparative merit only. The candidate elected to the Scholarship will be required to attend during one year of his tenure the practical class in the Physiological Laboratory of the College, and during the other year the same or some other Physiological Laboratory in England or on the Continent approved of by the Council and the Senate of the College. If no original investigation shall have been carried on worthy of the Scholarship, the Council may, if they think fit, award one or more exhibitions to the candidate or candidates who shall have been most distinguished in the examination.

*Dumville Surgical Prize.*—Value £20. The prize will consist of books or surgical instruments at the option of the winner. Candidates must have studied in the Medical Department and the Manchester Royal Infirmary during the winter session of 1873-74, the summer session of 1874, and the winter session of 1874-75, and have attended four courses of lectures, including one, at least, on Surgery. The examination will be conducted by means of written answers to questions on the principles and practice of Surgery, including Surgical Anatomy, and, at the option of the examiners, will also include the examinations of patients and operations on the dead subject, together with reports of three surgical cases which have occurred in the wards of the Manchester Royal Infirmary during the preceding six months:—The reports to comprise the history, progress, treatment, and results (with observations thereon) of these cases. The examination will take place at the end of the winter session, 1874-75. Notice of intention to compete must be sent to the Registrar in writing not later than seven days before the examination.

*Gilchrist Scholarships.*—Three of £50 each, tenable for three years, one of which is annually awarded to the candidate who shall stand highest at the matriculation examination of the University of London in June, provided that they pass in the Honours Division; and, failing such, two of £25 each will be given to the two candidates who stand highest in the First Division. Further particulars will be found in the Calendar and the Prospectus of Scholarships, Exhibitions, and Prizes.

For Prizes offered for the course of hospital study, see the Royal Infirmary Prospectus.

## MANCHESTER ROYAL INFIRMARY.

*Officers of the Infirmary.*—Treasurer: Hugh Birley, Esq., M.P. Medical and Surgical Staff:—Consulting Physicians: Sir James Bardsley, M.D., Peter Wood, M.D., R. F. Ainsworth, M.D., Frank Renaud, M.D. Physicians: M. A. Eason Wilkinson, M.D., Thomas H. Watts, M.D., Henry Browne, M.D., William Roberts, M.D., Henry Simpson, M.D., John E. Morgan, M.D. Surgeons: Mr. William Smith, Mr. George Southam, Mr. F. A. Heath, Mr. Edward Lund, Mr. George Bowring. Obstetric Physician: John Thorburn, M.D. Ophthalmic Surgeon: Mr. Thomas Windsor. Assistant-Physicians: Daniel J. Leech, M.B., Julius Dreschfeld, M.D. Assistant-Surgeons: Mr. S. M. Bradley, Mr. W. Whitehead. Dental Surgeon: Mr. G. W. Smith. Resident Medical Officer: George Reed, M.D. Medical Superintendent of the Royal Lunatic Hospital at Cheadle: Mr. G. W. Mould. Pathological Registrar: Mr. Thomas Jones. Secretary: Mr. B. Brown.

The Manchester Royal Infirmary has been greatly extended in recent years by the establishment of the Lunatic Hospital at Cheadle, of the Barnes Convalescent Home, and of the Monsall Fever Hospital. All these establishments are under the same Board of Management as the Royal Infirmary, and are served by the same medical staff. The Infirmary also embraces a nurse-training institution, consisting of a staff of about eighty skilled nurses, who are available not only for the service of the Infirmary, but also for the use of private patients in Manchester and the surrounding districts. The Infirmary itself contains 100 medical and 170 surgical beds. The annual average number of out and home patients is over 15,000, and the list of casualties in the Accident-room exceeds 5500 per annum. The associated hospitals (exclusive of the Lunatic Asylum) contain together 540 beds.

*Students' Fees.*—Medical Practice: Three months, 6 guineas; six months, 9 guineas; twelve months, 12 guineas; full period required by the Examining Boards, 18 guineas. Surgical Practice: Three months, 9 guineas; six months, 12 guineas; twelve months, 18 guineas; full period required by the Examining Boards, 30 guineas. Composition Fee: The fees for the full periods required by the Examining Boards of both medical and surgical practice may be paid by a composition fee of £42 on entrance, or by two instalments of £22 each at an interval of twelve months.

*Clinical Prizes.*—Medical and Surgical Clinical Prizes, each of the value of 6 guineas, are open to competition in each year, for the best reports (with comments) of cases which have occurred in the wards of the Infirmary.

*Appointments Open to the Students.*—Two Senior House-Surgeons, two Junior House-Surgeons, two House-Physicians, and four Physicians' Assistants are appointed in each year. These officers hold their appointments for six months, and receive board, residence, and salary, and preference is given, as far as possible, to gentlemen who have diligently attended the practice of the Infirmary.

The Infirmary is open daily for the purposes of instruction, from 8.30 a.m. until noon. The visits of the medical staff will be made between these hours. Operations are performed

in the operating theatre, at eleven on Fridays, and at such other times as may be necessary.

Clinical Clerks and Dressers will be appointed at the beginning of October, January, and May, and will hold their appointments for three months. Accident-room Dressers will be appointed every two months, and will hold their appointments for two months.

The following special classes will be conducted:—Medical Demonstrations, by Dr. Leech. Surgical Demonstrations, by Mr. Bradley and Mr. Whitehead. Pathological Demonstrations, by Dr. Dreschfeld. Post-mortem Examination, by Mr. T. Jones, Pathological Registrar. Medical Clinical Class, by Dr. Roberts in the winter session, and Dr. Simpson in the summer session. Surgical Clinical Class, by Mr. Southam and Mr. Lund in the winter session, and Mr. Smith and Mr. Heath in the summer session. Ward classes will also be conducted by the other Physicians and Surgeons, at such times as shall be hereafter announced. Dr. Simpson will give instruction in the use of the laryngoscope and the application of remedies to the Throat. Dr. Wilkinson will attend at the Monsall Fever Hospital every Saturday morning during the winter session, at eleven o'clock, for the purpose of giving senior students an opportunity of gaining clinical experience in the diagnosis and treatment of cases of fever, small-pox, scarlet fever, measles, and other Contagious Diseases. Mr. Windsor will give practical lessons on the examination of the eye and its accessory parts, and clinical instruction in the diagnosis and treatment of Diseases of the Eye. Dr. Thorburn will conduct a class of clinical instruction in the Diseases of Women at the Royal Infirmary. Midwifery cases can be attended by students of the Infirmary, under the direction of Dr. Thorburn. Mr. G. W. Smith will give instruction in the operations of Dental Surgery, and the management of the teeth. Mr. G. W. Mould will give demonstrations of the various forms of Insanity to senior students during the summer session. Instruction in Practical Pharmacy is given in the Laboratory and Dispensary of the Infirmary on the payment of a fee for three months of three guineas, for six months of five guineas. The certificates of proficiency and instruction in Vaccination required by the Privy Council and the Royal College of Surgeons may be received from Mr. Ellis Guest, at 72, Rochdale-road, subject to the payment of the fee charged by that gentleman.

## MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

### UNIVERSITY OF EDINBURGH.—1874-75.

Principal—Sir Alex. Grant, Bart., LL.D.

The session will be publicly opened with an introductory address by the Principal, on Monday, November 2, 1874. The classes for the different branches of study will be opened as follows, and will meet daily (Saturdays excepted) unless otherwise stated:

*Faculty of Medicine.*—Materia Medica, Professor Sir Robert Christison, Bart., M.D.; Chemistry, Professor Crum-Brown, M.D., D.Sc.; Surgery, Professor Spence; Institutes of Medicine or Physiology, vacant; Midwifery and Diseases of Women and Children, Professor Simpson, M.D.; Clinical Surgery, Professor Lister; Clinical Medicine, Professors Bennett, Laycock, Maclagan, and Sanders; Anatomy, Professor Turner, M.B.; Natural History, Professor Wyville Thomson; Practice of Physic, Professor Laycock, M.D.; General Pathology, Professor Sanders, M.D.; Anatomical Demonstrations, Professor Turner; Botany, Professor Balfour, M.D.; Medical Jurisprudence, Professor Maclagan, M.D. The lectures on Botany, Natural History, and Medical Jurisprudence are given in the summer session.

Royal Infirmary, at noon daily. Practical Anatomy, Wednesday, October 1, under the superintendence of Professor Turner. Practical Chemistry, under the superintendence of Professor Crum-Brown. Practical Physiology, under the superintendence of the Professor.

During the summer session, lectures will be given on the following subjects:—Botany, Professor Balfour; Practical Physiology, including Histology, Professor Bennett; Medical Jurisprudence, Professor Maclagan; Clinical Medicine, Professors Bennett, Laycock, Maclagan, and Sanders; Clinical Surgery, Professor Lister; Anatomical Demonstrations, Professor Turner; Practical Chemistry, under the direction of Professor Crum-Brown; Practical Anatomy, under the superintendence of Professor Turner; Natural History, Dr. Carus for Professor Wyville Thomson; Medical Psychology and Mental Diseases, with practical instruction at an asylum, Professor Laycock; Operative Surgery, Professor Spence; Practical Pathology and Morbid Anatomy, Professor Sanders; Clinical Gynæcology, Professor Simpson.

*Rights of the Medical Graduates of Scotland according to the Medical Act.*—Before the passing of the Medical Act of 1858, the degree of Doctor of Medicine granted by the universities of Scotland (as the possessor underwent a complete education and examination in all departments of Physic and Surgery), qualified the graduate to practise every branch of the Medical profession throughout Scotland. One principal purpose of the Medical Act was to extend local rights of practice over the whole of Her Majesty's dominions. But according to the hitherto accepted reading of a dubious clause in the Act, no one can practise both Medicine and Surgery without possessing two distinct diplomas—one for Medicine and another for Surgery. The universities were thus compelled, in justice to their graduates, to give them the additional title of Master in Surgery, not as implying any additional study or examination, but as declaring more distinctly their qualifications, and to permit registration as regularly qualified practitioners in the whole field of their professional education. The Secretary for War some time ago issued an order that candidates for admission into the Medical Service of the Army should obtain their qualifications in Physic and Surgery from two different sources; the effect of which would have been to prevent any one university from qualifying for this purpose. The Scottish Universities' Commissioners, recognising the serious evils of such a system, followed up a remonstrance which had been offered on the part of the University of Edinburgh, and obtained the rescinding of all restrictions in the source of qualification. Consequently, any single university in Scotland can now qualify candidates for the military service as well as for any other public medical service in the country.

*Minimum Cost of Attending the Medical Classes, with the Order of Study.*—Whilst there is no authorised order of study, the usual course is given below; Preliminary Examination in Arts to be taken in the month of March or October, before entering medical classes. By order of the General Medical Council, all medical students require to be registered as such within fifteen days after the commencement of the session. Students are recommended to commence their medical studies by attending the summer session. First Summer Session, total cost £9 8s., viz.: Preliminary examination fee, 10s.; matriculation fee, 10s.; Botany (garden fee, 5s.), £4 4s.; Natural History, £4 4s. First Winter Session, total cost £17 16s., viz.: Matriculation (for whole year), £1; Anatomy, £4 4s.; Practical Anatomy, £3 3s.; Chemistry, £4 4s.; hospital, £5 5s. (perpetual ticket, £10). Second Summer Session, total cost £8 8s., viz.:—Practical Chemistry, £3 3s.; examination in Botany, Natural History, and Chemistry, in October following,(a) £5 5s.; and Botany or Natural History (if not attended previously). Second Winter Session, total cost £14 13s., viz.: Matriculation, £1; Institutes of Medicine, £4 4s.; Surgery, £4 4s.; hospital, £5 5s.; and examination in Botany, Natural History, and Chemistry, in April, if not previously passed. Third Summer Session, total cost £4 4s., viz.: Practical Pharmacy, £2 2s.; dispensary, £2 2s.; and the hospital. Third Winter Session, total cost £19 18s., viz.: Matriculation, £1; Materia Medica, £4 4s.; Pathology, £4 4s.; Clinical Surgery, £4 4s.; dispensary, £1 1s.; examination in Anatomy, Physiology, Materia Medica, Pathology, in April or July, £5 5s.; and the hospital. Fourth Summer Session, total cost £4 4s., viz.: Medical Jurisprudence, and the hospital and clinical lectures. Fourth Winter Session, total cost £15 17s., viz.: Matriculation, £1; Practice of Medicine, £4 4s.; Midwifery, £4 4s.; Practical Midwifery, £1 4s.; Clinical Medicine, £4 4s.; Vaccination, £1 1s.; and the hospital. Fifth Summer Session: Final examination for M.B. and C.M., £10 10s., and the hospital. Total minimum expenses for M.B. and C.M., £104 18s.

Only one course of instruction on each subject is here stated, that being the minimum.

*Fees for Degrees.*—Examination in Botany, Chemistry, Chemical Testing, and Natural History, £5 5s.; examination in

(a) For those who have certificates for two summer sessions and one winter session, and who have attended two courses during each of these three sessions.

Anatomy, Physiology, Materia Medica, Pathology, £5 5s.; final examination in Surgery, Midwifery, Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Prescriptions, during last summer session, £5 5s. Total fees for M.B. diploma, £15 15s. Additional fee for C.M. diploma, £5 5s.; additional fee for M.D. diploma, £5 5s.; Government stamp duty (for M.D. only), £10.

*Note.*—Total fees and stamps for graduating as M.D. only, by regulations for students commencing before February, 1861, £25.

N.B.—The above fees include all charges for the diplomas. The fees for examination must be paid ten days before the dates thereof; and the fees for degrees of C.M. and M.D., and stamp duty for the latter, must be paid on or before July 15 in the year of graduation.

MEDICAL FELLOWSHIPS, SCHOLARSHIPS, BURSARIES, AND PRIZES.

*Fellowships.*—The Falconer Memorial Fellowship, value £100, tenable for two years. It is for the encouragement of the study of Palæontology and Geology, and is open to graduates in Science or Medicine of the University of not more than three years' standing. The next appointment may be made in October, 1874. The Syme Surgical Fellowship, value about £100, tenable for two years; open to competition among Bachelors of Medicine of not more than three years' standing, who shall present the best thesis on a surgical subject, giving evidence of original research. The first award may be made in August, 1874.

*Scholarships.*—The Sibbald Scholarship, value about £40, tenable for four years. The next vacancy may be in 1875.

*Bursaries.*—The Abercrombie Bursary of £20, tenable for four years, is open to students who have been brought up in Heriot's Hospital, during their medical curriculum. The Sibbald Bursaries are open to the sons of duly registered medical men practising or who may have practised in Scotland, and to the sons of parents who are or who may have been householders in Edinburgh. They are of the value of £30 each, tenable for four years, and available for the Faculty either of Arts, Law, Medicine, or Divinity. One will be filled up in session 1874-75. One Grierson Bursary of £25 a year, tenable for three years, to be competed for by students who have reached the end of their first winter session; subjects of examination to be Chemistry, Botany, and Natural History. One Tyndall-Bruce Bursary of £25, tenable for one year, to be competed for by students who have reached the end of their third winter session; subjects of examination to be Materia Medica and Pathology.

The above three Bursaries are to be awarded in November, 1874-75.

Competitors for the above bursaries must have studied the subjects of examination at the University of Edinburgh; and these are not to be held along with any other bursary or fellowship.

*Prizes.*—The Ettles Medical Prize is awarded annually to the graduate in Medicine whom the Medical Faculty may consider the most distinguished of the year. Value about £40. The Hope Chemistry Prize, open to all students of the University of not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory of the University, will be filled up in July, 1874. Names to be given in to the Professor of Chemistry on or before June 15. Value £100. The Neil Arnott Prize, of about £40, is awarded to the candidate who shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. Candidates must have been medical students of this University during either a summer or a winter session, and the successful candidate must continue a medical student of this University during the winter session. No student can appear for examination after the completion of his third *annus medicus;* no candidate shall be allowed to offer himself more than once. The Ellis Prize, for the best essay "On the Respiration of Plants as distinguished from their Nutrition," is open to students or graduates of five years' standing. Value, proceeds of sum of £500 accumulated for three years. Essays to be given in by November 2, 1874. The Goodsir Memorial Prize is shortly to be founded in commemoration of the late Professor Goodsir, and further information concerning it will be found in the Calendar. The Medical Faculty Prizes: Gold medals are given on the day of graduation to Doctors of Medicine whose theses are deemed worthy of that honour.

*Lectureship.*—The Swiney Lectureship on Geology, value £144, tenable for five years, is open to Doctors of Medicine of the University of Edinburgh. It is in the patronage of the Trustees of the British Museum.

## SCHOOL OF MEDICINE, EDINBURGH.

The Practical Anatomy Rooms and Chemical Laboratories open on October 1. The inaugural address will be delivered by Dr. Stephenson, on Monday, November 2, at eleven o'clock. Lectures commence on Tuesday, November 3.

*Winter Session*, 1874-75.—Materia Medica and Therapeutics, Dr. Francis W. Moinet; Surgery, Dr. P. H. Watson, Dr. Joseph Bell, Dr. Chiene, and Dr. John Duncan; Chemistry (lectures Practical Chemistry and Analytical Chemistry), Dr. Stevenson Macadam; Midwifery and Diseases of Women and Children, Dr. Matthews Duncan; Physiology, Dr. Bell Pettigrew (Royal Infirmary); Clinical Medicine (Royal Infirmary), Drs. Rutherford Haldane, George W. Balfour, and Grainger Stewart, and Dr. Matthews Duncan (for Diseases of Women); Clinical Surgery (Royal Infirmary), Dr. P. H. Watson and Mr. Annandale; Anatomy (lectures, Anatomical Demonstrations, and Practical Anatomy), Dr. P. D. Handyside; Medical Jurisprudence and Public Health, Dr. Littlejohn; Practice of Physic, Dr. Rutherford Haldane, Dr. Claud Muirhead, and Dr. Grainger Stewart; General Pathology, Dr. John Wyllie; Vaccination, Dr. Husband; State Medicine and Hygiene, Dr. Andrew Smart.

*Summer Session*, 1875.—Classes open on Monday, May 3.—Materia Medica and Therapeutics, Dr. Francis W. Moinet and Dr. William Craig; Midwifery and Diseases of Women and Children, Dr. Keiller and Dr. Angus Macdonald; Medical Jurisprudence and Public Health, Dr. Littlejohn; Anatomy (Practical Anatomy, Anatomical Demonstrations), Dr. P. D. Handyside; Chemistry (Practical Chemistry, Analytical Chemistry), Dr. Stevenson Macadam (Royal Infirmary); Clinical Medicine (Royal Infirmary), Drs. Rutherford Haldane, G. W. Balfour, and Grainger Stewart, and Dr. Matthews Duncan (for Diseases of Women); Clinical Surgery (Royal Infirmary), Dr. P. H. Watson and Mr. Annandale; Vaccination, Dr. Husband; Diseases of the Eye (with practical instruction in the use of the ophthalmoscope), Dr. Argyll Robertson; Diseases of Children, Dr. Stephenson; Practical Physiology, Dr. Bell Pettigrew; Insanity, Dr. J. Batty Tuke; Surgical Appliances and Operative Surgery, Dr. Joseph Bell; Surgical Anatomy and Operative Surgery, Dr. Chiene; Practical Surgery, Dr. John Duncan; State Medicine and Hygiene, Dr. Andrew Smart.

*Fees.*—For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh the perpetual fee is £2 4s. Second course of Midwifery, £1 3s. Practical Anatomy (six months' course), £3 3s. Anatomical Demonstrations, £2 2s.; with Practical Anatomy, £1 1s.; perpetual, £4 4s. Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months, or £10 for the session of six months. Vaccination, £1 1s. State Medicine and Hygiene, £2 2s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy (including Anatomical Demonstrations, Operative Surgery, Diseases of the Eye), Insanity, and State Medicine and Hygiene, each £2 2s.

The minimum cost of the education in this School of Medicine for the double qualification of Physician and Surgeon from the Royal College of Physicians and Surgeons, including the fees for the joint examination, is £90 4s., which is payable by yearly instalments during the period of study; whilst the minimum cost for the single qualification of either Physician or Surgeon, including the fee for examination, is £80.

## ROYAL INFIRMARY, EDINBURGH.

In this Hospital a portion of the beds is set apart for clinical instruction by the Professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the Ordinary Physicians and Surgeons. Special instruction is given on Diseases of Women, Physical Diagnosis, etc., and on Diseases of the Eye. Separate wards are devoted to fever, venereal diseases, diseases of women, diseases of the eye; also to cases of incidental delirium or insanity. Professors of Clinical Medicine, Dr. Laycock, Dr. Maclagan, Dr. Sanders. Extra Physicians and Lecturers on Diseases peculiar to Women, Dr. J. Matthews Duncan, Dr. Alex. R. Simpson. Ordinary Physicians and Lecturers on Clinical Medicine, Dr. Rutherford Haldane, Dr. Geo. W. Balfour, Dr. T. Grainger Stewart. Assistant-Physicians, Dr. Claud Muirhead, Dr. David J. Brakenridge. Consulting Surgeons, Dr. Dunsmure, Dr. J. D.

Gillespie. Professor of Surgery, Mr. Spence. Ordinary Acting Surgeons, Dr. P. H. Watson, Mr. Thos. Annandale (Lecturers on Clinical Surgery), Dr. Joseph Bell. Professor of Clinical Surgery, Mr. Lister. Ophthalmic Surgeons, Mr. Walker, Dr. D. A. Robertson. Extra Surgeon for treatment of Ovarian Diseases, Dr. Thomas Keith. Assistant-Surgeons, Dr. John Duncan, Dr. John Chiene. Dental Surgeon, Dr. John Smith. Pathologist, Dr. James B. Pettigrew. Hospital Tickets.—Perpetual, in one payment, £10; annual, £5 5s.; half-yearly, £3 3s.; quarterly, £1 11s. 6d. Separate payments for two years entitle the student to a perpetual ticket. *Appointments.*—No fees are payable for any medical or surgical appointments in this Hospital. The following appointments are open to students:—1. Resident Physicians and Surgeons. 2. Non-Resident Clinical Clerks are appointed by the Physicians and Surgeons. 3. Dresserships. Each Surgeon appoints from four to nine Dressers. 4. Assistants in the Pathological Department are appointed by the Pathologist.

## UNIVERSITY OF ABERDEEN.—FACULTY OF MEDICINE.

Chancellor: His Grace the Duke of Richmond. Vice-Chancellor and Principal: The Very Rev. P. C. Campbell, D.D. Lord Rector: T. H. Huxley, LL.D., F.R.S.

*Winter Session, commencing on Wednesday, October* 28.—Anatomy, Professor Struthers, M.D., 11 a.m., £3 3s. Practical Anatomy and Demonstrations, Professor Struthers and Demonstrator, 9 to 4, and 9 a.m., £2 2s. Chemistry, Professor Brazier, 3 p.m., £3 3s. Institutes of Medicine, Professor Ogilvie, M.D., 4 p.m. £3 3s. Surgery, Professor Pirrie, C.M., F.R.S.E., 10 a.m., £3 3s. Practice of Medicine, Professor Macrobin, M.D., 3 p.m., £3 3s. Midwifery and Discases of Women and Children, Professor Inglis, M.D., 2 p.m., £3 3s. Zoology, with Comparative Anatomy, Professor Nicol, F.G.S., 2 p.m., £3 3s. Medical Logic and Medical Jurisprudence, Professor Ogston, M.D., 9 a.m., £3 3s.

*Summer Session, commencing on the first Monday of May.*—Botany, Professor Dickie, M.D., 9 a.m., £3 3s. Materia Medica (100 lectures), Professor Harvey, M.D., 3 and 4 p.m., £3 3s. Practical Pharmacy, Professor Harvey and Assistant, £2 2s. Practical Anatomy and Demonstrations, Professor Struthers and Demonstrator, 9 to 4, and 2 p.m., £2 2s. Practical Chemistry, Professor Brazier, 10 a.m., £3 3s. Zoology with Comparative Anatomy, Professor Nicol, 11 a.m., £3 3s.

The Anatomical Course in summer includes instruction in General Anatomy and in the use of the microscope; and instruction in Osteology for beginners.

Matriculation fee (including all dues) for the winter and summer sessions, £1. For the summer session alone, 10s.

Pathological Anatomy, Dr. Rodger, £2 2s. Practical Ophthalmology (in summer), Dr. A. D. Davidson. Dental Surgery (in summer), Mr. Williamson.

Royal Infirmary: Daily at Noon. Physicians—Drs. Smith-Shand, Beveridge, and A. Fraser. Surgeons—Drs. Pirrie, Kerr, and Ogston. Junior Surgeon—Dr. Will. Ophthalmic Surgeon—Dr. A. D. Davidson. Dental Surgeon—Mr. Williamson. Pathologist—Dr. Rodger. Perpetual fee to Hospital Practice, £6; or, first year, £3 10s.; second year, £3. Clinical Medicine, Drs. Smith-Shand, Beveridge, and A. Fraser, £3 3s. Clinical Surgery, Drs. Pirrie, Kerr, and Ogston, £3 3s.

General Dispensary and Lying-in and Vaccine Institution: Daily. Eye Institution: Daily. Practical Midwifery, under the superintendence of Dr. Inglis.

Royal Lunatic Asylum: Physician, Dr. Jamieson. Clinical Instruction is given for three months in the year.

The regulations relative to the registration of students of Medicine, and the granting of degrees in Medicine and Surgery, may be had of Dr. Macrobin, Dean of the Faculty of Medicine.

Full information regarding the classes and degrees in the Faculties of Arts, Law, and Divinity, and in regard to Bursaries and Scholarships, will be found in the University Calendar, published by Messrs. Wyllie and Son, Union-street, Aberdeen, by post 2s. 2d.

## ABERDEEN ROYAL INFIRMARY.

The Infirmary contains about 300 beds. Consulting Physician: Dr. A. Harvey. Physicians: J. W. F. Smith, R. Beveridge, Angus Fraser. Surgeons: Messrs. W. Pirrie, D. Kerr, A. Ogston, and J. O. Will. Ophthalmic Surgeon: Dr. Alex. D. Davidson. Pathologist: Dr. James Rodger. Dental Surgeon: Mr. Williamson. Resident Superintendent and Apothecary: Dr. R. Rattray. Resident Assistant-Physician: Mr. Albert Westland. Resident Assistant-Surgeon: Mr. A. M. Macaldowie. Pathologist and Curator of Museum: Dr. J. Rodger. Treasurer and Secretary: Mr. W. Carnie.

## UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

The classes open for the winter session on Tuesday, October 27, 1874, when an introductory lecture will be given by Professor Simpson, M.D.

Chemistry, Practical Chemistry, and Chemical Laboratory, Mr. Ferguson, £3 3s. Practice of Physic, Dr. Gairdner, £3 3s. Anatomy, Anatomical Demonstrations, and Practical Anatomy, Dr. Allen Thomson and Demonstrator, £6 6s. Materia Medica, Dr. Cowan, £3 3s. Forensic Medicine, Dr. P. A. Simpson, £3 3s. Surgery, Dr. Macleod, £3 3s. Midwifery, Dr. Leishman, £3 3s. Institutes of Medicine, Dr. A. Buchanan, £3 3s. Pathology, Dr. J. Coats, £3 3s. Clinical Medicine, Dr. McCall Anderson. Clinical Surgery, Dr. G. Buchanan.

Further information may be obtained from the Registrar of the University.

## ANDERSON'S UNIVERSITY, GLASGOW.

Anatomy, Professor Alexander M. Buchanan, M.D. Institutes of Medicine (Physiology), Professor E. Watson, M.D. Surgery, Professor Dunlop, M.D. Materia Medica, Professor Morton, M.D. Practice of Medicine, Professor Wood Smith, M.D. Midwifery (in summer), Professor J. G. Wilson, M.D. Medical Jurisprudence (in summer), Professor A. Lindsay, M.D. Ophthalmic Medicine and Surgery, Dr. Wolfe.

*Class Fees.*—For each of the above courses of lectures, first session, £2 2s.; second session, £1 1s.; afterwards free. Anatomy Class Fees: For both courses (lectures and demonstrations on Practical Anatomy), first session, £4 4s.; second session, £4 4s.

The fees for all the lectures in the Medical School required of candidates for the diplomas of Physician and Surgeon amount to £30.

*Diploma in Medicine and Surgery.*—Gentlemen who have studied in this School are eligible for examination before any of the Royal Colleges, and in Glasgow they may obtain the diplomas of Physician and Surgeon or General Practitioner, which entitles to registration under the Medical Act, with the right to practise Medicine and Surgery in any part of the kingdom.

A syllabus, with full information, may be obtained by applying to Mr. Arthur Forbes, 146, Buchanan-street, Glasgow, Clerk to the Medical School.

## GLASGOW ROYAL INFIRMARY.

The winter session commences on November 1, 1874. Hour of visit and of lectures at 9 a.m. Physicians, Drs. McCall Anderson, Scott Orr, Gairdner, and Perry. Surgeons, Drs. Morton, Watson, Dewar, Macleod, and Buchanan. Pathologist, Dr. Joseph Coats.

Beds, 580. Attendance at Dispensary, 2 p.m.

The valuable Pathological Museum is open to all students who desire to examine the preparations.

Five Physicians' and five Surgeons' Assistants perform the duties of House-Physicians and House-Surgeons. These offices, held for one year, are open to students who have completed their fourth year of study. They are lodged and boarded in the Hospital for £25 per annum. Dressers to the surgical wards and Clerks to the Dispensary are appointed without fee.

Fees admitting to the medical and surgical practice of the Hospital and Dispensary:—For the first year, £3 3s.; second year, £3 3s.; third and perpetual, £1 1s.; for six months' attendance, £2 2s.; three months', £1 11s. 6d. Practical Pharmacy, six months, £3 3s.

Fees for clinical lectures, on Medicine, £3 3s.; on Surgery, £3 3s.

Medical Superintendent, Dr. N. Thomas. Secretary, Mr. H. Lamond, 64, West Regent-street.

# SCHOOLS AND HOSPITALS IN IRELAND.

## UNIVERSITY OF DUBLIN.

School of Physic.—Regius Professor of Physic, William Stokes, M.D., D.C.L., F.R.S.; Regius Professor of Surgery, Robert Adams, M.D., Ch.M.; University Professor of Anatomy

and Surgery, Benjamin G. M'Dowel, M.D., Ch.M.; University Professor of Chemistry, James Apjohn, M.D., F.R.S.; University Professor of Botany, Edward Perceval Wright, M.D.; Professor of Surgery in Trinity College, Robert W. Smith, M.D., Ch.M.; University Anatomist, Edward H. Bennett, M.D., Ch.M.; Professor of Comparative Anatomy and Zoology, Alexander Macalister, M.B.; Erasmus Smith's Professor of Natural Philosophy, Rev. John Leslie, M.A.; University Lecturer in Operative Surgery, Richard G. Butcher, M.D.; University Examiner in Ophthalmic Surgery, Henry Wilson, F.R.C.S.I.; King's Professor of Institutes of Medicine, Robert Law, M.D.; King's Professor of Practice of Medicine, William Moore, M.D.; King's Professor of Materia Medica and Pharmacy, Aquilla Smith, M.D.; King's Professor of Midwifery, Edward B. Sinclair, M.D.; Professor of Medical Jurisprudence, Robert Travers, M.B.

*Winter Session*, 1874-75.—The Winter Session commences on October 1, and terminates on March 31. Lectures will commence on November 1. The Dissecting-room will be opened on October 1.

*Lectures.*—Practical Anatomy: Dr. Bennett, at twelve o'clock on Tuesdays, Thursdays, and Saturdays. Surgery: Dr. R. W. Smith, at one o'clock on Mondays, Wednesdays, and Fridays. Anatomy: Dr. M'Dowel, at one o'clock on Tuesdays, Thursdays, and Saturdays. Heat, Electricity, and Magnetism: Mr. Leslie, at two o'clock on Mondays, Wednesdays, and Fridays, during Term. Chemistry: Dr. Apjohn, at two o'clock on Tuesdays, Thursdays, and Saturdays. Practice of Medicine: Dr. Moore, at three o'clock on Mondays, Wednesdays, and Fridays. Midwifery: Dr. Sinclair, at four o'clock on Mondays, Wednesdays, and Fridays. N.B.—The courses consist of fifty-six lectures each. Attendance on at least forty-two lectures in each course is required. Christmas vacation commences on December 21, and terminates on January 4.

*Medical Scholarships.*—Two medical scholars are elected annually, by the Board of Trinity College, at an examination held at the end of June—subject to conditions stated in the College Calendar. Each Scholarship is worth £20 per annum, and is tenable for two years.

*Medical Exhibitions.*—The Professors of the School of Physic give three Exhibitions annually, amounting altogether in value to £40—subject to conditions prescribed by the Professors themselves.

*Matriculation.*—No student can be permitted to attend any of the Lectures delivered in the School of Physic, or to attend Dissections, who has not complied with the provisions of the School of Physic Act (40 Geo. III. ch. 84), as to Matriculation. The Medical Registrar will attend at three o'clock each day to matriculate students.

Sir Patrick Dun's Hospital.—Consulting Physician, William Stokes, M.D., D.C.L., F.R.S.; Consulting Surgeon, Robert Adams, M.D., Ch.M.; Clinical Physicians, Robert Law, M.D., William Moore, M.D., Aquilla Smith, M.D.; Midwifery Physician, Edward B. Sinclair, M.D.; Clinical Surgeons, Benjamin G. M'Dowel, M.D., Ch.M., Robert W. Smith, M.D., Ch.M., Edward H. Bennett, M.D., Ch.M.; University Lecturer in Operative Surgery, Richard G. Butcher, M.D.

The Hospital is visited daily before twelve o'clock, by each of the Physicians and Surgeons on duty. The Physician on duty will visit the Wards, with his class, at 9 a.m., on Mondays, Wednesdays, and Fridays. The Surgeon on duty will visit the wards, with his class, at 9 a.m., on Tuesdays, Thursdays, and Saturdays. The Hospital Dispensary is open from nine o'clock to eleven o'clock daily (except Sundays), for the relief of patients and for the instruction of students.

*Hospital Attendance.*—The payment of three guineas to the Hospital entitles any student to attend the Clinic of the Hospital for twelve months, and to attend the lectures delivered by Dr. R. G. Butcher, University Lecturer in Operative Surgery, at 10 a.m. on Thursdays. Students who have taken out the degrees of Bachelor in Medicine and Master in Surgery in Trinity College, are entitled to attend the Hospital as perpetual free pupils.

*Clinical Lectures.*—Clinical lectures are delivered in the Hospital Theatre at ten o'clock on the following days:—Mondays, the Clinical Physician on duty; Tuesdays, the Clinical Surgeon on duty. In addition to the Hospital fee, the payment of a fee of six guineas is required for the privilege of attending these lectures. Total fees for hospital and lectures for twelve months, nine guineas. N.B.—Dr. Bennett will receive both hospital and lecture fees.

*Practical Midwifery.*—Students desirous of entering for six months' instruction in Practical Midwifery are required to pay a maternity fee of three guineas each to the Registrar of the Hospital. Students of Trinity College are not liable to any other payment for instruction in Practical Midwifery. Other students are required to pay three guineas each to the King's Professor for six months' practical instruction, in addition to the hospital maternity fee. Students who have paid the hospital maternity fee are entitled to attend the Demonstrations in Obstetric Surgery, given by the King's Professor, at 10 a.m. on Fridays. Total fees for College Students, three guineas; total fees for Externs, six guineas.

*Army Midwives.*—The Secretary of State for War has authorised the formation of a Class of Midwives for service in the Army, in connexion with Sir P. Dun's Maternity. Each Army Midwife will receive a diploma from the Governors of the Hospital, on her completion of six months' practical instruction, under the superintendence of the King's Professor of Midwifery. The Army Nurses are required to attend the lectures delivered in the Hospital by the King's Professor. The hospital students are not permitted to attend these lectures.

*Clinical Medals.*—The Governors of the Hospital award a Silver Clinical Medal in Medicine to the student who shall pass the best examination on the medical cases treated in the Hospital during the year; and a Silver Clinical Medal in Surgery to the student who shall pass the best examination on the surgical cases treated in the Hospital during the year. The written part of the examination shall consist of five cases recorded by each candidate, which must be handed to the Registrar of the Hospital before June 1, 1875.

*Resident Pupils.*—Candidates for the office of Resident Pupil are requested to forward their application to the Board of Governors, through Dr. E. H. Bennett, before May 1 and November 1.

## ST. VINCENT'S HOSPITAL, DUBLIN.

The winter session will commence on Thursday, October 1, 1874. Physicians: Dr. Francis J. B. Quinlan and Dr. Robert Cryan. Surgeons: Dr. Edward D. Mapother and Mr. William H. O'Leary. Surgeon-Dentist: Mr. William J. Doherty. Apothecary: Mr. Boland.

Further particulars may be learned on application to the Secretary, or at the Hospital during the hours of attendance.

## THE QUEEN'S UNIVERSITY IN IRELAND.—QUEEN'S COLLEGE, BELFAST, FACULTY OF MEDICINE.

The lectures will commence on Tuesday, November 3. Anatomy and Physiology, Dr. P. Redfern. Chemistry, Dr. Thomas Andrews. Practice of Medicine, Dr. James Cuming. Practice of Surgery, Dr. A. Gordon. Materia Medica, Dr. J. S. Reid. Midwifery, Dr. R. F. Dill. Medical Jurisprudence, Dr. J. F. Hodges. Natural Philosophy, Dr. Everitt. Zoology and Botany, Dr. R. O. Cunningham. The demonstrations in Anatomy are delivered by Dr. Charles. The lectures in Midwifery and in Medical Jurisprudence, and the courses of Botany and Practical Chemistry, and a second course of Experimental Physics, will commence in May.

*Fees.*—Anatomy and Physiology—First course, £3; each subsequent course, £2. Anatomical Demonstrations and Practical Anatomy—each course, £3. Practical Chemistry, £3. Other medical lectures—first course, £2; each subsequent course, £1.

Two medical scholarships are awarded to the students of each year of the medical course. The examinations commence on October 20.

*Belfast General Hospital.*—Clinical Instruction—Perpetual Fee, payable in one sum of £10 10s., or in two instalments of £5 5s. each on entering for the first and second years. Hospital fee, 10s. 6d. each session. Four resident pupils are appointed each session.

*Belfast Lying-in Hospital.*—Fee for the session, £3 3s.

## QUEEN'S COLLEGE, CORK, FACULTY OF MEDICINE.—Session 1874-75.

Anatomy, Physiology, and Practical Anatomy, Dr. J. H. Corbett. Practice of Medicine, Dr. D. C. O'Connor. Practice of Surgery, Dr. W. Tanner. Materia Medica, Dr. P. O'Leary. Midwifery, Dr. J. Harvey. Natural Philosophy, Mr. John England. Chemistry and Practical Chemistry, Dr. M. Simpson. Zoology and Botany, Dr. J. R. Greene. Clinical Medicine and

Clinical Surgery, at the North and South Infirmaries, by the Physicians and Surgeons of these institutions. Clinical Midwifery, at the Lying-in Hospital. The medical session will be opened on Monday, November 2, 1874, and the lectures will commence on the same day.

Eight scholarships, value £25 each, are awarded to students of Medicine.

For further information apply to Mr. Robert John Kenny, Registrar.

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### QUEEN'S COLLEGE, GALWAY, FACULTY OF MEDICINE.—Session 1874-75.

Anatomy and Physiology, and Practical Anatomy, Dr. Cleland. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Brown. Materia Medica, J. P. Pye, Esq., M.D. Medical Jurisprudence, Dr. J. P. Pye. Midwifery and Diseases of Women and Children, Dr. R. Doherty. Chemistry, Dr. T. H. Rowney. Natural Philosophy, Dr. A. H. Curtis. Botany and Zoology, Dr. A. G. Melville. Logic and Mental Philosophy, Dr. T. W. Moffett. The County Galway Infirmary, Town, and Fever Hospitals are in the immediate vicinity of the Queen's College.

Eight scholarships of the value of £25 each, and exhibitions varying in value from £12 to £16, are appropriated to students pursuing the course for the degree of M.D.

*Fees.*—Anatomy and Physiology, £3 first session; afterwards £2. Practical Anatomy, £3; Practical Chemistry, £3; Operative Surgery, £3; other classes, £1 for each course extending over one term only—£2 for each course extending over more than one term—and £1 for each re-attendance on the same. The College session is divided into three terms. The first term commences on October 20, 1874, and ends on December 19, 1874.

For further information, application may be made to Professor Moffett, Registrar.

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### ROYAL COLLEGE OF SURGEONS IN IRELAND.—SCHOOL OF SURGERY.—Session 1874-75.

The public lectures and the usual winter course will commence on October 29. Anatomy and Physiology, Dr. Mapother. Descriptive Anatomy, Dr. Bevan and Mr. Morgan. Surgery, Dr. Stokes and Dr. J. S. Hughes. Practice of Medicine, Dr. Little. Chemistry, Dr. Emerson Reynolds. Materia Medica, Dr. Macnamara. Midwifery, Dr. Sawyer. Medical Jurisprudence, Dr. Davy. Practical Chemistry, Dr. Emerson Reynolds. Botany, Dr. Minchin. Ophthalmic and Aural Surgery, Mr. Henry Wilson. Hygiene, Dr. Cameron. Dissections (under the direction of the Professors of Anatomy and the Demonstrators), Drs. Croly, Stoney, Stoker, Ormsby, Kilgarriff, Wheeler, and A. Barker, commence on October 1.

The summer session commences in April and terminates in July, including Materia Medica, Medical Jurisprudence, Botany, Practical Chemistry, Midwifery, Ophthalmic and Aural Surgery, and Hygiene.

The fee for each of the above courses is £3 3s., except Comparative Anatomy and Hygiene, which are free.

For further information, application to be made to the Registrar, John Brennen, Esq., at the College.

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### DR. STEEVENS' HOSPITAL, DUBLIN,

Contains 250 beds. Systematic courses of lectures are delivered during the winter and summer sessions on all subjects required by the Colleges, Halls, and the Public Service. There is accommodation in the Hospital for two medical and six surgical resident pupils as Dressers. Fee, £21. Senior middle and junior exhibitions will be awarded at the end of the session to those whose answering exhibits general proficiency in every branch of their professional studies. Two Midwifery Assistants are each year (month of November) selected by competitive examination, salary £30 per annum. The dissecting-rooms will be opened on the first Monday in October for Practical Anatomy. The sessional courses of lectures will commence on the first Monday in November. Fees—Hospital, £7 7s.; Practical Anatomy, £4 4s.; lectures, £3 3s. each course; perpetual, to all educational courses required by Colleges, Halls, and Public Service, 78 guineas, payable in two instalments.

Further particulars on application to the Resident Surgeon, at the Hospital; or to E. Hamilton, M.D., Secretary, 120, Stephen's-green.

### THE ADELAIDE HOSPITAL, PETER-STREET, DUBLIN.

Physicians: Dr. Henry H. Head and Dr. James Little. Surgeons: Dr. Albert J. Walsh, Dr. John K. Barton, and Mr. Benjamin Wills Richardson. Obstetric Physician: Dr. Lombe Atthill. Ophthalmic Surgeon: H. Rosborough Swanzy, M.B. Assistant-Physician, Dr. Walter G. Smith. Assistant-Surgeon: Montgomery A. Ward, M.B., M.Ch.

The central position of this Hospital renders it peculiarly convenient to gentlemen attending lectures at the University, College of Surgeons, or Ledwich School. Special instruction is afforded to students on the subjects of Diseases of Women, Diseases of the Skin and of the Eye. Two resident pupils are selected half-yearly. Prize examinations are held at the termination of the session.

Further particulars can be obtained from Dr. Atthill, 11, Upper Merrion-street, or any other member of the medical staff.

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### LEDWICH SCHOOL OF ANATOMY, MEDICINE, AND SURGERY, PETER-STREET, DUBLIN.

Anatomy, Physiology, and Pathology, etc., Mr. E. Ledwich, Mr. T. P. Mason, and Mr. J. E. Kelly. Theory and Practice of Surgery, Messrs. Wharton and Barton. Surgical and Descriptive Anatomy, Demonstrations, and Dissections, Messrs. Mason, Ledwich, Glanville, Robinson, and Porter. Theory and Practice of Medicine, Dr. Foot. Midwifery and Diseases of Women and Children, Dr. J. Ringland. Materia Medica and Therapeutics, Dr. M'Dowel. Forensic Medicine and Hygiene, Dr. R. Travers. Theory of Chemistry, Practical Chemistry, and Natural Philosophy, Dr. Cameron. Botany, Dr. Maunsell.

A course of operations to be performed by the students, under the superintendence of the lecturers (subjects etc., included), £5 5s.

Certificates of attendance on these lectures are received by Trinity College, Dublin, and all the Examining Boards.

The fee for each of the above courses will be £3 3s.

Further information may be obtained from any of the lecturers, or from Edward Ledwich, Secretary, 7, Harcourt-street, Dublin.

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### CITY OF DUBLIN HOSPITAL.

Physicians: Drs. J. Hawtrey Benson and John M. Purser. Surgeons: Messrs. Jolliffe Tufnell, President, R.C.S.; H. G. Croly, William Arthur Barker, and William I. Wheeler, M.D. Ophthalmic and Aural Surgeon, Dr. Loftie Stoney. Consulting Physicians: Professor Apjohn, Charles Benson, M.D. Consulting Surgeon: William Hargrave, F.R.C.S.I. Consulting Ophthalmic Surgeon: Arthur Jacob, F.R.C.S.I., and M.D. (Hon. Causâ) Dub. Clinical lectures will be delivered by the Physicians and Surgeons, and special courses on Diseases of the Eye and Ear will be given by Dr. Stoney. The certificates of attendance are received as qualifications by all the Colleges, Halls, and Boards. For further particulars, apply to Dr. Stoker, 43, Harcourt-street.

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## HOSPITALS, &c., FOR SPECIAL INSTRUCTION.

University of Durham College of Physical Science, Newcastle-on-Tyne.—The College has taken over the laboratories, lecture-room, &c., of the College of Medicine, and provides the full courses in Chemistry required by the licensing boards. It is contemplated to establish a chair of Natural History in connexion with the College as soon as funds will permit.

The Wolverhampton and Staffordshire General Hospital—(A Clinical and Training Institution for Gentlemen intended for the Medical Profession).—Medical Officers—Dr. Millington, Dr. Tothcrick, Mr. Vincent Jackson, Mr. J. O'B. Kough, Mr. C. A. Newnham. House-Surgeon—Mr. Ravenhill. Physicians' Assistant—Dr. Nankivell. This Hospital contains 210 beds; large Male and Female Accident Wards; Wards for cases of Burn; General Medical and Surgical Wards; a Ward for Diseases peculiar to Women; a Children's Ward, and a detached Fever Wing; also a commodious semi-detached Out-patient Department. To the General Wards a Clinical-room is attached, in which the analysis and microscopic inspection of the Urine is conducted, also Ophthalmoscopic and Laryngoscopic examinations. Instruction is given in Chemistry, in Natural Philosophy, and in the Anatomy of the Dry Bones, Ligaments, Viscera, and Topographical Anatomy. The course of Practical Surgery includes the use of Surgical Apparatus, the performance of Surgical Operations, and the demonstration of Morbid Surgical Anatomy. In the Hospital the pupils are required to attend daily in the Casualty-room, in the Out-patient Department, and in the Wards, the instruction afforded being of a practical nature, including Bandaging, the Application of Splints, Tooth-drawing, and every kind of elementary professional

detail, likewise how to observe aud examine patients. The art of Dispensing, the preparation of Drugs, and of Pharmaceutical Compounds, can also be learnt in the Hospital Dispensary and Laboratory. Operations are performed every Thursday at eleven o'clock, and practitioners are admitted. The practice of the Hospital is recognised by all the examining boards. Fees for Hospital Practice—For one year, Ten Guineas; perpetual, Twenty Guineas. Some members of the Honorary Staff receive resident pupils. For further particulars apply to Mr. Vincent Jackson (Honorary Secretary to the Medical Committee), 46, Darlington-street, Wolverhampton.

At Downing College, Cambridge, every alternate year an election to a Fellowship takes place, the holder of which must be engaged in the active pursuit of the studies of Law or Medicine. These Fellowships are of the annual value of £200, and are tenable for twelve years. They are not, if practicable, vacated by marriage, and the Fellows are not required to reside. There is now one vacant Fellowship. Foundatiou Scholarships of £50 per annum (in some cases with rooms and commons) are offered annually for distinetion in Natural Science, tenable until the B.A. degree, and in case of special merit for three years longer. Miuor Scholarships of £40 or more per annum, tenable for two years, are offered each year for competition before entrance, and one or more of these is awarded for proficiency in Natural Seience.

Great Northern Hospital, Caledonian-road. — Physicians — Drs. Lcared, Hardinge, Cholmeley, and Crucknell. Obstetrie Physician—Dr. Gustavus C. P. Murray. Diseases of the Eye—Mr. B. J. Vernon. Surgeons—Messrs. Gay, W. Adams, T. Carr Jackson, and W. Spencer Watson. Aural Surgeon—Mr. Harvey. Dental Surgeon—Mr. C. J. Fox. Chloroformist—Mr. G. Eastes. House-Surgeon—Mr. A. Young. Junior Resident Medical Officer—Mr. Simpson. Dispenser—Mr. W. Bardsley.

London School of Dental Surgery and Dental Hospital of London, 40, Leicester-square, W.C.—The winter session will commence on Wednesday, October 1. Mechanical Dentistry, Mr. J. S. Turner; Metallurgy, Mr. G. H. Makins; Dental Surgery and Pathology, Mr. S. H. Cartwright; Dental Anatomy and Physiology, Mr. C. S. Tomes. Dental Surgeons to the Hospital—Messrs. Fox, Underwood, Gregson, Coleman, H. Harding, and Hill. Assistant Dental Surgeons—Messrs. Moon, Medwin, C. S. Tomes, Lane, Bartlett, and S. H. Cartwright. Deutal House-Surgeon—Mr. David Hepburn. Treasurer—Mr. Cartwright. Dean—Mr. T. A. Rogers. On every day during the Lecture Session the surgeons of the day will, if practieable, give demonstrations, especially intended for the junior pupils, of the operations performed iu Dental Surgery.

The Hospital for Sick Children, 48 and 49, Great Ormond-street, W.C., and Cromwell House, Highgate.—Physicians—Dr. West and Dr. Dickinson. Assistant-Physicians—Dr. Samuel Gee, Dr. W. B. Cheadle, Dr. O. Sturges, Dr. A. L. Galabin, and Dr. R. J. Lee. Surgeon—Mr. Thomas Smith. Assistant-Surgeons—Mr. Howard Marsh, Mr. J. W. Haward. Surgeon-Dentist—Mr. Thomas Edgelow. 117 beds. In-patients, 1873, 914. Out-patients attending, 14,212. The practice of the Hospital, in both in- and out-patient departments, is open at nine every morning. Fee for six months' attendance, £3 3s.; perpetual, £5 5s. Samuel Whitford, Secretary.

Royal Infirmary for Children and Women, Waterloo-bridge-road. —Instituted 1810.—Consulting Physician—(Vacant). Consulting Surgeon —Mr. J. Cooper Forster. Physicians—G. V. Poore, M.D., M.R.C.P., Wm. Park, M.D., George Roper, M.D., M.R.C.P., John Williams, M.D. Surgeon—Edwin Canton, F.R.C.S. Surgeon-Dentist—Mr. Thomas Roberts. Resideut Medieal Officer—John Leonard, M.R.C.S. Secretary—Mr. William Champion. Advanced students in Medicine, and such practitiouers as may desire it, are permitted to attend the practice of this Hospital gratis. If a certificate signifying such attendanee be required, the sum of five guineas must be paid to the Physicians and Surgeons in ordinary conjointly.

Victoria Hospital for Children, Gough House, Queen's-road, Chelsea.—This Hospital contains fifty beds, and has a large Out-patient Department. Physicians—Dr. Evans and Dr. Cavafy. Assistant-Physicians—Dr. Jones, Dr. Grigg, and Dr. Laking. Surgeon—Mr. Cowell. Assistant-Surgeons—Mr. F. Churchill and Mr. Fisher. Dental-Surgeon—Mr. Risdon. The practice of the Hospital is open daily at twelve. Fees—for six months, £3 3s.; perpetual, £5 5s. House-Surgeon aud Pathologist—Mr. Brigham. Secretary—Captain Scoones.

The Belgrave Hospital for Children, 1, Cumberland-street, Eccleston-square, S.W.—20 beds. President—The Most Noble the Marquis of Westminster. Honorary Medical Staff: Physicians—Dr. Anstie, Dr. Farquharson; Surgeons—Bernard E. Brodhurst, Esq., Thos. P. Pick, Esq.; House-Surgeon—Malcolm MeHardy, Esq. New patients last year—In, 397; out, 890. Pupils will be admitted to the practice of the Hospital upon producing a certificate of being duly registered as medieal students, and on such other conditions as the Committee may from time to time direct.

Evelina Hospital for Sick Children, Southwark-bridge-road.— Founded and endowed in 1869 by Baron Ferdinand de Rothschild. 100 beds. Consulting Physieian—Dr. Arthur Farre. Consulting Surgeon—Mr. Prescott Hewett. Physicians—Drs. C. Hilton Fagge, E. Buchanan Baxter, F. Taylor, and T. Crawford Hayes. Surgeons—Messrs. W. Morrant Baker, H. Howse, and R. Clement Lucas. Resident Medical Officer—Douglas W. Giffard. Registrar—Mr. W. E. Paley.

Royal Hospital for Sick Children, Meadowside House, Edinburgh. —Consulting-Physicians—Professor Sir Robert Christison, Bart., Drs. Charles Wilson, Graham Weir, and Matthews Duncan. Consulting-Surgeon—Professor Spence. Pathologist—Professor Sanders. Ordinary Physicians—Drs. Stephenson, Ritchie, Linton, and Dunsmure. Extra Physicians—Drs. James Andrew and James Cumming. Assistant-Physician—Dr. John Y. Pithie. Surgeon-Dentist—Dr. Smith. Ophthalmic Surgeon—Dr. Argyll Robertson. Resident Physician—Dr. W. D'Oyly Grange. Honorary Secretary—Mr. John Henry, 20, St. Andrew-square. Fees: To Hospital, three months, £1 1s.; to Dispensary Department, three months, £1 1s.

Royal Free Hospital, Gray's-inn-road.—Physicans—Dr. O'Conuor, Dr. Cockle, Dr. Rickards. Surgeons—Mr. De Mérie, Mr. Gant, Mr. Hill. There being a wide field for Medieal and Surgical Practice at this Hospital, Students have excellent opportunities for gaining a bedside knowledge of Medicine and Surgery, also for the study of Pathology and Morbid Anatomy, and can prepare for examinations by attending a course of three or six months' Clinical Instruction. Vacancies for Clinical Clerks and Dressers. For particulars apply to any member of the Medical Staff, at the Hospital, daily at 2 p.m.

National Hospital for the Paralysed and Epileptic, 23 and 24, Queen-square, Bloomsbury.—The Hospital contains 74 beds; the County Convalescent Branch, at Finchley, 25 beds. The Physicians attend every Monday, Tuesday, Wednesday, and Friday, at half-past two o'clock. In- and out-patients' electrical-room and general practice at that hour. Physicians—Drs. Ramskill, Radcliffe, Hughlings-Jackson, and Buzzard. Assistant-Physicians—Dr. Charlton Bastian, Dr. Elam, Dr. Maclure, Dr. Gowers. Surgeon—W. Adams, F.R.C.S. Medical Superintendent—Dr. Tibbits. Medieal Registrar—Dr. Newman. Medical practitioners and students will be admitted on showing their cards.

South London School of Chemistry and Pharmacy, 325, Kennington-road, aud Central Publie Laboratory, Kennington-cross, S.E. Director, Dr. Muter. Daily lectures in Classics, Chemistry, Physics, Botany, Materia Medica, and Pharmacy. Laboratory open for Practical Chemistry from ten till five. Special instruction for Medical Officers of Health in Water, Air, Gas, and Food Analysis.

Seamen's Hospital (late *Dreadnought*), Greenwich, S.E.—Visiting Physicians—Drs. Stephen H. Ward and Charles H. Ralfe. Visiting Surgeon —Mr. Richard Rendle. Surgeon—Mr. W. Johnson Smith. House-Physician—Mr. Andrew Duncan. House-Surgeon—Mr. John Glanvile.

Royal London Ophthalmic Hospital, Blomfield-street, Moorfields, E.C.—Founded 1804.—70 beds. Consulting Physician—Dr. F. J. Farre. Consulting Surgeon—Mr. J. Dixon. Surgeons—Messrs. Critchett, Bowman, Wordsworth, Streatfield, J. W. Hulke, G. Lawson, J. Hutchinson, J. Couper, and J. Soelberg Wells, M.D. House-Surgeon—Mr. F. Buller.

Royal Westminster Ophthalmic Hospital, King William-street, Charing-cross.—The Hospital contains nine wards with thirty-six beds, and the patients (10,000 new eases annually) are seen daily at one, and operations performed at two. The following are the days of attendance of the Surgieal Staff:—Monday and Friday, Mr. Power and Mr. Rouse; Tuesday, Thursday, and Saturday, Mr. Hogg; Wednesday and Saturday, Mr. Cowell. The practice of the Hospital is open to students. Fees—for six months, £3 3s.; perpetual, £5 5s. Secretary, Mr. Farrant.

St. Mark's Ophthalmic Hospital and Dispensary for Diseases of the Eye and Ear.—Attending Surgeons—Sir William Wilde, M.D., F.R.C.S., Surgeon-Oculist in Ireland to Her Majesty; Henry Wilson, F.R.C.S., Professor of Ophthalmic and Aural Surgery, R.C.S., Examiner in the University of Dublin; Richard Rainsford, M.B., F.R.C.S., Demonstrator of Anatomy, Ledwich School of Medicine. Instruction is given on the mornings of Mondays, Tuesdays, Thursdays, and Fridays, from eleven to one o'clock, and operations performed on Wednesdays and Saturdays from eleven to one o'clock. Fee for three months' attendance, £3 3s.

Glasgow Eye Infirmary, Berkeley-street.—Physician—Dr. Harry Rainy. Consulting-Surgeon—Dr. George Buchanan. Surgeons—Drs. Thomas Reid and Heetor C. Cameron. Assistant-Surgeons—Drs. Robert Watson, Thomas S. Meighan, and Henry E. Clark. Resident Clerk—Dr. T. W. Whittaker. Secretary—George Black, 88, West Regent-street. Hour of visit, one p.m. Forty beds. Student's fee for six months' attendance, £2 2s.; or for one year's attendance, £3 3s. To those attending, or who have attended, the lectures on the Eye in Glasgow University, £1 1s. for six months; or £1 11s. 6d. for twelve months.

Hospital for Diseases of the Throat, Golden-square, W.—Consulting Physicians—Dr. Billing and Sir W. Jenner, Bart., M.D. Consulting Surgeon—Sir W. Fergusson, Bart. Physicians—Drs. Morell-Mackenzie, Semple, and Prosser James. Surgeon—George Evans, Esq. Assistant-Surgeon—Pugin Thornton, Esq.

Hospital for Diseases of the Skin, 52, Stamford-street, Blackfriars.

Dispensary for Skin Diseases, 63, John-street, Glasgow.—Physician —Dr. McCall Anderson. Assistant-Physician—Dr. Provan. Number of new cases annually about 1400. Practical courses on Diseases of the Skin are held during the summer session; fee for the course £1 1s. James Grahame, Hon. Secretary. This Dispensary is in connexion with the eutaneous wards in the University Hospital, which is at present in eourse of erection.

St. Luke's Hospital for Lunatics, Old-street, E.C.—Physicians—Dr. Henry Monro and Dr. William Wood. Surgeon—Mr. Alfred Willett. Resident Medical Superintendent—Reginald Eager, M.R.C.S., L.A.S., and M.D. Univ. Lond. There are two Resident Clinical Assistants, whose appointments are tenable for six months. The Visiting Physicians aro also allowed by the Committee to take pupils. Patients admitted gratuitously, or on payment according to their circumstances. For information address the Secretary, George Seymour, Esq.

The Hartley Institution, Southampton.—Principal, C. G. Blackader, M.A. Trinity Coll., Cantab. In the department of preliminary medical education, which is recognised by the Royal Colleges of Surgeons and Physicians, students are prepared for the regular curriculum of the medical schools, one winter and two summer sessions thus passed counting towards the four years' professional study required of all eaudidates for a diploma. Students in this department also receive instruction in dressing, taking notes of cases, etc., at the Southampton Royal Infirmary. For further information address the Principal.

Royal Dispensary, Edinburgh. — Consulting Physieian — Professor Sanders. Consulting Surgeon—Professor Spenee. Consulting Physicians-Accoucheur—Dr. Keiller and Dr. J. Matthews Duncan. Medical Officers—Dr. William Stephenson, F.R.C.S.; Dr. Cairns, F.R.C.S.; Dr. Linton, F.R.C.P.; Professor Spenee, F.R.C.S.; Dr. George W. Balfour, F.R.C.P.; Professor Sanders, F.R.C.P.; Dr. W. Husband, F.R.C.S.; Dr. James Andrew, F.R.C.P.; Dr. D. Wilson, F.R.C.S.; Dr. R. P. Ritehie, F.R.C.P.; Dr. F. W. Moinet, F.R.C.P.; Dr. A. J. Sinclair, F.R.C.P. Midwifery Department—Dr. Wilson, Dr. Andrew, Dr. Cairns, and Dr. Stephenson. Vaccination—Dr. Husband. Apothecary—Mr. R. Urquhart. Secretary to Medical Officers—Dr. Andrew.

Norfolk and Norwich Hospital.—120 beds. One year's attendance recognised by Examining Boards.—Fees: For the Physicians' practice, £10 10s.; for the Surgeons' practiee—one year, £20; two years, £30; perpetual, £40. Pupils resident and non-resident. Physicians—Dr. Copeman, Dr. Eade, Dr. Bateman. Honorary Consulting Surgeon—Mr. Nichols. Surgeons—Mr. Firth, Mr. Cadge, Mr. Crosse. Resident Medical Officer—Mr. J. R. Baumgartner. Assistant-Surgeons—Mr. Williams, Dr. Beverley.

## PRIVATE TEACHERS.

Mr. J. Erle Benham, 20, Devereux-court, Temple, E.C. (formerly of King's College, London), has commenced to take his classes, and to give private instruction for the various Preliminary Examinations in Arts of the College of Surgeons.

Dr. Coales, LL.D., M.A., prepares candidates in class or by private lessons for the following examinations:—London University: Preliminary, Scientific, and Matriculation. College of Surgeons: Preliminary, Fellowship, and Membership. Apothecaries' Hall: Preliminary Membership. Resident pupils received.—119, Gower-street, W.C.

Mr. Hanbury, M.A., 24, Old-square, Lincoln's-inn, W.C., reads with his class for the Preliminary Examination in Arts, College of Surgeons, and for the Matriculation Examination of London University. Mr. Hanbury is assisted by efficient lecturers in French and Chemistry. Resident pupils are received in house at Clapham.

Mr. H. M. Hewitt, B.A. Camb. and Lond., double First-classman in Honours, 82, Gower-street, W.C., prepares for the London University examination, First and Second B.A., College of Surgeons, etc.

Mr. Thomas Lyle (of the University of London), Forest House, 89, Forest-road, Dalston, N.E., prepares gentlemen for the Examination in Arts at the Apothecaries' Hall and the College of Surgeons; also for matriculation at the Loudon University. Resident pupils received.

Mr. Murray, B.A., Arkteon House, Wray-crescent, Tollington-park, N., prepares for the Preliminary Examinations at Royal College of Surgeons and Apothecaries' Hall, and the Matriculation at University of Londou.

Mr. J. Pincott, F.R.G.S., Tellham House School, Brixton-hill, S.W., prepares gentlemen for the Preliminary Medical and Law Examinations, and for the Matriculation Examination of the London University.

The Drs. Power continue daily their Lectures and Examinations for Competitive and Pass Examinations at 8, Red Lion-square W.C.

Mr. A. Pridham, 143, Camden-road, N.W., reads with candidates for Preliminary or Matriculation Examinations. A few resident pupils received.

[For fees, etc., see Advertisements.]

## EDUCATIONAL VACCINATING STATIONS.

In order to provide for the granting of those special certificates of proficiency in vaccination which are required to be part of the medical qualification for entering into contracts for the performance of public vaccination, or for acting as deputy to a contractor, the following arrangements are made:—

1. The vaccinating stations enumerated in the subjoined list are open under certain specified conditions, for the purposes of teaching and examination.

2. The public vaccinators officiating at the stations are authorised to give the required certificates of proficiency in vaccination to persons whom they have sufficiently instructed therein; and

3. The public vaccinators, whose names in the subjoined list are printed in italic letters, are also authorised to give such certificates, after satisfactory examination, to persons whom they have not themselves instructed.

London.—Principal Station, Surrey Chapel, Blackfriars-road: *Mr. James Furness Marson*, who attends on Tuesday and Thursday, at 1 p.m. North-west Stations—Marylebone Institution, 15, Lower Seymour-street: Mr. William A. Sumner, on Monday, at 10 a.m.; Albion Hall, Grove-place, Lisson-grove: Mr. William A. Sumner, on Wednesday, at 10 a.m. West Station, 9, St. George's-road, Pimlico, S.W.: Dr. Edward Lowe Webb, on Thursday, at 10 a.m. East Station, Eastern Dispensary, Leman-street: Mr. Charles T. Blackman, on Wednesday, at 11 a.m. North Station, Tottenham-court Chapel, Tottenham-court-road: Mr. William Edwin Grindley Pearse, on Monday and Wednesday, at 1 p.m. South-west Station, 2, Regent-place, Horseferry-road: Mr. William Edwin Grindley Pearse, on Tuesday, at 2 p.m. Strand Station, Charing-cross Hospital: Mr. Robert William Dunn, on Monday, at 10 a.m.

Birmingham.—The School-rooms, 27, Old Meeting-street, on Monday; the rooms occupied by the Working Men's Mutual Improvement Society, in Barr-street, on Tuesday; St. Mark's School-rooms, St. Mark's-street, on Wednesday; and the Islington Assembly-rooms, 42, Broad-street, on Thursday: *Dr. Edmund Robinson*, at 11 o'clock on the days before-mentioned.

Bristol.—The Public Vaccination Station, Peter-street: *Dr. Henry A. P. Robertson*, on Wednesday, at 10 a.m.

Exeter.—Odd Fellows' Hall, Bamfyld-street: *Mr. Charles H. Roper*, on Thursday, at 3 p.m.

Leeds.—Heed-street: *Mr. Frederick Holmes*, on Tuesday, at 2.30 p.m.

Liverpool.—4, Oldham-street: *Mr. Arthur Browne Steele*, on Thursday, at 2 p.m.

Manchester.—72, Rochdale-road: *Mr. Ellis Southern Guest*, on Monday, at 2 p.m.

Newcastle-on-Tyne.—The Central Vaccination Station, 21, Nun-street: *Dr. Thomas C. Nesham*, on Thursday, at 3 p.m.

Sheffield.—The Public Vaccination Station, Townhead-street: *Mr. William Skinner*, on Tuesday, at 3 p.m.

Edinburgh.—The Royal Dispensary: *Dr. William Husband*, on Wednesday and Saturday, at 12.

Glasgow.—The Hall of the Faculty of Physicians and Surgeons: *Dr. Hugh Thomson*, on Monday, at 12. The Royal Infirmary: Dr. Robert Duulop Tannahill, on Monday and Thursday, at 12.

Royal Medical and Chirurgical Society.—The Library was reopened on Thursday, the 10th instant.

COMMUNICATIONS have been received from—

Mr. Cauty, Liverpool; Dr. Edis, London; Mr. A. Forrest, Birmingham; Dr. Norcom, Ralcigh; Mr. Heward, Stamford; Mr. J. Tufnell, Dublin; Mr. Morrant Baker, London; Mr. W. Morton, London; Mr. J. Gorham, Tunbridge; Agonistes; The Registrar-General, Edinburgh; Dr. W. L. White, Sunderland; The Secretary of the Glasoow Medico-Chirurgical Society; Mr. Itzstein, Loudon; Dr. Buchanan, Glasgow; Mr. Buse, Swansea; Dr. Cole; Bath.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, September 5.*

### BIRTHS.

Births of Boys, 1056; Girls, 1095; Total, 2151.
Average of 10 corresponding years 1864-73, 2062·5.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 585 | 622 | 1207 |
| Average of the ten years 1864-73 | 697·9 | 666·5 | 1364·4 |
| Average corrected to increased population | ... | ... | 1501 |
| Deaths of people aged 80 aud upwards | ... | ... | 44 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Popula-tion, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 2 | 2 | 6 | 3 | 1 | 1 | ... | 16 |
| North... ... | 751729 | 1 | 2 | 21 | 4 | 5 | 4 | 6 | ... | 20 |
| Central ... | 334369 | ... | 1 | 6 | ... | 1 | ... | 2 | ... | 9 |
| East ... ... | 639111 | ... | ... | 27 | 1 | 2 | ... | 3 | 3 | 30 |
| South... ... | 967692 | ... | 1 | 12 | 2 | 8 | 3 | 7 | 1 | 45 |
| Total ... ... | 3254260 | 1 | 6 | 68 | 13 | 19 | 8 | 19 | 4 | 120 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·700 in. |
| Mean temperature | 60·3° |
| Highest point of thermometer | 74·7° |
| Lowest point of thermometer | 46·5° |
| Mean dew-point temperature | 53·4° |
| Geueral direction of wind | W.S.W. & S.W. |
| Whole amount of rain in the week | 0·66 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 5, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Sept. 5. | Deaths Registered during the week ending Sept. 5. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2151 | 1207 | 74·7 | 46·5 | 60·3 | 15·72 | 0·66 | 1·68 |
| Portsmouth ... | 120436 | 26·8 | 57 | 40 | ... | ... | ... | ... | 0·59 | 1·50 |
| Norwich ... ... | 82257 | 11·0 | 44 | 30 | 76·0 | 45·0 | 58·9 | 14·94 | 1·18 | 3·00 |
| Bristol ... ... | 192889 | 43·3 | 97 | 63 | 71·4 | 50·1 | 57·8 | 14·33 | 2·27 | 5·77 |
| Wolverhampton ... | 70896 | 20·9 | 50 | 43 | 69·6 | 46·3 | 56·7 | 13·72 | 1·33 | 3·38 |
| Birmingham ... | 360892 | 43·0 | 266 | 195 | 70·0 | 48·5 | 57·6 | 14·22 | 0·89 | 2·26 |
| Leicester ... ... | 106202 | 33·2 | 84 | 59 | 74·5 | 45·2 | 59·3 | 15·16 | 0·39 | 0·99 |
| Nottingham ... | 90894 | 45·5 | 70 | 45 | 71·5 | 43·3 | 57·3 | 14·05 | 0·61 | 1·55 |
| Liverpool ... ... | 510640 | 98·0 | 367 | 313 | 66·7 | 50·3 | 56·6 | 13·66 | 1·14 | 2·90 |
| Manchester ... | 355339 | 82·8 | 271 | 183 | 71·0 | 47·0 | 57·3 | 14·05 | 0·95 | 2·41 |
| Salford ... ... | 133068 | 25·7 | 117 | 77 | 69·2 | 45·8 | 56·7 | 13·72 | 1·22 | 3·10 |
| Oldham ... ... | 86281 | 18·5 | 61 | 36 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 117 | 91 | 68·8 | 49·2 | 57·6 | 14·22 | 0·59 | 1·50 |
| Leeds ... ... | 278798 | 12·9 | 223 | 153 | 71·0 | 48·0 | 57·9 | 14·39 | 0·69 | 1·75 |
| Sheffield ... ... | 261029 | 13·3 | 195 | 147 | 71·0 | 45·0 | 57·0 | 13·89 | 0·65 | 1·65 |
| Hull ... ... ... | 130996 | 36·0 | 95 | 29 | 74·0 | 45·0 | 58·0 | 14·44 | 0·43 | 1·09 |
| Sunderland ... | 104378 | 31·6 | 74 | 52 | ... | ... | ... | ... | ... | ... |
| Newcastle-on-Tyne | 135437 | 25·2 | 103 | 82 | 66·0 | 47·0 | 54·9 | 12·72 | 0·00 | 0·00 |
| Edinburgh ... ... | 211691 | 47·8 | 130 | 70 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 348 | 246 | 65·5 | 38·5 | 54·8 | 12·66 | 1·25 | 3·17 |
| Dublin ... ... | 314666 | 31·3 | 189 | 181 | 67·9 | 43·6 | 56·9 | 13·83 | 1·38 | 3·51 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5109 | 3382 | 76·0 | 38·5 | 57·4 | 14·11 | 0·90 | 2·29 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·70 in. The lowest was 29·36 in. on Thursday evening, and the highest 29·86 in. on Saturday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

### Lecture VII.—Acute Tuberculosis (*continued*)—Tubercular Peritonitis.

In cases where the grey granulation is seated principally in the peritoneum, and the first special manifestations of distress arise from the abdomen, the disease generally runs a much less acute course, and the symptoms in the beginning may be very obscure. The general symptoms also by which the local disease is preceded are in the majority of cases trifling and indefinite; the fever is moderate, the pallor slight, and the loss of flesh very gradual. Indeed, until peritoneal inflammation comes in to complicate a case of abdominal tuberculosis, there is often little in the condition of the child to indicate the presence of serious disease.

The first symptom complained of is pain in the abdomen, accompanied often by some slight but general tenderness. This may occur at first only on movement, so that the child neglects his usual games, and prefers sitting quietly to indulging in any bodily exertion. The tenderness is usually discovered by the child leaning his body against a table or chair, when he will say that the pressure hurts him. Often, however, tenderness is a later symptom, and manipulation of the abdomen elicits no expression of discomfort. At this time the appetite of the child is often good; there is no vomiting or other sign of digestive disturbance, and, except for some disinclination to exercise, the patient appears to be in his usual spirits. His general health is, however, evidently impaired. He wastes slowly but perceptibly, and the bodily heat is increased, the temperature rising every evening to 101° or 102°.

The pain after a time increases and becomes markedly paroxysmal, the tenderness is more pronounced, and the bowels are often capricious, so that attacks of diarrhœa alternate with constipation. The belly then begins to swell slightly, and palpation can sometimes detect a decided fluctuation. Before, however, this stage of the disease is reached, a considerable time may elapse. Slight pain, with a little tenderness, may be in existence for weeks, or even months, before any further symptoms are noticed, and may even disappear altogether for a time, although they usually return after a longer or shorter interval.

The swelling of the abdomen is caused by an accumulation of gas. It is not the result of ascites, for the amount of fluid is rarely sufficient to cause distension of the belly. So far, indeed, from this being the case, fluctuation is not unfrequently absent altogether, and we may have to make our diagnosis without it. Instead of fluctuation there is in many cases a sense of vague impulse conveyed between the fingers placed on each side of the abdomen. The sensation is one which differs very much from the definite tap of a wave of fluid. It is an impulse transmitted by the coils of intestine more or less agglutinated by lymph, and holding a certain quantity of fluid between their folds. The presence of fluid can be often demonstrated by percussion. Thus, if fluid be present, there will be dulness in each flank as the child lies on his back; but when he is made to turn upon his side, the note produced by percussion upon the side turned uppermost after a few seconds becomes clear. At the same time there is usually considerable sense of resistance on pressing the abdomen; the tension of the abdominal muscles is increased, and, if the accumulation of gas be large, the belly becomes hard and drum-like. This tension is not, however, a constant symptom, and does not increase uniformly with the disease as that advances, but is found to vary from time to time in degree. In some cases it is altogether absent, and the abdominal wall remains soft and yielding throughout. Increase of resistance is not, however, always the result of increased tension of the abdominal parietes. As the deposit of lymph accumulates in the peritoneal cavity, and the coils of intestine become massed together and adherent, a sense of solidity is conveyed to the hand pressing upon the abdomen which is very characteristic, and the more so that the resistance varies in different spots, being well marked in some places, while in others the parietes yield naturally to the pressure of the hand. This localised increase of resistance is one of the diagnostic tests of the disease. In certain cases hard masses of cheesy lymph can be felt through the parietes. When the disease is confirmed, the shape of the belly undergoes a characteristic alteration: it is oval, with a plain uniform surface, which presents none of the slight prominences and markings natural to the abdominal wall in a state of health. If there be much distension, the superficial veins may become visible, especially if, as is often the case, the disease is accompanied by enlargement of the mesenteric glands. The pain when paroxysmal is usually severe, but it is not always a prominent symptom, and the amount of tenderness may be comparatively insignificant and much less strongly marked than the nature of the complaint would lead us to expect. Sometimes neither pain nor tenderness are complained of throughout the course of the disease; and in such cases, unless the abdomen be much distended, there may be nothing in the symptoms to draw attention to the belly, and, indeed, until signs arise indicating tubercular disease of some other part of the body, the condition of the child may be such that medical advice is considered unnecessary. Such an instance has already been related (see *Medical Times and Gazette*, May 2, p. 472, case of Maria H.). Few cases, however, occur where movements which give a sudden shock or jerk to the body are not a source of pain, and the child's own consciousness of this fact will induce a caution in his movements which is very peculiar. Thus, he will be noticed to go downstairs backwards so as to diminish the jerk, or to steady the abdomen with his hand as he walks, so as to control the vibrations produced in his body by the movement.

When the local symptoms become pronounced, the temperature rises, and the thermometer often marks 104° or even higher. At the same time the plumpness of the child rapidly diminishes, and his face assumes a pinched, worn expression, indicating great suffering, and highly characteristic of abdominal disease. He lies in bed with his knees drawn up, and movement of any kind seems to increase his distress. The pulse is rapid and weak; the lips dry, and often covered with sordes; diarrhœa is frequent; and death is usually preceded by extreme emaciation. The symptoms may remain throughout limited to the abdomen, or indications may be noticed showing that the disease is not confined to one cavity of the body. Cough and other symptoms arising from the chest may be observed, or death may be preceded by squinting or convulsions.

A very obstinate diarrhœa, with the passage of dark, watery, offensive stools, containing shreds of mucus and flaky matter, with small black clots of blood, is very suspicious of accompanying ulceration of the bowels.

The grey granulation is sometimes limited to the peritoneum lining the abdominal cavity or enveloping the contained organs, but often also it is found in the substance of the liver, kidneys, and spleen; and the mesenteric glands are usually enlarged and cheesy. In many of these cases Dr. Bastian has found the liver to be in a state of acute cirrhosis.

Selina L., aged seven years, was admitted into the East London Children's Hospital on January 14. The child had been well during the previous four years, but nothing could be discovered as to her health before that time, as her mother had long been dead.

Her present illness began about a fortnight before Christmas with pain in the region of the umbilicus, which was increased by coughing. There must also have been some tenderness of the abdomen, for she complained of being hurt by her sister who slept with her. About this time the belly looked large, and it has since increased in size. She has been losing flesh, has often complained of thirst, and her skin has been noticed to be hot. She has been rather languid and listless, and has neglected her usual amusements; but this was partly on account of the pain in the belly produced by exertion.

*State on Admission.*—Child in pretty good condition, not thin. Skin of body generally rather harsh, and of a peculiar sallow tint. Conjunctivæ slightly yellow. Belly very full, with free fluctuation all over; it does not seem to be tender, and she says she has now no pain. Liver does not project below the edges of the ribs. Behind the liver dulness reaches to within a finger's breadth of the angle of the scapula. Spleen cannot be felt. Urine acid; specific gravity 1012; contains a slight trace of bile pigment; no albumen.

After she had been some days in the hospital her bowels became relaxed. The fluid then disappeared from the

abdominal cavity and did not return. She remained an in-patient until February 22, for although she had ceased to have any abdominal symptoms, the temperature remained persistently high, varying from 100° to 101°. It was still high when she left the hospital. In other respects she seemed well.

The patient was readmitted on April 16. She now appeared to be very ill. Her face looked pinched, and the skin was very hot. Temperature at 6 p.m., 104°. There was indistinct fluctuation of the abdomen, which was very tender but was not especially full or otherwise altered in appearance. At the umbilicus a hard substance was felt, which appeared to be seated immediately beneath the abdominal wall. The induration was of about the size and shape of a crown-piece; the centre was at the navel, and the circumference was distinctly marked, especially at the upper part. It was extremely tender, and pressure upon it caused great pain. The child now began to waste very rapidly; her face became haggard, and her cheeks and temples hollow; the bowels also became relaxed, and her appetite failed. The temperature was always over 100°, varying from 100° to 104°. Her favourite position in the bed was on her back, inclining to the left side, with her knees drawn up. The abdomen remained very tender, and looked full, although the walls were flaccid. The indurated substance previously felt lost its circular shape, and became less distinctly circumscribed.

On May 6 the upper margin was distinctly to be felt immediately above the umbilicus, but laterally it faded gradually away, and was lost in general hardness along the sides of the belly, so that the impression produced to the finger was that of a straight line of induration passing outwards on each side from the umbilicus. Below this level the resistance of the abdominal wall was very much increased; the whole of the lower part of the belly gave more or less of a firm feeling to the touch, and was more tender than the upper part. No friction was heard when the ear was applied to the abdominal wall. On examination of the chest some want of tone was found at each base behind, and some large-sized bubbling rhonchus was heard about both backs.

The child got rapidly weaker and more emaciated, the mouth and fauces became aphthous, and she died on May 18, the temperature shortly before death being 102·4°.

On post-mortem examination of the body the intestines were found matted together by recent lymph. This was especially noticeable towards the central and lower parts of the belly, and was the cause of the hardness which had been noticed during life. The abdominal cavity contained about two ounces of dark yellow turbid fluid. On opening the bowel, several ulcers, circular or oval, and very cleanly cut, were found in the large intestine and ileum. At the upper part of the ileum was a spot where there was a collection of small masses varying in size from a peppercorn to a large pea. These masses were situated under the mucous membrane; they were yellowish-white and cheesy, and were evidently tubercles. The mucous membrane at this spot was not inflamed, but there were two or three small, cleanly cut ulcers with thickened edges. These had perforated quite through the coats of the bowel.

In other parts of the small intestine, so far at least as it could be followed out—for in places, on account of gluing of different portions of the bowel together by lymph, the canal could not be laid open—a few scattered tubercles, like those already described, were seen here and there.

Many cheesy glands of different sizes were found adherent to the intestine and scattered through the mesentery.

The liver was congested, and was firmly adherent to the diaphragm above, and to the kidney and stomach below. At its anterior border it presented several yellow projecting masses, varying in size from a pea to a marble. These showed a bright yellow granular surface on section, and were apparently softening. These masses were similar in appearance to those in the intestine.

The lungs were collapsed at their posterior surfaces, but contained no tubercles; neither did the spleen or kidneys.

This case well illustrates the insidious beginning of peritoneal tuberculosis. There were fever, wasting, and languor, but the pain and tenderness were slight, and there was no vomiting or other sign of digestive disturbance. Effusion soon took place into the peritoneal cavity, but this disappeared after an attack of diarrhœa. The pain and tenderness also subsided, and, except for the continued pyrexia, the child seemed to be well. It was not until three months after the appearance of the first symptoms that the child appeared to be in any danger. At that time the inflammation returned with greater violence, the temperature became still more elevated, the pain and tenderness were severe, and an examination of the belly showed signs of extensive disorganisation.

The absence of vomiting is especially to be noticed. In simple peritonitis, the beginning of the inflammation is generally accompanied by much gastric disturbance; but in cases where the inflammation occurs secondarily to tuberculosis, sickness is rarely met with.

On account of the obscurity of the earlier symptoms, tubercular peritonitis is frequently overlooked at its beginning. Abdominal pain is common enough in children, and is usually at once attributed to digestive derangement. It is well, however, in all such cases to make special examination of the belly, for although the symptom is probably due to indigestion of food, it may arise from a more serious cause; and, should the child afterwards succumb to an attack of tubercular peritonitis, the failure to recognise the early signs of so grave a disease is a mistake which the friends of the patient are not likely readily to forgive.

When a careful examination of the abdomen detects the presence of evident tenderness, the symptom is a very important one. Flatulent pains are not increased by firm, steady pressure; and if, while diverting the attention of the child, we find that such pressure causes a cry of distress, we should look for some other cause of the discomfort than mere flatulent spasm. Again, a persistent temperature of over 100° is not produced by a chronic indigestion, and when associated with abdominal tenderness and pain, these form a very suspicious combination.

We must not, however, in cases where this group of symptoms is complained of, allow our attention to be directed too exclusively to the abdomen, or we may overlook the existence of a pleurisy. The pain of pleuritic inflammation is often felt in the belly, where there may even appear to be some tenderness, and the temperature is generally elevated. An examination of the chest must, therefore, on no account be omitted. Persistent abdominal pain is no evidence of tubercular disease, so long as there is no tenderness and the temperature is natural. Such pains are of common occurrence.

The following case is the type of a class very frequently to be met with. The symptoms are due merely to a functional derangement, and have no gravity whatever, but they often persist for months together if not treated judiciously.

M. B., a little girl, aged eight years, who had cut twelve of her second crop of teeth, was brought to me with the following symptoms:—For some weeks, although apparently in her usual spirits, she had been losing flesh and had complained of pain in the belly, coming on at different times in the day and sometimes in the night. It had been noticed that during the day she often complained shortly after taking food. The pains were seated towards the lower part of the abdomen, and appeared to be griping in character; but the child did not attempt to relieve them by bending the body as in ordinary flatulent pains. They were not accompanied by any feeling of sickness. When severe, her face became very pale and her lips colourless. The girl's appetite was good, but not excessive; her bowels regular, but inclined to be costive, and she sometimes strained at stool. At night she was restless and her sleep was disturbed, but she had no worms, nor had mucus been noticed in the evacuations. Her tongue was clean, her face rather pale, but not at all sallow, and there was no yellowness of the conjunctivæ.

On examination the abdomen was found to be natural without tenderness, and her temperature was that of health. She had been treated with aperients, but with little benefit. This patient was very quickly cured by an alkaline mixture, with a bi-weekly dose of syrup of senna, and the use of a flannel bandage to the belly. The parents, too, were directed to be sparing for a time in the amount of farinaceous matter allowed in her diet. Potatoes, in particular, were strictly forbidden.

Tenderness of the abdomen is, then, an important element in the diagnosis of tubercular peritonitis. If therefore, in a child who complains frequently of pains in the abdomen, there is general tenderness of the belly, and especially if the temperature of the body be higher than that of health, we should suspect the beginning of tubercular peritonitis. The tenderness, when it is slight, is often elicited by slight jerks or shocks, and these cause distress to the patient out of all proportion to their apparent violence. Therefore, caution in the movements of a child—so contrary to childish habits—should

never be disregarded; and if he be seen to steady his abdomen with his hand as he walks, the sign is a very suspicious one.

When the patient is seen at a later period of the disease, and after the symptoms have become severe, it has still to be decided whether the inflammation be simple or be due to tubercular disease. This question can only be answered by a reference to the history of the child. A history of general failure in nutrition preceding the onset of the disease is in favour of the tubercular origin of the peritonitis; but the strongest and only trustworthy evidence is to be derived from the character of the local manifestations and their mode of beginning. Simple peritonitis comes on suddenly; the symptoms are severe from the first, and vomiting is common and distressing. In tubercular peritonitis the beginning is slow and gradual, the symptoms at first are slight, and vomiting is rare. The more severe the early symptoms, and the more acute the course of the disease, the greater the probability of the absence of tubercle.

(*To be continued.*)

## ORIGINAL COMMUNICATIONS.

# OPERA CLINICA.

# ON BLOOD-LETTING AS A POINT OF SCIENTIFIC PRACTICE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

(*Continued from page* 258.)

### Effect of Blood-letting in Cases of Uræmic Coma.

In my last paper I recorded certain instances in which blood-letting had proved of service in the treatment of uræmia, to the extent of saving life. I have yet before me the record of another case, in which, although life was not ultimately saved, an abstraction of blood caused a return of consciousness from deep insensibility which was singularly striking. The case was that of an aged man, who was subject to albuminuria and who had occasional attacks of diarrhœa, a compensatory action for the imperfect function of the kidneys. For one of these attacks he was treated with grey powder and Dover's powder, by which, as is common during albuminuria, he was mercurialised. He recovered, but twelve months afterwards, having been exposed to wet, and taking what he called a cold, he was once more attacked with diarrhœa, was treated again with mercury, and again suffered from the effect of that drug. The ptyalism was this time attended by profound coma and frequent paroxysms of uræmic convulsion. At this period of the case the patient first came under my observation. His skin was warm, at times hot; the coma was profound, the breathing heavy, the pupils slightly dilated and fixed, and the pulse full and slow. The gums were swollen; the teeth were loose and saliva was constantly exuding from the mouth. About every two hours the repose of the patient was broken by a violent convulsive seizure. This convulsion lasted full fifteen minutes, and then subsided, the coma continuing throughout. The bowels were constipated, but a little urine was occasionally passed, and was found to be richly charged with albumen. The symptoms being urgent in the extreme, I advised, with the practitioner who was in attendance with me, the free abstraction of blood. This was agreed to. We first cupped freely over the loins, and, the coma still remaining, we drew off twelve ounces of blood from a vein in the arm. While this blood was flowing, the patient, for the first time in seventy hours, became sensible, sat, propped up by pillows, recognised all his friends, remained conscious several hours after the venesection, partook of beef-tea, and arranged certain business matters which had been waiting for his decision. On the evening of the following day this patient relapsed into the comatose state, and died the next morning in one of the convulsive seizures.

I note this case as specially valuable in showing the immediate useful action of abstraction of blood, even when the conditions favourable to death are persistent in their course.

### Effect of Blood-letting for Relief of Severe Pleuritic Pain.

The ancients discovered that by the abstraction of blood acute pain, especially pain in the membranes, was speedily and effectively cured. Galen, seized with severe pain near the diaphragm, opened the artery between his thumb and forefinger, drew off a pint of blood, was instantly relieved, and, he believed, saved. He cured a priest, he says, of a desperate pleurisy by the same method. The following cases bear out this practice:—

(A) A young, spare man, a shoemaker by trade, was suffering from what was called a sharp pleurisy. He said it came on like "a stitch" during a time when he had taken cold. I found him in bed, with his skin hot, his face anxious, his pulse hard, and his breathing short and difficult, from the severe darting pain which every attempt to fill the chest produced. On the right side, on a level with the nipple below the axilla, there was a sharp friction-rub with every inspiration. At the man's own request—for he had been bled some years before—I tied up his arm and drew blood from a vein until he showed slight signs of faintness. He was completely relieved of his pain at the moment, and had no return of it. With the reaction from the bleeding, there was free secretion by the skin, by the urine, and from the pleuritic membranes, for the friction-sound ceased; afterwards recovery was steady until it was perfected. This man resumed his work in a week after the bleeding, and although he seemed a very unlikely person to bear the loss of the blood that was abstracted from him (sixteen to eighteen ounces), he never appeared to feel the loss or to experience any effect, except the slight temporary faintness and the removal of the pain.

(B) Mr. Beresford, of Narborough, whom I assisted some months in my early life, reminded me the other day of a case similar to the above, in which I took blood with the same good effect. The patient in this instance was also a young man, who suffered from acute pleurisy, with extreme pain in the chest, friction-sound, and minute crepitation. There was high fever, hard pulse, and slight delirium. I may call the case one of pleuro-pneumonia in its first stage. When I reached this man's bedside I found that some leeches had already been laid on the chest, and that a linseed-meal poultice had been applied, but that no relief had been obtained. I thereupon tied up his arm, and drew off twenty ounces of blood, with direct relief to the pain and to the oppressed breathing. A simple saline treatment was all that was added to complete the cure of this man, who is still, I learn from Mr. Beresford, alive and well.

### Effect of Blood-letting in Pleuro-pneumonia with Phrenitis.

In 1854 I attended during her labour the wife of a man who acted as coachman to a nobleman of very eccentric and irascible nature. The husband of my patient (the coachman) was a steady man, anxious to do his best, but was the victim of his master, whom he could never by any ingenuity or service satisfy. The labour of the poor woman was long and severe, extending through the whole of the night, and I noticed that her husband, whom I will call M., was all the time unusually anxious and miserable. Whenever I went downstairs from the small bedroom where the patient lay, M. was sitting before the fire, with his head buried in his hands, and saying he was so cold. He complained bitterly to me of his service, declared he were better dead than alive, and wondered why men were made to be such slaves as he, and why such tyrants as his master were permitted. The cries of his wife when her pains came on agitated him greatly; he affirmed he could not stand them, and that he thought a doctor who had to hear much of them was as bad off as a coachman. I tried to soothe him, and, in order to divert him, got him to make me some tea: but I did not succeed as I wished, and altogether I thought him to be in a strange way. After his wife was delivered he was more cheerful, and I left him to go home to bed. I had not been asleep many hours when I was called in great haste to the residence of the master of M., and, arriving there, I found the man in the kitchen of the mansion, held by a rope in a Windsor arm-chair. I learned that a little time before, in a fit of maniacal excitement, he had rushed into the house, armed with a knife, declaring he would kill his employer. Happily, he was disarmed in time, and placed in the position in which I found him, the belief being that he had gone out of his mind. When I got to him he was to me as gentle as a little child, and agreed to go to bed; but as he sat he coughed a hard dry cough, and spat some rusty sputa, which made me suspect that he might be suffering from that form of pneumonia which is sometimes accompanied with symptoms of phrenitis. On examination I found fine crepitation in the posterior part of both lungs, a pleural friction-sound in the right lung, an injected condition of the

conjunctivæ, a hard pulse, hot skin, and suppressed function of the kidney. Without waiting to do anything less active, I took from a vein in the arm of the man twenty-two ounces of blood. The loss produced no faintness, but a subdued calm state both of body and mind, with a desire for sleep, which, under a full dose of Dover's powder, was soon obtained. From this time the severely acute symptoms passed away, and the disease resolved itself into one of ordinary pneumonia, which ran a course of about seven days, and from which the recovery was as effective as could be desired.

I heard of this man (M.), long afterwards, that he remained in good health, obtained a situation that suited him, and was considered a good and trustworthy servant. I remember no example in which the immediate and direct effect of removal of blood for the relief of vascular tension was more significantly demonstrated. If blood-letting had not been an old remedy, and if in such a case as this any physician had discovered its application and gained the same results, he would thereby have won a place in the history of his era.

*(To be continued.)*

## THE INTERNAL ADMINISTRATION OF ABSOLUTE ALCOHOL.

By JOHN C. LUCAS, L.R.C.S.E.

The internal use of alcohol in the anhydrous form, or as rectified spirit, has hitherto been unknown in therapeutical literature. Rectified spirit, as we are aware, contains 84 per cent. of absolute or anhydrous alcohol; it enters into the preparation of most of our tinctures, and is largely employed for external purposes. But when given internally in properly regulated doses, it should always be freely diluted, and properly disguised with peppermint, and perhaps coloured with tincture of lavender, not only to conceal its disagreeable taste, but likewise to prevent the patient from knowing that he or she is taking alcohol, the dose being adjusted in accordance with the demand of each individual case. The advantages gained in this mode of exhibition are great over ordering brandy, etc., as a portion of nourishment, in cases where we have hitherto employed the latter for virtues possessed by the former, without the evils and uncertainty attending the usual mode of administering alcoholic stimulants. I shall briefly state the objections to ordering brandy, gin, etc.

First and foremost, the quality of the brandy, etc., plays the most important part, especially as it is our main object to regulate the quantity of alcohol taken by our patient, not to speak of the impurities and adulterations, so that if we prescribe it in the form mentioned above we are positive as to the quantity, and that our patient does not have the noxious ingredients contained in bad brandy, gin, etc.; the former when good ought to contain a little more than half its weight of alcohol. Secondly, when it is dispensed and labelled in the ordinary way as medicine, the friends of the patient, and nurses, are more likely to give it at specified and regular intervals as desired by the practitioner than if brandy, etc., were ordered in the form of nourishment. Thirdly, the patient, if conscious, takes medicine more readily than food. Fourthly, and lastly, we know that in lower-class patients, the friends who nurse the sick are too often tempted to help themselves out of the stock which ought to be consumed by the patient. Unfortunately, this evil we sometimes, though rarely, witness in hospital practice, where the nurse, addicted to drink, robs the sick of the important alcoholic portion of nourishment. Of course this is neither expected nor seen in tolerably good-class practice, nor in well-governed institutions.

In the few cases in which I have adopted this method (originally inculcated by Prof. Parkes, of Netley), I have found every good derived. The stimulating effect, when desired, seemed to me to be more marked, more rapid, and more lasting than when an equivalent of brandy (good) was allowed. If we watch the patient after he has taken three drachms of absolute alcohol—an amount equivalent to six drachms of brandy,—we notice almost immediately the pulse becoming fuller and stronger, and the limbs, which may have been previously cold, become warmer. The patients themselves have told me that they felt revived almost immediately after swallowing it. But given in larger doses (even two drachms) in debilitated and cachectic subjects, it produces a pulsating sensation in the limbs felt by the patients themselves. Before concluding, I may add that after convalescence from acute affections has been established, especially in the young and in females, the bad habit of drinking, so often cultivated, is easily avoided.

## REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

### ST. PETER'S HOSPITAL.

#### LARGE STONE IN THE BLADDER — LATERAL LITHOTOMY—DEATH ON THE TWELFTH DAY AFTER THE OPERATION.

(Under the care of Mr. TEEVAN.)

Matthew Y., aged 64, labourer, was admitted into the hospital on September 25, 1873, suffering from stone in the bladder.

*History.*—Twelve years ago he began to pass gravel for a short period. Five years ago his urine got thick, and remained so for some time, and about the same period he began to suffer from pain at the end of the penis when he made water, and to pass blood occasionally. Four years ago he noticed that he had to make water every quarter of an hour, but was better at night. The patient and his parents are natives of Cambridgeshire. One of his sons was cut for stone when four years old. Has suffered from gout and rheumatism.

*Present Condition.*—Patient is a hard, sinewy-looking man of healthy aspect. Suffers great pain when urinating, and towards the close of the act the penis becomes erect, and blood escapes from the urethra. The urine is sometimes thick, at other times clear, but there is not much albumen in it. The patient was kept quiet in the hospital until the day of the operation, with much comfort to himself.

On October 6, at 3 p.m., he was put under the influence of ether by Mr. Daws, who used Professor Morgan's apparatus for the purpose. Among those present was Mr. T. Gutteridge, of Birmingham, who took much interest in the case, and visited the patient on several occasions afterwards. Mr. Teevan passed a rectangular catheter staff, and, having demonstrated the presence of the stone, he gave the instrument to Mr. W. J. Coulson to hold. The bladder having been opened with a probe-pointed knife, the stone was at once grasped with a slender fenestrated forceps, and the extraction commenced very slowly, on account of the large size of the calculus. As, however, the stone was pear-shaped, Mr. Teevan exercised gentle traction, with the hope that it might come through the opening already made, without any further extension of the incision. In this, however, he was disappointed; and, as he did not consider it prudent to exercise any more force, he inserted a probe-pointed bistoury and slightly enlarged the aperture, so that the stone now glided out. It measured two inches and a quarter long, four inches and a quarter in circumference, weighed two ounces, and was composed of lithic acid. Very little blood was lost at the operation, and the patient's pulse was good, and face florid after he had quite rallied from the effects of the ether. 5 p.m.: No blood or urine had passed since the operation, and the patient had hardly expressed his great desire to pass water when there immediately gushed out about one pint of clear urine, followed by about a handful of clots. A few minutes afterwards he looked pale, and said he felt cold and inclined to shiver. His pulse was fair in volume, but soft. Hot-water bottles were put to the feet, hot blankets next the skin, and warm milk given internally. At 6 p.m. the patient had got warm again, but he complained of a desire to make water, and instantly there was another gush, but not so large as on the former occasion; and it was followed by the expulsion of a few small clots. As the patient looked pale, pieces of ice were put in the wound, and an ice-bag above the pubes. At 7 p.m. he said he felt comfortable; colour had returned to his cheeks; had not experienced any sickness. At 9 p.m. urine, slightly tinged with blood, began to trickle through the wound. The patient's pulse was 68, very little faster than it was before the operation, when it was 64; tongue foul and dry, but it had been so ever since he came into the hospital.

October 7.—6.30 a.m.: Patient has had some sleep during the night; urine has dribbled away quite clear; tongue cleaning.

Patient says he feels quite comfortable and free from pain. The expression of his countenance is calm and cheerful. Complains of thirst. 10 p.m.: Bowels have been opened. Feeds well on milk, beef-tea, and toast. Tongue foul, but moist; is thirsty.

8th.—9.30 a.m.: Pulse 70, and, although soft, still very steady; temperature 101·3°. Patient looks well, but has had no sleep, on account of rheumatic pains flying about both legs, and attacking the right knee especially. Tongue very dry and rather brown; feels parched. Face pale and fatigued-looking. Patient has not had the slightest hypogastric tenderness, neither is there any tenderness in any of the joints. Ordered to be wrapped in hot blankets. 8 p.m.: Patient more comfortable. Tongue not nearly so dry. Pulse 78. Still complains of thirst.

9th.—2 p.m.: Pulse 78; temperature 102°. Tongue rather dry.

10th.—10 a.m.: Pulse 88; temperature 102·3°. Tongue furred and dry. Has slept a little. Suffers a good deal from pains in the legs of an erratic character, but there is no pain on pressing any of the joints, neither is there any fulness or redness. Patient says he would like to sit up. Ordered quinine. 10 p.m.: Pulse 92; temperature 103°. Looks flushed. Wound healthy. No abdominal tenderness.

11th.—7 a.m.: Pulse 88; temperature 102·4°. Tongue moist, but furred. Has slept fairly. Complains of thirst. 8 p.m.: Pulse 107; temperature 103·2°. Very thirsty. Cannot move on account of pains in knees. Looks flushed.

12th.—11 a.m.: Pulse 92; temperature 101·4°. Much less pain in knees. Slight excoriation over right hip, evidently from irritation of urine. Wound looks rather dry. Tenderness along left saphena vein is less. 10 p.m.: Pulse 102; temperature 102·3°. Patient says his legs are almost free from pain.

13th.—2 p.m.: Pulse 95; temperature 101·1°. Patient is very comfortable.

14th.—Much better. Moves about well. Shaved himself to-day. Feels he could walk about. At 9 a.m. temperature was 100·4°, and pulse 95. Bowels relaxed. Tongue rough, dry, and brown. Ordered catechu and chalk.

15th.—5 p.m.: Patient looks pale, and he says he feels "low" to-day. Bowels not so loose. Pulse 126; temperature 102·3°.

16th.—10 a.m.: Pulse 126; temperature 98·3°. Looks thinner, but the tongue is not so dry or brown. 6 p.m.: Pulse 130; temperature 101·2°. There are two small bedsores over hips. Has eaten a mutton chop. Is not so thirsty.

17th.—6 p.m.: Pulse 127; temperature 100·1°. Patient looks pale and anxious, and he cannot articulate clearly. Pulse feeble and thready. Has rambled from time to time. Takes food pretty well.

18th.—5 p.m.: Pulse 136; temperature 98·4°. Is covered with a cold clammy sweat. Eyes glassy; can just recognise people, but can hardly speak. Is evidently sinking fast. 8 p.m.: Much worse. Pulse 144, can just be felt. No diarrhœa since 15th. Death took place at 10.30 p.m. Permission was given to examine the abdomen only.

*Post-mortem, thirty-six hours after Death.*—Kidneys healthy; ureters of normal calibre. Peritoneum free from any inflammation. Rectum enormously distended with fæces, filling up nearly the whole of the pelvis. Bladder greatly thickened, fasciculated, contracted, and containing some muco-pus. The mucous membrane was inflamed, and there were many veins standing out from the wall of the bladder. The prostate was not much hypertrophied, but its plexus of veins was enlarged, inflamed, and filled with clots. In its roof there was a rent clearly made during extraction, completely splitting the gland in two at that part, the halves being held together by bands of the fibrous capsule. The differences between the incision made by the knife, and the laceration caused by extracting the calculus were very manifest, for the former was clean-cut and had evidently been repaired in part, whilst the latter was sloughy and irregular. The rectum was wounded at the operation just inside the anus, the slit communicating with the wound in the ischio-rectal fossa.

*Remarks.*—Mr. Teevan said that in this case he had rather departed from his usual method of removing a calculus through an aperture made entirely by cutting, because the stone was pear-shaped, and just such an one that would dilate a prostate, if dilatation were possible. Now, although the extraction was conducted very slowly and gently, aided by a slight notching of the wound with the knife when the thicker part of the stone was passing, yet, after death, the prostate was found completely split in two, thus demonstrating the fact of the non-dilatability of that organ, although the contrary was affirmed in nearly all surgical works. Now, all facts prove the accuracy of Professor Ellis's doctrine regarding the non-dilatability of the prostate, and this case added one more to the many which went to show that the so-called dilatation of the gland was complete laceration.

## BRISTOL GENERAL HOSPITAL.

### CASE OF ABDOMINAL ANEURISM.

(Under the care of Dr. BURDER.)

[Notes by J. H. THOMAS, Esq.]

A. L., AGED 31, admitted May 26 into the Bristol General Hospital under the care of Dr. Burder. Patient is a labourer, and has done a great deal of hard work. Has never had rheumatic fever. There is a history of syphilis. Has had occasional attacks of sickness, but on the whole has been a very healthy man all his life. Present illness began eleven weeks ago with a severe pain in his stomach and back. He was obliged to leave off work, and has not done any since. The pain keeps him awake at night. He states that when the pain came on first he was not lifting any weight or making any very great exertion, but it came on suddenly.

*Present Condition.*—There is a very anxious expression on the man's face. He complains of a severe pain in his epigastric and left hypochondriac regions. He has a severe pain in his lumbar region; there is also some tenderness in this region. The pains are constant. He moves freely about the bed, and does not complain of any weakness. No appetite. Tongue dirty. Bowels very costive. Is sick occasionally after his food. Pupils are about the usual size; there is no difference between them. Optic discs normal; the vessels are somewhat congested.

*Chest.*—Lungs: Anterior—hyper-resonant; respiration harsh, feeble. Posterior—wooden at apices, but resonant all over the rest of the back. Respiration is harsh all over the chest-wall. Heart: Dulness normal; second sound somewhat prolonged. Liver and spleen: Dulness normal. Urine acid; no albumen; specific gravity 1016; phosphates. There is a distinct swelling to be felt in the epigastric and left hypochondriac regions. It is situated slightly out of the median line and is a few inches above the umbilicus. There is well-marked pulsation and bruit, an impulse heaving and radiating from the centre.

*Treatment.*—An ice-bag was applied.

May 29.—Pain very severe, so that an injection of one-third of a grain of morphia was given.

30th.—Ordered half a grain of extract physostigma three times a day, with a view to retarding the circulation.

June 1.—6.30 p.m.: Patient was sitting up in bed talking; he had just taken some food. About a quarter of an hour afterwards he began to vomit; whilst doing so he suddenly fell back on the bed, and died in a few minutes.

*Autopsy* (June 2).—Body fairly nourished. On opening the skull the brain and membranes were found to be healthy. The basilar artery was atheromatous. Chest: Lungs were congested, but otherwise quite healthy. Heart weighed ten ounces and a half; left ventricle empty and contracted; traces of commencing atheroma to be seen in the aorta. Abdomen: Liver weighed 2 lbs. 9½ oz., fatty; spleen and kidneys normal. The peritoneal cavity was full of blood. An aneurism about the size of a large orange, and springing from the front of the aorta about an inch or two below the diaphragm. The part of the aneurism which had given way, and through which the blood had flowed, was about the size of a shilling. The interior of the aneurism was lined with organised fibrine.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—The executors of the late Miss Hannah Brackenbury have contributed £200 out of the sums at their disposal in aid of the funds of this Hospital.

CONSTIPATION.—The following pill has been found very serviceable in correcting constipation:—℞. Aloes soc. pulv. gr. vj., ext. belladon. gr. iij., confect. sennæ q. s.; M. et divide in pil. xij. One night and morning.—*Medical Record*, Aug. 1.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

# Medical Times and Gazette.

SATURDAY, SEPTEMBER 19, 1874.

## HOSPITAL CONSTRUCTION.

We are glad to see that the Norwich people are not inclined to rest under the dilemma which was made public at the late meeting of the British Medical Association. They had flattered themselves that their Hospital was a place where the sick poor might recover their health; they learn that, on the contrary, it is a place where some of them find their death. The evidence on this point is overwhelming. There is first of all Dr. Copeman, who, in his Inaugural Address, confesses and laments the frequent occurrence of deaths from blood-poisoning after accidents and operations. Then we have the unanswerable statistics of Dr. Beverley, which agree with the statement made months before by Mr. Cadge, at the Clinical Society in London. Mr. Cadge leaves no doubt whatever that the deaths after operations are due to the Hospital, and nothing else. It is true that Dr. Copeman has since come forward on the wrong side with an attempt to show that the *general* death-rate of the Hospital is no worse than it was fifty years ago. But Dr. Beverley has challenged Dr. Copeman's figures as incorrect; and, even if correct, they furnish no argument one way or the other. The general death-rate of a hospital depends upon a thousand causes. A severe winter or spring might send in cases of fatal pleurisy or rheumatic fever, and so forth. What we are concerned with now is not the general death-rate, but the rate of deaths from blood-poisoning after wounds and operations during the last ten years; and on this point Dr. Copeman agrees that Dr. Beverley's figures are unimpeachable.

The numerous letters on this topic which have appeared in the *Norwich Mercury* are highly interesting and creditable to the writers and to the city. The Norwich people feel that there is something wrong with their Hospital, and desire to amend it; and as they are not singular in this respect, we venture to throw out some general suggestions.

Now, the vice of most hospitals is, that they are made to combine under one roof and government two, three, four, or more departments, which are utterly incompatible with each other. Let us see what these are.

First of all, the hospital receives patients affected with that class of illness that comes under the *general medical* head—such as rheumatism, pneumonia, diseases of the nervous system, and the like—to which may be added such surgical cases as are not attended with wounds or with any particular taint of the atmosphere.

Secondly, there are the *severe surgical* cases, attended with some wound, whether the result of disease or of surgical operation—such as compound fracture, amputation, abscess, and the like. These cases have two elements of danger. They are attended with discharges which are liable to become tainted, and with open wounds from which tainted and poisonous matters can enter the veins, and poison the whole blood, bringing about the condition named pyæmia. Now, such cases taint each other; and the more of them there are, the more risk is there. Instances are known without number, in which a set of wounded patients are doing well in a ward, when there is brought in some patient whose wound is attended with profuse and fetid discharge, such as a very severe burn, or a case of sloughing phagedæna. Immediately, case after case does amiss; either hospital gangrene or erysipelas or pyæmia spreads and infects the whole hospital. The *medical* patients who have no wound are liable to erysipelas of the scalp. Space and ventilation and antiseptics lessen the risk, and may prevent it perhaps indefinitely.

Thirdly, there are the infectious fevers—especially scarlatina—which, if introduced into a general hospital, will spread as elsewhere.

Now, we say most positively that modern experience has most amply proved that surgical patients with suppurating wounds, and after operations, should not be received into a general ward: they poison each other, and in time the medical patients. And, since if one such patient in any ward goes wrong, it fares ill with the others, the chances of each are made much worse by massing them together. As for the patients with infectious fevers, what more cruel than to put them into a general hospital ward? to let a child, admitted for a trivial accident, die of scarlet fever, taken from a patient admitted into the same ward?

Although, therefore, the severe surgical cases, and those of infectious fever, may share the benefit of the same medical attendance, nursing, and diet, still it is most cruel to put them under the same roof with the medical patients, or with each other. There may be a central block of good architectural proportions for the administrative offices, board rooms, chapel, and the medical wards; but into this no case of wound or operation or infectious fever should be admitted. These last should be treated in small, detached, single-floored huts or rooms, isolated from each other, though within the same grounds.

The out-patient department, which represents a fourth institution, should be utterly separated from the main building and from the surgical wards. Patients with all sorts of maladies, and with foul clothes, should not be allowed to contaminate the air. We believe that the Radcliffe Infirmary at Oxford was reconstructed, by Dr. Acland's advice, so as to avoid this source of mischief.

A fifth kind of institution—namely, the lying-in hospital—is rarely put under the same roof with the other already discordant elements of a general hospital. But women at this critical time are liable to the same contingencies as patients with wounds and operations—whatever taints the one will taint the other; and when an attempt was made, at King's College Hospital, six or eight years ago, to accommodate

lying-in women under the general hospital roof, the mortality was frightful.

Thus, if the Norwich people wish that their venerable Hospital should recover its usefulness and prestige, there is no doubt that they must provide separate and isolated accommodation for the operation and worst surgical patients—small humble buildings, easily emptied, cleansed, and, if need be, pulled down and rebuilt. The existing central portion might do for the administration and for the medical wards. It is of no use to talk of the money side of the question: they are not bound to have a hospital at all; but if they do, they are bound to have a wholesome one.

Lastly, to show that we are not speaking on theoretical grounds, we may say that the most successful series of operations on record in any public institution is that of the ovariotomies at the Samaritan. This is no imposing, architecturally embellished institution, but an old private house, where every patient operated on has a newly cleansed and purified room to herself, and the risk of taint passing from patient to patient is reduced to the lowest point. This doubtless costs money; but the patients are discharged alive and well, and there are no public lamentations over the fatality of blood-poisoning.

## DR. BEVERLEY ON PYÆMIA AT NORWICH.

One of the speakers at the late Norwich meeting foretold that the paper on the Norwich Hospital, read before the British Medical Association by Dr. Beverley, would do that faithful advocate of science and humanity no instant good. There is nothing so strange as the trouble which seems inevitable to the first advocacy of truth, and this especially if the truth do not run with the grain of the brainstuff it impinges on, or if the brainstuff be too resistant to receive it in any grain. Dr. Beverley, therefore, need not be surprised if the result of his honest and able work be unacceptable. He will be subjected merely to the fate of the bold and truthful, who, through tribulation, always win their way.

Dr. Beverley represents a cause which, as our Premier has somewhere told us—probably in "Coningsby,"—is an "abstraction, fit only for students." We, therefore, omitting all the personal part of the matter, and confessing ourselves to be students and nothing else, will study a cause, which, abstraction though it may be, is signally humane.

Ten years ago—viz., in 1864—the Norfolk and Norwich Hospital stood almost alone in the success that attended its surgical practice, and a report of this fact in our columns created not a little envious wrath. At that time 910 persons had been operated upon for stone, by lithotomy, and 792 had recovered. On two occasions *forty* cases of stone had been operated on without the occurrence of a single death. For seven years previous to the time named (1864) the whole surgical practice had been eminently successful; the total mortality of the Hospital had not been more than 4·85 per cent., while the mortality of the surgical practice was under 3 per cent. This mortality, the writer of the history of the Hospital said, fairly enough, might compare favourably with that of many towns and villages in which people are supposed to be in health and at work, instead of suffering from the painful and fatal maladies met with in a hospital. The key to the success was found in the fact that two of the most mortal maladies after operation were scarcely known. Looking over the list of deaths for seven years, the word pyæmia occurred but once, and erysipelas not once. This, we repeat, was the state of affairs ten years ago. It was Dr. Beverley's solemn and painful duty to show that since that time the spell had been broken; that the Norwich Hospital, once the exception in England for a low mortality, was now all but the exception the other way. In the period between 1864 and 1874 there had been 725 operations, with a result of ninety deaths—a mortality of 12·42 per cent.; and of these deaths twenty-four were from pyæmia. From the operation of lithotomy in the same place, in which on two occasions forty persons had been subjected to the operation without a death, the death-rate had risen to 1 in 6·85, or to 15·17 per cent., in the said decennial period. We must refer our readers to the "Medical History of Norwich," published in this journal in 1864, and to Dr. Beverley's recent paper for the details of this singular narrative of disease—this change of results on the same place of observation. At the present moment we keep to Dr. Beverley and his cause.

The reason of the change, Dr. Beverley shows, was the introduction into the Hospital of what are called the septic diseases. The good rule that Benjamin Gooch, one of the founders of the institution, had learned from Dr. Hunter—viz., that the wards should have fresh air, and plenty of it,—has been broken. To make more room for the sick poor the original plan of the building has been so much modified that the wards have become worse rooms for the patients than their own cottage homes; and it were better, therefore, to do away with the Hospital altogether than let it continue bearing its present pestilent fruit of mortality. Here is a pyæmic-stricken hospital, centenarian in age, its original form and sanitary arrangements good but spoiled by subsequent additions, and its requirements for the reception of surgical patients and for serious accidents of all kinds still greatly increasing. What with such an institution is to be done? The answer given by Dr. Beverley is common sense itself. We may comprise it in a sentence. Build no more additions to the plague-stricken house, but spend building money in erecting small surgical wards on open ground—wards not constructed to stand like the Pyramids, but which can be turned inside-out whenever necessary, and reconstructed, until they cease ever to be experimental chambers for the synthesis of pyæmia in the human subject. By this argument we stand, assured of its soundness, its economy, and its humanity; and equally assured that to attempt to make an old building—by its age a nesting-place for pyæmic poison—free of pyæmia, when that disease has once entered it, were an act of crass imbecility.

We are in most matters Conservative enough to oppose all changes that are at once radical and abrupt. But now we are dealing with Death; and with him even we are Radical enough to contend without giving him notice, or asking him to modify his strategy, in order to maintain peace. With this arch-enemy we would not make terms to save Dr. Beverley himself from any painful opposition into which he may have plunged. The question he has raised, one long pending, is a wide one, extending far out of the confines of Norwich; and if he be the instrument for creating a reform—of all reforms one of the most needed—he will be envied before he dies, and remembered admiringly when he is dead.

As we write, a rumour reaches us that because of his paper Dr. Beverley has been requested to tender the resignation of his office of Assistant-Surgeon to the Hospital, the ancient fame of which he is so anxious to restore. To such a rumour it were difficult to give credence. It would be equivalent to believing that in connexion with the institution there are partisans of an avoidable mortality—a belief too painful to cherish or accept. We may expect to hear of some opposition to Dr. Beverley's scheme,—that is a natural event; but that he should be dismissed or called upon to resign for the sake of his integrity, foresight, and advanced knowledge were surely impossible! Such an event would be a climax to the meeting of the British Medical Association, for which that gigantic disorganisation would be as responsible as Saturn for the devouring of his children.

## SCIENCE AND ATHEISM.

No one who is acquainted with the polemical proclivities of the Scotch will be astonished that the heterodoxies of Professor Tyndall have given rise to a considerable amount of public and private discussion in Scotland. If, as a people, the Scotch are eminently religious, they are to a still greater extent theological; and they were perhaps the first to be on their guard against the encroachments which science, especially geological science, threatened and still threatens to make upon accepted religious beliefs. At the same time, all who know anything about Professor Blackie's public spirit, his earnestness, and his devotion to St. Paul and Plato, will be quite prepared to hear that the learned Professor of Greek has entered the lists against Materialism with as much energy as he some time ago displayed in his attack upon Radicalism. Men of science have for ages been constantly branded with the opprobrious title of atheists. Sir Thomas Browne, in commencing the "Religio Medici," had to vindicate his assumption of the "honourable style of a Christian" when he remembered the general scandal which asserts that "*ubi tres medici, duo athei.*" Perhaps the majority of Sir Thomas Browne's contemporary readers considered that he had not at all proved that the stigma was undeserved; and there is some reason to believe that even at the present time the axiom is regarded as one approximately correct. We believe, however, there are few medical men who would not resent the assertion as a libel for which the plea of *veritas* could not be successfully advanced, and which from a legal point of view might be rendered more reprehensible by its being expressed in Latin, universally translatable *ad aperturam*. That doctors are atheists is about just as true as that surgeons are bad carvers—an observation which, as Syme used to say, had its origin in the fact, not that surgeons were worse carvers than other people, but simply that they were no better. But, if doctors as a rule are or ought to be exempt from the charge of atheism, Professor Blackie seems to have made up his mind that beyond all manner of doubt "Professor Tyndall and a few others of our apostles of natural science" have "floundered into such a limbo of blind absurdity as atheism." In fact, with regard to them Professor Blackie, in his charge of atheism, has, to speak profanely, gone back to the old betting of two to one on the field. The eminent and entertaining Professor seems to see "four principal causes of the dim clouds of atheistic sentiment at present blotting the clear atmosphere of divine philosophy." With such a numerically definite insight into the gloomy condition of the metaphorical heavens, it was only natural that Professor Blackie should publish the result of his cogitations. He never appears as a voluntary director of public opinion without leaving a favourable impression of his earnestness and his ability, and he might almost consider it necessary to lay his views regarding "modern atheism" prominently before the public, because for many years he has been closely associated with people who have concocted molecular theories of their own, and people who have the audacity to express a high opinion of Lucretius. But if the whole truth were known it might appear that the most direct reason for Professor Blackie's public attack on modern interference with cosmic philosophy, is that at present he has no Greek class before whom he may ventilate his exuberant opinions on subjects which, to people who know nothing of his versatility and power of pleasantly combining the ancient with the modern, might appear to have little relation to the classical heathens who may be supposed to form his stock-in-trade. Whatever may or may not have induced Professor Blackie to open a correspondence on this subject, there is no doubt that his four conclusions regarding the existence of "atheistic sentiment" contain some useful truth.

(1.) "There is the fact that John Bull is not naturally a philosophic animal, . . . and is apt when disturbed in his easy chair to make sudden wild plunges from stiff orthodoxy to staggering scepticism."

(2.) "There is the circumstance that the shaking of the foundations of traditional orthodoxy has in this age been accompanied by the spread of democratic ideas which delight to revel in the unlicensed anarchy of the individual, and are given to rebel against all fair ideas of order and authority, whether in social polity or in the cosmic system."

(3.) "The one-sided eagerness with which Englishmen in these latter days have fastened upon physical science is peculiarly unfavourable to the growth of a true philosophy of the universe, etc." Professor Blackie holds that the observation of nature is one thing; the philosophy of nature another, and a very different thing. But when we want a philosophy of nature we shall feel inclined to go for it to those who know most about nature—to those who have spent most time in the observation of natural phenomena. This may not be Professor Blackie's way of doing things, but we confess we have regarded it as the method which the moderns have agreed to be the best.

We are glad to find, however, that scientific men have not to bear the brunt of all Professor Blackie's classical wrath. The orthodox theologians have to writhe under his fourth and final lash. They "have bound up so much questionable matter and offensive dogmatism with the idea of God that a certain class of scientific men, not particularly strong in the organ of veneration, have thought it the cheapest way to get rid of the idea altogether." In fact, in keeping with the German proverb, "they throw out the baby with the wash-water." Perhaps in Scotland this will be the least questionable of all Professor Blackie's propositions. We believe, however, that on men like Darwin, and Tyndall, and Huxley, Professor Blackie is unnecessarily severe, and that he has not sufficient grounds for the assertion that they are altogether abandoned to that atheism which he calls first a "limbo of blind absurdity," secondly an "inane babble," and finally, as his spirit rises to the dignity of a peroration, "an unutterable idiocy." Professor Tyndall himself avows that he is ignorant of Darwin's views of creation; and if he does not know them who can be expected to do so? But it may be found that Darwinism does not necessarily involve a retirement into Professor Blackie's limbo, by reference to the concluding words of the "Origin of Species," where Darwin says—"There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been and are being evolved."

## THE WEEK.

### TOPICS OF THE DAY.

The abuse of gratuitous medical relief by persons not being proper objects of charity has recently been the subject of an inquiry by a sub-committee, appointed for the purpose, at the London Hospital, Whitechapel-road. The Committee have come to the conclusion that many such persons did apply, and receive medicine and advice, which they ought to obtain for payment elsewhere. The remedy the Committee suggest is, that on all letters given by governors to applicants it should be stated that the applicant was really unable to pay for advice, and that they were known personally to the governor, or nominated by some individual of public credit and acknowledged respectability. It has been decided to try the effect of this plan for twelve months from January 1 next. Something more stringent and definite than the carrying out of this suggestion will be required to correct the out-patient abuse. General rules should be adopted by hospitals and dispensaries with reference to the matter.

One of those appalling railway accidents which are now so frequently occurring has just taken place on the Great Eastern Railway. Like most of these calamities, it would seem that it was owing to preventable causes, not probably to mere accident. The number of persons who are killed or injured on railways bears but a small proportion to those who succumb to disease and death from the neglect of hygienic precautions and remedies. In both cases, however, the moral applies with equal force. These disasters are preventable and not prevented. In either of the cases the authorities ought to be held rigidly responsible; and that some means will be taken to effect this we think there can be no doubt. About fifty persons have been maimed, wounded, and some probably injured for life, and upwards of twenty lives have been sacrificed, from what must be regarded as a preventable "accident."

The time for the renewal of licences for the metropolitan slaughter-houses has again come round. The new Act, now in operation, requires fourteen days' notice to be given in all cases of application for the renewal of licences, and seven days' notice of objections, before the hearing. This new Act we feel called upon to characterise as the result of legislation guided with the object of protecting the vested interests of the trade. Private slaughter-houses are, undoubtedly, a nuisance. They often actually adjoin private dwelling-houses, and under the best regulations their general condition must always be offensive and objectionable. They must sooner or later be abolished, and public abattoirs established. Moreover, as was shown in evidence adduced before the Committee of the House of Commons, public abattoirs, where provided, have tended to lower the price of meat. Under the new Act, no doubt, more stringent powers are conferred for their supervision. Inspectors of the Privy Council can enter slaughter-houses and knackers' yards for the detection of disease. But legislation on private slaughter-houses short of abolishing them altogether is very inadequately and unsatisfactorily dealing with a vital sanitary question.

The statistics of vaccination at Ipswich are very satisfactory. Mr. W. B. Ross, the Vaccination Officer for the Ipswich Union, is evidently "the right man in the right place." Mr. George Sampson Elliston, the Medical Officer of Health, in his first annual report on the borough and port for the year ending June 30 last, accords thanks to Mr. Ross, through whose exertions Ipswich has become a first-class vaccination district. The statistics for the past six years and a half show that there were registered since December 31, 1867, to June 30 last the births of 7665 children. Of these 6691 were vaccinated, 761 died before vaccination, 179 removed or were otherwise not to be found, 21 had small-pox or were certified as insusceptible, 8 were certified as unfit, and vaccination postponed accordingly; —total, 7660; remaining in default, 5. The first-class grant of £75 14s. was awarded by the Local Government Board last year to Mr. Ross. Mr. Elliston observes—"It is satisfactory to know that with ordinary precautions an outbreak of small-pox, such as raged in Ipswich during the year 1872, and which cost the town between £2000 and £3000, is not at all likely to occur again."

It was noticed during the last three months of the summer of 1873 that there was a great falling off of the students at the University at Berlin. The same diminution has again been observed during the six winter months of 1873 and 1874. The *Cologne Gazette*, commenting on this falling off, remarks that hitherto, as a rule, the University medical courses were more numerously attended than the others. It seems, however, certain that the number of students of medicine has sensibly diminished, one professor having 100 fewer students in his class than he had in the preceding year. In short, the number of students has reached its lowest point in comparison with former years. The University is now outstripped in numbers not only by that of Leipzig, but also by the University of Göttingen, which now contains 1000 students.

## NAVAL AND MILITARY ITEMS.

Sir Alexander Armstrong, K.C.B., Director-General of the Medical Department of the Navy, has been for some time engaged on the annual inspection of the home naval stations. By the last reports he was inspecting at Haulbowline, near Queenstown, Ireland.

Surgeon-General C. A. Gordon, M.D.,C.B., is expected to embark almost immediately for India, to assume the duties of Principal Medical Officer of British Troops in the Madras Presidency. Dr. Gordon's last tour of foreign service was in India, he having returned to this country from Bengal in 1868.

We hear that Deputy Surgeon-General H. M. Fraser, M.D., who has retired on half-pay, has been appointed to take medical charge of the Military Prison at Greenlaw. Dr. Fraser has completed a period of twenty-five years' service on full pay, during which he has seen much service in India, including the Indian Mutiny campaign.

## THE EPIDEMIC AT THE ROYAL PATRIOTIC SCHOOL, WANDSWORTH.

The epidemic commenced on August 31, and ceased on September 8. The first death was on August 31, the second on September 1, and the other two on September 5. Fifty-two cases in all were admitted to the infirmary from August 31 to September 8, and no case has been admitted since that time. They were all brought to the infirmary with precisely the same symptoms, only some were more severe than others—a perfect state of collapse, with livid face and extremities, and as cold as possibly could be, without any rigors. With one exception, there was no sickness or diarrhœa; but all had great pain and tenderness to the slightest touch anywhere about the abdomen. The only instance of sickness and diarrhœa was in the last fatal case—the one in which Dr. Anstie assisted in the post-mortem; and in this there were three distinct rice-water evacuations. There were no cramps in any case. In the four fatal cases, the post-mortem revealed simply an intense degree of inflammation of the peritoneum, the mucous membrane of the stomach and intestines being perfectly healthy. There were many patches of creamy lymph scattered over various parts of the peritoneum. The whole four deaths were very sudden, one girl being ill only four hours, two others about twenty-four hours, and one about fifty-three hours. Every case admitted showed signs of decided peritonitis; all occurred suddenly. There appeared to be little or no warning, and the majority of cases recovered after two or three days' treatment. The only apparent cause for this singular and fatal outbreak of disease is thus referred to by Mr. St. Aubyn Hawken, the able medical officer to the school in question, in a letter to the *Times*:—

"The water supply of every part of the building was traced, and it was found that, from some unaccountable cause, one lavatory, where the girls sometimes drink water, was not connected with the tanks, as every other part of the building was, but drew its supply from a cistern in the laundry which was only intended for washing purposes, and was filled by water from a large rain-water tank, which from the long drought had recently been brought low. Unless from a desire on the part of the plumbers to save themselves trouble at the time of the first fitting of the building, it is impossible to conjecture why this lavatory was thus connected with the laundry, as within a few feet there was a supply of water from the tanks. Immediately the discovery was made the connexion with the laundry was severed, and an improvement in the health of the children was at once manifested. Dr. Anstie was here on the Monday after the important discovery had been made in the morning, and he then said our trouble would soon be over. From that time no case of the same nature has occurred, and those who had been previously

affected have been restored to their usual state of health; in short, the epidemic has entirely ceased, and the infirmary wards are at this moment in their usual condition."

On the other hand, the first reports of Dr. Anstie's illness and death, which appeared in the daily papers, ascribed it to sewage poisoning. It was asserted that the whole sewage of the school was received into certain pits covered loosely with boards, whence it was pumped up to irrigate the garden. Hence it was believed that the school and grounds were pervaded with sewer-gas, which had caused the illness of the girls, and that Dr. Anstie had suffered from exploring this cause of contamination.

"A few days before his lamented death, Dr. Anstie told me of the investigation in which he was engaged, and drew a rough diagram to illustrate the state of the playground at the schools—a state which he then thought was sufficient to explain the sickness among the pupils. According to this diagram the playground is a quadrangle, excavated below the level of the surrounding soil, always damp, and entered by descending a flight of steps on any of three sides. On the fourth side there is a roof, covering in a portion of the ground for use in wet weather, and under the roof, in the centre of the boundary wall on this side, an opening leading to a row of latrines, which are otherwise entirely enclosed. It follows from this arrangement that the gases generated by the decomposition of the contents of the latrines were poured undiluted into the covered part of the ground, where, in wet weather, the children were likely to be thickly congregated. Dr. Anstie told me that this arrangement was about to be altered forthwith; but it then seemed to him to be the probable cause of the outbreaks of disease. He added that the architect had originally made provision for filtering the water supplied by the Lambeth Company, but that the filters had not been cleaned from time immemorial, that they were full of sludge, and that they fulfilled only the superfluous function of rendering the water dirtier than it was before. He could hardly have arrived at the knowledge which he imparted without such personal investigation as must have exposed him to at least the same risks as the children themselves were daily called upon to incur."

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### CHARGE AGAINST A PUPIL TEACHER OF CAUSING THE DEATH OF A SCHOOLBOY.

A PUPIL teacher in a national school in Marylebone has been committed for trial by the magistrate at the Marylebone Police-court on the charge of having caused the death of one of the scholars. It seems that on Friday morning (September 4) the deceased went to school as usual; though whether "as usual" means in his usual state of health, or at the usual time, is not stated. At half-past eleven a pupil-teacher was seen to strike him on the left side of the head; the blow caused the boy to fall backwards against a rail in front of a wall. He seemed hurt, and shortly afterwards obtained permission to go into the yard, where he vomited. Here he was found by his brother, who carried him home on his back, when he complained of pain in the head. His mother, thinking he was suffering from biliousness, gave him brandy and put him to bed. He went to sleep, but in the night appeared to be dangerously ill, and, as the report states, died at one o'clock next day. The medical witness before the coroner deposed that the deceased died from compression of the brain from a blow or blows on the head; that at a post-mortem examination there were no marks externally on the head, but internally "there was some ecchymosis under the left frontal region, and an effusion of blood the size of a crown-piece from a blow. The right side of the head was in a similar condition, but to a larger extent. There was also an accumulation of pus in the interior, and the lateral ventricle contained more serum than usual. The brain-substance was natural, and the whole of the abdominal organs were healthy." After considerable discussion, the coroner's jury returned the following verdict:—"That the deceased died from compression of the brain from external violence, but how the violence was caused the evidence failed to show." The jury then commented upon the discipline of the school, and expressed an opinion that none of the assistant-teachers should be permitted to chastise the pupil. In the absence of any fracture or external marks of violence, and with the presence of pus within the cranium, it would be quite unreasonable to suppose that a blow upon the head, if such had been given only twenty-five hours and a half previously, could have been the cause of death. The exact situation of the pus, whether between the arachnoid layers or in the subarachnoid space, is a point of much importance in deciding upon the origin of the inflammation which produced it. If it occupied a position between the visceral and parietal arachnoid, its cause would no doubt be an external one, and the same probably gave rise to the effusion of blood; but the injury must have occurred more than twenty-five hours before the time of death. If, on the other hand, the purulent deposit was beneath the arachnoid or in the ventricles, its presence and the cause of death would in all probability be both quite unconnected with any external violence.

Mr. Christopher Heath and Mr. Julian Evans, who gave evidence on the part of the accused before the magistrate, declared that the post-mortem appearances described pointed to old disease, and not to recent injury. We hope, for the sake of the accused, that the medical witnesses at the Central Criminal Court will be of a high order.

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### PHILADELPHIA M.D.'S.

AT the Hammersmith Police-court, the other day, a Mr. Levy Farndon, of Bramley-road, Notting-hill, appeared to answer an adjourned summons at the instance of the Kensington Board of Guardians, for pretending that he was registered by law as a practitioner in medicine. It appeared that an order was issued from the court for a child to be vaccinated, and the defendant, who had been attending it, gave a certificate stating that it was not in a fit state. The certificate bore the signature of the defendant, with the letters "M.D.," and underneath them "Pa." The defendant produced in court a Philadelphia diploma, framed and glazed. It also appeared from the evidence of the mother of the child that the defendant told her that he was not a registered practitioner. Mr. Claydon, who appeared on behalf of the guardians, said he believed that advertisements were regularly published with reference to the sale of American diplomas, and that by sending £25 to one of the agents a diploma would be sent. Mr. Bridge thought the case ought to be taken up by the Medical Council. Mr. Claydon said the Council would not, as they had not any funds. The guardians said if they would not, they (the guardians) must for the protection of the poor. A bottle of medicine was supplied by the defendant, with the word "physician" upon it. The defendant, in reply to the magistrate, said he passed his examination in Philadelphia. Mr. Bridge said it appeared that diplomas were granted by some universities in America to persons who did not go there. In the summons before him the defendant was charged with unlawfully pretending to take the title of a physician; but the statute applied to a person pretending to be registered under the Act. It was not an offence for an unqualified person to be a practitioner; but it was for persons to pretend that they were registered. In this case the defendant did not pretend that he was registered; on the contrary, he told the mother that he was not. The certificate was of no value, as the parent was obliged to have the child vaccinated by a registered medical practitioner. The Board of Guardians in future should place a register in the hands of the officer, who could ascertain whether a certificate was of value or not. It was most important to the public to know that persons could obtain diplomas without passing an examination, as it would put them on their guard. He dismissed the summons without costs. Mr. Shattock, the officer appointed under the Vaccination Act for Kensington, applied to the magistrate to state a

case for the opinion of a superior court. Mr. Bridge said he would grant a case. We only hope the parish authorities will keep to their intention.

### UNSANITARY SUBURBS.

In many ways the inhabitants of those regions where London is still growing are most unfortunate. They are of the metropolis, but not in it. Their eyes and noses are perpetually assailed. Lines of skeleton houses, unfinished roads, and little or no drainage are their lot, especially on the northern side of London. The sanitary condition of Edmonton has long been scandalous, but it seems that even this is surpassed by the condition of Harrow Weald, of which a correspondent of the *Daily News* writes as follows:—

"As the traveller from London enters Sudbury, on the high road to Harrow, less than a mile from that classic town, and included in Harrow parish, there is a vile bridge known as 'Close-nose Bridge,' where he who passes over it is glad to cover up nostrils and mouth. The passenger must go through the stench. There is no evading the bridge. If Sir William Harcourt, who objects to 'grandmotherly government,' were to stand upon it five minutes, he would invoke his grandfather to do something to abate the perennial offensiveness of that place. On speech days at the schools you may see duchesses hastening to witness the Greek declamations of their sons cover their faces with their handkerchiefs as they approach this highway abomination. Lord Palmerston, who cantered over it for years, knew it well, and was always, after his wont, provided for the emergency. His famous advice to the saints of Edinburgh to look to their sewers was, I doubt not, suggested by his experience of that detestable spot. All the country for miles around Harrow is dotted with stenches. The pallid stroller, seeking the fresh air, cannot cross a field but some noisome effluvia makes him sick or drives him back. Even at Wembley Church gate he meets it. Doctors who traverse the villages on feeless errands of mercy to poor typhoid patients tell you that there are many settlements where there is no well, and the unhappy inhabitants have to seek culinary water from the ditches, which are mostly mere cesspools. There is no drainage anywhere. Ashantee is not more fatal to health than many of these places to the dwellers therein. In the few houses in Sudbury where water is supplied from a well every cistern is connected with a cesspool. Magistrates, clergymen, gentlemen dwell thick about. They know the state of things and do nothing. No complaint moves them, and nobody can be found to put sanitary laws (if there are such things applicable there) in force. People would imagine that the presence of a famous seat of learning in the midst of this murderous pollution would be some protection for the poor; but in the very town where these proud schools exist there is not a single public bath, and the sick or the cleanly disposed must go nine miles before they can find the means of medicinal or decent ablution."

### THE METROPOLITAN FREE HOSPITAL AND THE HOSPITAL SUNDAY FUND.

Mr. Joseph Fry, chairman of the Committee of Management of the Metropolitan Free Hospital, writes to the *Times* of Wednesday a letter denouncing the authorities concerned in the distribution of the Hospital Sunday Fund for their award to the hospital with which he is connected. Last year the hospital received £95 odd; this year only £76 5s. Both sums seem altogether inadequate, in the eyes of Mr. Fry and his colleagues in the Metropolitan Free management, insomuch that Mr. Fry waxes very angry, and uses language of a rather warm tint. Mr. Fry invokes his name and family history as authorities on his side; on the other, the Distribution Committee have but to invoke the recent history of the Metropolitan Free Hospital, and the facts recorded against it. These facts, cited in the *British Medical Journal* and in the *Westminster Review*—facts, too, which have never, we believe, been called in question—are sufficient to condemn the management of any hospital, whoever presides over it, and however noble his family history may be. These facts are scandalous in the extreme, and the Distribution Committee would not have been doing their duty had they not taken them into consideration. Even Mr. Fry in his letter is made, probably unwittingly, to convey what we conceive to be a wrong impression. He talks of the 40,000 poor patients annually relieved at the Metropolitan Free: is Mr. Fry quite sure that these numbers actually represent patients, or do they only represent visits? Confidence is a plant of slow growth, and when once it has been rudely shaken it takes much time and great care to enable it to take firm root again. Our own impression is, the hospital has received £76 5s. too much.

### THE MEMORIAL TO SIR JAMES Y. SIMPSON.

When the subscriptions to the Simpson Memorial Fund had reached the handsome sum of nearly £6000, it was determined that part of the money should be expended in providing a statue of the distinguished physician and accoucheur. It was resolved also that the balance of the fund should be handed over to the Maternity Hospital on the condition that another sum equal to it should be subscribed, and that the money should be expended in the building of a new hospital which would perpetuate the name and fame of Simpson. Though the directors of the Maternity Hospital accepted the balance of the fund on the conditions mentioned, it does not seem that they are yet prepared for the erection of a new hospital. We hope, however, that they will soon be able to show their participation in the scheme to perpetuate the memory of Professor Simpson. At present they can only be too well aware that their hospital is not what it ought to be, when they consider the magnitude and increasing importance of the medical school which it is required to a certain extent to subserve and supplement; though we feel assured that they are anxious to do their utmost to honour the name of a former benefactor, and extend their own hospital capabilities. The sculptor's part of the Simpson Memorial appears to be in a more advanced stage. Mr. Brodie's part of the work is nearly completed, and after the finishing touches his colossal model of Simpson's statue will be sent to London to be cast in bronze. The statue will be about twice the size of life. The requirements of art rendered it necessary that Mr. Brodie should pese Simpson in a sitting posture. He is represented in professorial gown, seated, and in the act of lecturing. The general effect seems to be exceedingly striking, and gives promise that the completed work will be worthy of the great man whom it is intended to represent and honour. The same sculptor is preparing a bust of Simpson to be placed in Westminster Abbey.

### THE CONSISTENCE OF CONNECTIVE TISSUE.

The matrix of connective tissue has hitherto been generally regarded as possessed of so much consistence as to deserve to be called solid, in contradistinction to the diffluent plastic protoplasm of which wandering or pus-cells are composed. The familiar appearance of fibrillation which a portion of tendon, for example, presents under the microscope, gives the impression of a firm, inelastic, resisting structure; and even the cornea may be seen in an ordinary section to be composed of lamellæ, and may be teased into elemental fibrils. The passage of wandering (pus) cells through such a tissue, and the consequent formation in it of inflammatory foci, have been for several years easily accounted for by histologists on the supposition that the moving particles of protoplasm find their way along the lymphatic canals which exist in the matrix around the fixed or proper connective tissue-cells. Certain researches by Dr. G. Armauer Hansen, of Bergen (*Virchow's Archiv*, vol. lix.), would appear to compel a considerable modification of these views. The particular form of connective tissue selected by Dr. Hansen for investigation is one whose structure he has already most carefully studied, both in the normal and inflamed state—namely, the cornea,—having added much to our previous knowledge of its lymphatic canals, the wandering cells, and the formation of pus within it (*Stricker's Jahrbuch*,

1871). He now urges that the exact correspondence of the lymphatic canals with the surface of the protoplasm within them—that is, the absence of any visible space between the matrix and the cells, and the occurrence of this correspondence, whether the cells be swollen or shrunken, or otherwise altered by inflammation,—is evidence of the great plasticity of the matrix. Further, he calls attention to the fact that the wandering (pus) cells in the inflamed cornea lie in spaces which are manifestly not in communication with the lymphatic canals surrounding the fixed cells. Evidently the pus-cells are embedded in the matrix and not in the lymphatic canals at all. That this is the case is rendered more probable by an observation of Dr. Hansen's, where he has watched a wandering cell in the living cornea as it worked its way slowly through the tissue, like a diatom through water, and left as little of a cleft behind it as does the latter. The route which such a cell pursues may have no relation whatever to the lymphatic canals. If these observations are correct, what can be the consistence of the matrix, which yields to a piece of moving protoplasm and closes behind it when it has passed? Surely so little that it would almost deserve the name of diffluent or semi-fluid.

### DR. BEVERLEY ON HOSPITAL OVERCROWDING.

In a communication to the *Norwich Mercury* of September 12, Dr. Beverley makes the following remarks:—

"Of the impaired ventilation of the Hospital, caused by the *overbuilding*, enough has been said—it is patent to all. A word or two more on the *overcrowding*, and I have done. By overcrowding I do not mean the mere aggregation of numbers of sick persons, but the accumulation of the wounded, accidental or operative, to an extent beyond the capacity necessary for the treatment of such cases. Thus the two conditions named by Erichsen have been forfeited—*i.e.*, the cubic space of air necessary for the well-doing of each surgical patient has been brought below the healthy average, and the ventilation greatly impaired by the overbuilding, so that although the cubic space has been of late augmented, this will remain comparatively ineffectual whilst the latter—*i.e.*, the ventilation—continues to be so defective. To prove this I have but to produce the following figures, which show the great increase of the number of surgical cases *with wounds*—accidental and operative—during the last ten years, compared with those of the previous ten years:—

| | | | | | |
|---|---|---|---|---|---|
| From | 1854 to 1863 | there | were | 1666 | surgical operations. |
| „ | 1864 to 1873 | „ | „ | 2513 | „ „ |
| „ | 1854 to 1863 | „ | „ | 359 | wounds of all kinds. |
| „ | 1864 to 1873 | „ | „ | 779 | „ „ |
| „ | 1854 to 1863 | „ | „ | 271 | compound fractures, burns, and scalds. |
| „ | 1864 to 1873 | „ | „ | 491 | „ „ |

In other words, during the first decade, 1854 to 1863, there were 2294 surgical cases with wounds; in the last ten years there were 3783, the number of beds and general accommodation being as nearly as possible the same. Does not this prove an amount of surgical overcrowding quite sufficient to propagate that fatal form of septic disease, pyæmia, of which there is no record in the Hospital Reports until the year 1862, and which has been (with the exception of 1870) present ever since in varying proportions, showing an excess whenever there has been either an unusual number of surgical or accidental wounds, as in the two great pyæmic years 1868 (seven cases) and 1873 (twelve cases), when there were more than ninety of such cases above the yearly average in each year."

### THE WORKHOUSE SYSTEM.

The Guardians of the City of London Union, at a recent meeting, had before them a communication they had received from the Local Government Board, intimating that the central board contemplated a classification of the metropolitan workhouses, appropriating some to aged women, and others to aged men, with separate establishments for able-bodied and vagrant poor. With this object they have notified alterations in regard to the workhouses of the City of London Union at Bow, Homerton, &c.

### BONE ABSORPTION BY GIANT-CELLS.

The "line of demarcation" in a gangrenous limb, and the "separation of a sequestrum" in a necrosed bone, have been subjects of investigation to surgical pathologists for many a year. John Hunter himself almost completed the account of the separation of a piece of dead bone when he described the gradual deepening of the groove between it and the healthy portion, the presence of soft vascular tissue in the line of separation, and the existence of small circular hollows upon the exfoliated surface of the sequestrum, which exactly fit the granulations on the living bone. Quite recently the exact histology of this vascular layer, and of these "small circular hollows," has been investigated; and if we have not even yet been informed how absorption of bone is actually effected, we have at least been made acquainted with various steps in the process. Kölliker has been one of the principal contributors to this investigation, and his researches have been worthily followed up by Dr. Alex. Morison, of Edinburgh, who studied under him (*Pamphlet*, 1873). Kölliker showed that absorption in the normal course of the development of bone produces small cavities, and that these are filled, without exception, with giant-cells, or myeloplaques—with one, a portion of one, or several. He believed that these giant-cells arise from osteoblasts (the cells from which bone-tissue is developed), and that they are the agents by which bone (and tooth) are normally absorbed. Morison's investigations go to support this description and opinion. He has seen intermediate forms between osteoblasts and giant-cells; but he is inclined to believe that the latter may also arise by the aggregation of the nuclei of embryonic connective tissue in the spaces in the edge of bone which is being absorbed. It is possible also that the giant-cells may grow by proliferation of the connective tissue in the wall of a capillary. Whatever their origin, the presence of these peculiar cells in the line of absorption of bone seems to be now fairly established, and the idea may be entertained that their function is a destructive one. When separation is complete, they would appear to be succeeded by constructive or formative cells, which arise from embryonic connective tissue around them.

### THE WATER SUPPLY OF LONDON, ETC.

From a report prepared by Dr. Frankland, F.R.S., on the chemical examination of the waters supplied to the metropolis by the several water companies during the month of August, it appears that, taking the amount of organic impurity in an equal volume of the Kent Company's water as unity, the proportional amount of this impurity in an equal volume of water supplied by each of the other metropolitan companies was—New River 1·3, East London 2·1, Chelsea 2·3, West Middlesex and Grand Junction 2·4, Lambeth 2·8, and Southwark 3·0. The water delivered by the Grand Junction Company at Lancaster-gate, Hyde-park, on August 1, was "slightly turbid and contained living organisms," whereas the waters supplied on that day by each of the other London companies was found to be clear and transparent. All evidence of previous sewage or animal contamination in the East London Company's water had again been obliterated by prolonged storage. The water supplied by the Kent Company from deep wells in the chalk, although showing a greater total solid impurity than the water of any of the other metropolitan companies, again contained the smallest quantity of organic matter. Dr. Hill, the Medical Officer of Health for Birmingham, has reported that the water supplied to that town was slightly turbid, and that the quantity of organic nitrogen continued to increase; and Professor Bischof, of the Andersonian University, Glasgow, states that the water supplied to that city from Loch Katrine was yellowish and opaque through suspended matter.

INJURIES TO PROFESSIONAL MEN IN THE NORWICH COLLISION.

As regards our professional brethren injured in the Norwich accident, Mr. Bransby Francis, surgeon, is suffering from fracture of ribs and thigh, and internal injuries. He is in such a state that it seems impossible for him to recover from his serious accident. Mr. Francis was the active manager of the excursions during the recent visit of the British Medical Association, and is one of the oldest and most respected members of the profession in the city of Norwich. Two younger members of it, Mr. R. Wentworth White and Mr. Charles Watson, received serious injuries, caused by the long-continued pressure of superincumbent weight in the form of the carriages under which they were buried—the one (Mr. White) for three hours and a half, and the other (Mr. Watson) for two hours and a half. Their escape alive was most marvellous. Mr. White has injuries to the shoulder-joint and back, and general contusions; as also has Mr. Watson, although to a lesser degree. The entire profession of the city attended almost in a body to relieve the sufferings and wants of the unfortunate sufferers.

IMPURE FOOD.

BAD air, overcrowding, impure water, and imperfect sewerage are amongst the prominent causes of disease and death, particularly in large towns. To these, recent revelations have shown that impure and unwholesome food may be added. The extent to which the sale of putrid meat and other articles of food is carried amongst the poor is scarcely to be credited. Recent cases of a very flagrant kind have occurred, particularly in some of the provincial towns. We regret to perceive that imprisonment is seldom resorted to as a punishment. A mere pecuniary fine, however large, does not meet the requirements of these cases.

TYPHOID FEVER AND MILK POISONING.

ONE of the medical inspectors of the Bradford Local Government Board has made an investigation into the outbreak and spread of typhoid fever in the township of Bierley-lane, near Bradford. Sixty-seven persons have been attacked since the beginning of April. The township consists of 87 houses. He found 38 of these received their milk from a dairy where the fever appears to have originated. Cases of fever had occurred in 23 of these 38 houses, while in only 11 of the remaining 49 had there been any fever. The inspector believed that the outbreak was traceable to the milk in the first instance, the spread of the disease being favoured by the bad sanitary arrangements of the district.

HOSPITAL OUT-PATIENT REFORM ASSOCIATION.

A LOCAL meeting in connexion with this Association was held on Friday evening last, at 28, Buckland-crescent, N.W. (Stephen S. Alford, F.R.C.S., in the chair), at which the following resolution was proposed by Dr. Ford Anderson, seconded by Dr. Joseph Rogers, and unanimously adopted:—"That, seeing that poor-law dispensaries have been established throughout the metropolis, whereby the wants of the indigent classes are fairly met, and that several provident dispensaries also exist, which, if properly supported, would meet the requirements of those above them, this meeting considers that the time has arrived when the out-patient departments of the London hospitals may be materially curtailed with advantage to the community, and therefore urges on the subscribers to such hospitals the advisability of supporting a reform in this direction."

HEALTH OF BRADFORD.

THE death-rate in the township of Bradford, near Manchester, has been during the last month as high as 41·8 per 1000. An epidemic of scarlet fever has prevailed in the district, to which this excessive mortality is ascribed, and which has been very fatal amongst children.

IRISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A MEETING of this Association was held on Wednesday, September 9, 1874, in the hall of the King and Queen's College of Physicians in Ireland, to consider the Public Health (Ireland) Act, 1874, and the position of the Irish poor-law medical officers in reference to it. The meeting, which was presided over by Sir Dominic Corrigan, Bart., M.D., was very largely attended. The chairman called upon the secretary, Dr. D. Toler Maunsell, to read the report, which was done. The report and statement of accounts were adopted. Dr. O'Leary, M.P. for Drogheda, proposed a resolution to the effect that the association expressed its general approval of the provisions of the Public Health (Ireland) Act. Dr. Whistler, of Bray, seconded the motion, which was carried unanimously. On the motion of Dr. O'Flaherty, seconded by Dr. Curtis, a vote of thanks was passed to the honorary secretary, Dr. Maunsell, and to the honorary treasurer, Dr. Speedy, for their services during the past year. A vote of thanks having been accorded the president and fellows of the College of Physicians for the use of the College hall, Dr. Whistler was called to the second chair, and a cordial vote of thanks to Sir Dominic Corrigan for presiding was carried by acclamation. The meeting then separated.

SOUTH DURHAM AND CLEVELAND MEDICAL SOCIETY.

AT the annual meeting of the above Society, held at the North Riding Infirmary, Middlesborough, the following gentlemen were chosen officers for the ensuing year:—*President:* J. W. Eastwood, M.D. *Vice-Presidents:* Robert Smith, M.D., and Charles Trotter. *Hon. Secretaries:* John Ellerton, M.D., and R. W. Foss, M.D. *Committee:* J. Farquharson, J. R. Fothergill, M.D., J. Hedley, H. Hind, E. Jackson, J. Laidler, D. C. G. Odlum, M.B., T. R. Pearson, M.D., and J. P. Sleightholme.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

THIS Society held its first meeting for the session 1874-75 in the Faculty Hall on the 4th instant. The following are the office-bearers for this session:—*President:* Dr. James Morton. *Vice-Presidents:* Mr. John Reid; Dr. D. Richmond, Paisley. *Council:* Dr. George Miller; Dr. T. D. Buchanan; Dr. R. Stewart, Coatbridge; Dr. James Scanlan; Dr. Alexander Patterson; Dr. James Dunlop; Dr. D. Taylor, Paisley; Dr. Robert Perry. *Secretaries:* Dr. Joseph Coats; Dr. Gavin P. Tennant. *Treasurer:* Dr. Hugh Thomson.

THE contractor of milk to the Abbeyleix Workhouse has been fined £10 and £10 costs for adulterating the milk supplied for the use of the paupers.

HEALTH OF SCOTLAND.—During the month of August last there were registered in the eight principal towns of Scotland the deaths of 2413 persons. This number is 40 below the average August mortality of the last ten years. A comparison of the deaths registered in the eight towns shows that during the month of August the annual rate of mortality was 17 deaths per 1000 persons in Aberdeen, 18 in Edinburgh, 22 in Paisley, 24 in Greenock, 26 in Leith, 28 in Glasgow, 30 in Perth, and 33 in Dundee. Of the 2413 deaths registered, 1134, or 47 per cent., were of children under five years of age. In Paisley, 33 per cent. of the persons who died were under five years of age; in Edinburgh, 34; in Greenock and in Leith, 44; in Aberdeen, 45; in Perth, 47; and in Dundee and in Glasgow, 51 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 758 persons, thus constituting 31·4 per cent. of the whole mortality. This rate was exceeded in Leith and Perth from the prevalence of scarlatina, and in Glasgow and Dundee from the combined prevalence of scarlatina and diarrhœa. Scarlatina continues the most fatal of the epidemics. The deaths from this disease, which had fallen from 214 during June to 175 during July, amount to 295 for August, being at the rate of 12·2 per cent. of the whole mortality. The towns in which this epidemic is most prevalent are Glasgow, Leith, Dundee, and Perth, where 12·0, 20·7, 25·3, and 30·3 per cent. of their respective mortalities resulted therefrom.

# THE NORWICH RAILWAY COLLISION.

(*From our Correspondent.*)

The unfortunate accident on the Great Eastern Railway, on Thursday, September 10, was attended with great loss of life, and brought also to the Norwich Hospital a large influx of accidents. The number of patients who received attention there amounted to twenty-seven, and a list of the injuries that were inflicted will show how heavily the institution must have been taxed to meet all the necessities of the emergency.

The fact that only one case required amputation gave greater opportunities, by a judicious division of labour, to attend to the wants of all the sufferers, and two hours sufficed to make them all as comfortable as could be expected.

It is singular to notice how much the injuries are confined to the head and lower extremities. There were no broken arms, with one exception, and but one case of broken ribs. Hot tea was plentifully served out to the sufferers, and gave great comfort. Stimulants were very sparingly administered. Two men and one woman have died, but the rest, up to the present time, are going on well.

*Males.*

John Betts, aged 22, of Norwich, fireman; fractured skull and thigh; died September 16.

Job John Hupton, aged 45, of Great Yarmouth, harness maker; fractured skull and jaw; died September 11.

John King, aged 24, of Cambridge, goods carman; scalds.

William Baker, aged 24, of Horsford, labourer; contusions; recovered September 11.

John Clarke, aged 6, of Ely, son of ticket collector; scalp wound.

Charles Betts, aged 3, of Norwich, son of fireman; scalp wound.

William Savage, aged 24, of Horsford, labourer; fractured leg, etc.

Henry Rudd, aged 24, of Norwich, warehouseman; fractured ribs.

William Stowers, aged 35, of Norwich, hawker; fractured ribs and severe injury of legs.

John Beart, aged 61, of Aldboro', Suffolk, draper; amputation of right arm, etc.

Frederick Walter Dendy, aged 25, of Redruth, solicitor; contusions; recovered September 11.

John Devonshire, aged 31, of King's Lynn, fish merchant; contusions; recovered September 11.

George Wright, aged 41, of Great Yarmouth, guard; scalp wound.

Robert Savage, aged 33, of Horsford, labourer; fractured leg.

Alfred Page, aged 44, of Sprowston, brushmaker; scalp wound, etc.

William Algar, aged 16, of Norwich, grocer's apprentice; fractured thigh and leg.

Alfred Meredith, aged 31, of London, compositor; fractured leg.

*Females.*

Susan Brown, aged 33, of Norwich, seamstress; compound dislocation of ankles; died September 15.

Rachel Clarke, aged 34, of Ely, wife of ticket collector; scalp wound.

Elizabeth Clarke, aged 8, of Ely, daughter of ticket collector; fractured skull.

Charlotte Coote, aged 40, of London, wife of warehouseman; compound fractured leg.

Jane Faulkner, aged 31, of Norwich, servant; fracture of both legs.

Sarah Gibbs, aged 35, of Norwich, housekeeper; fractured leg.

Elizabeth Margaret Baldry, aged 19, of Norwich, dressmaker; sprained knee; recovered September 11.

Sarah Wollastone, aged 21, of Norwich, dressmaker; fractured leg.

Elizabeth Smith, aged 24, of London, dressmaker; fractured thigh.

Susan Arbon, aged 49, of Arlessy, Bedfordshire, wife of a labourer; contusions of the head.

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Small-pox is at present prevalent in the northern district of the county of Mayo in consequence of inoculation.

REGULATIONS FOR

# ENGLISH AND OTHER FOREIGN PRACTITIONERS WHO DESIRE TO PRACTISE IN FRANCE.

In compliance with the desire of several correspondents, we print the official regulations of the French Government relating to foreigners who desire to practise in France.

That which foreign physicians wish for, but which they find it exceedingly difficult to obtain, is a "Decree" authorising them to practise without examination throughout the whole of the French Republic. This is most rarely granted, and can only be obtained by great personal or professional merit, or still better by political influence, public or private.

If a "Decree" cannot be obtained, authorising the candidate to practise as a physician, he may in some cases, if he hold a good diploma, as those of London, Edinburgh, etc., be allowed, without examination, to practise as *Officier de Santé* (corresponding to what we should call apothecary) in some one department, but nowhere else.

Should he desire to obtain the right to practise as a physician everywhere, then, failing a "Decree," he must submit to examination, either in the full form or in the mitigated form described in the following regulations. But he must bear in mind that a French examination is no trifle, and that the Professors of that highly cultivated and acutely logical people would require not vague, general, and (so to say) "practical" information, but knowledge of the exactest description, clothed in the French language, and agreeing with French views and French scientific formulas and modes of thought.

REGULATIONS.

"Foreign medical men can be authorised to practise in France in two different ways: either by Decree or by undergoing the necessary examinations at one of the three Faculties of Medicine—viz., Paris, Montpellier, or Nancy.

"The cases in which the authorisation to practise is given by Decree are of rare occurrence.

"The examinations are six in number, the final one being the public defence of a printed thesis.

"The subjects are as follows:—1. Anatomy and Physiology. 2. Internal and External Pathology. 3. Natural History, Natural Philosophy, Chemistry, and Pharmacology. 4. Hygiene, Medical Jurisprudence, Materia Medica, and Therapeutics. 5. Clinical Medicine and Surgery-Midwifery. 6. A thesis.

"A minimum residence of four years is required in the cases of students, during which time, besides following the regular curriculum at the Faculties, they must give proof of constant attendance at the hospitals.

"The total amount of the fees for the diploma, or for the authorisation by Decree, or after examinations, is about 1260 francs.

"The preceding observations apply to the degree of Doctor of Medicine, which entitles the holder to practise the profession throughout the whole French Republic.

"There is a diploma of an inferior grade—that of *Officier de Santé*—which limits the practice to the department in which it is conferred, and the examinations are only three in number.

"When the candidates possess degrees obtained at Universities or Faculties of a high order—such as London, Edinburgh, or Dublin,—the four years' residence and the six separate examinations are in some instances dispensed with, and the candidate is required to undergo only two practical examinations (one being in writing, and the other oral in public on appointed cases in a hospital), and to defend a thesis.

"In some cases the degrees obtained in the above-named British Faculties are admitted by the French Council of Public Instruction as equivalent to the diploma of *Officier de Santé*, thus enabling the holders, without examination, to practise in the department where they reside, but not beyond. Such cases have occurred in Boulogne, Nice, Cannes, Pau, etc.

"The course the candidate should pursue is to address an application to the Minister of Public Instruction, forwarding to him at the same time his diplomas and certificates. This application is referred by the Minister to the Conseil d'Instruc-

tion Publique, the medical section of which reports thereon to the Minister, who then either rejects the petition, informs the candidate that he must undergo the necessary examinations before he can obtain a licence to practise in France, or, in very exceptional cases, intimates that a Decree will be issued giving him the right to practise without being required to pass any examinations.

"It must be added that French students, before they can take a degree of Doctor of Medicine, must have previously graduated at a French University as Bachelor of Letters and Bachelor of Sciences; but these two degrees are generally dispensed with in the case of foreigners admitted to pass medical examinations.

"Persons practising without legal authorisation are liable to fine and imprisonment."

## JOHN HUNTER.

As everything relating to this great man is always interesting to the profession, we have great pleasure in publishing the following address to the Governors of St. George's Hospital, of which institution Hunter was surgeon from 1768 to 1793, when he suddenly expired in the board-room, or rather the adjoining room, to which he had retired to conceal his deep emotion.

The original is in the possession of Mr. Charles Hawkins, to whom we are indebted for permission to publish it.

"As some of the noblemen and gentlemen present may not have been informed that Mr. Hunter has declined being a candidate for supplying the vacancy occasioned by Mr. Middleton's resignation, he thinks it his duty to inform this Court that, for some years last past, with the advice and at the desire of several of the governors, he has intended offering himself as a candidate upon the first vacancy; that when Mr. Middleton and Mr. Hawkins applied to the governors for being allowed assistants, he had an opportunity of declaring himself; that when Mr. Middleton resigned, a vacancy being declared and a day appointed for the election, his friends thought that a proper occasion to make his intentions more generally known, and with that view to engage in soliciting votes. They understood that this was the custom in elections at all the old and great hospitals of this metropolis; that upon such occasions, candidates would offer themselves and ask votes, not only without expectation, but knowing that it was impossible they should be elected: in such situations their utmost endeavours aiming only at making their intentions known, and of procuring such friendship and interest with the governors as might serve them effectually upon another occasion.

"With this view only, Mr. Hunter's friends set out in the canvass, asking votes and interest *now*, or, if engaged, *for the next vacancy;* and though they meet with more success than could have been expected, their intention was to have declined standing the poll, and to have given public notice thereof before the day of election to prevent all unnecessary trouble.

"But in the space of a few days of canvassing, from some delicacies of situations and from the natural eagerness of people when engaged in any sort of contest, it was thought advisable for the peace and prosperity of the charity to put an immediate stop to the asking of votes at this election, and to leave the field clear for one candidate who was thought by many to stand in such a delicate situation that asking a vote for any other implied an attack made upon him or upon his friends.

"Mr. Hunter further begs leave to take this more public opportunity of thanking those noblemen and gentlemen who have honoured him with their protection and interest upon this occasion, and of begging the votes and interest of them and of all the governors upon the next vacancy.

"His friends flatter themselves that his and their conduct will not be disliked by the sincere and disinterested well-wishers to the charity.

"Delivered and read at the General Court, January 4, 1765."

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THE Kilrush Board of Guardians heard a charge of neglect and of non-attendance to dispensary duties against one of their medical officers. The explanation furnished, however, was deemed satisfactory.

## SANITARY APPLIANCES AT THE INTERNATIONAL EXHIBITION.

WE have been compelled to defer to this somewhat late period a descriptive account of the sanitary apparatus at the International Exhibition, not only from the pressure on our columns during the Parliamentary season, but because at our visit in May last the working models for sewage purification were not sufficiently near completion to allow of our making any comments upon them. Visitors to this department will have to pass through the South-West Corridor by the passages leading from the eastern side of the Horticultural Gardens before arriving at the Garden of the Western Annexe, where the sewage works in miniature have been erected. On either side of one of these passages the casual visitor will notice some most uninteresting drain-pipes, filters, and traps exhibited by Messrs. Doulton, Jennings, and other sanitary engineers; these we shall describe later on. Passing through Mr. Frank Buckland's interesting Museum of Economic Fish Culture, the West Garden is approached through a passage from the stove department. Here on the left is a shed erected by the Carbon Fertiliser Company for the purpose of illustrating a method for the purification of house-slops, storm-water, etc., by filtration through a series of tanks partly filled with loose gravel. the final tank containing burnt clay, gypsum, and charcoal, The water thus purified can be used again for washing purposes, etc. The charcoal can be purified by chemical means, and used again indefinitely; this they denominate "cycle charcoal," on account of its endless use, or it may be ground finer, and used as manure to fertilise the land. The charcoal used is made from seaweed. The Company provide for the disposal of house-sewage, urine, etc., by dry closets charged with charcoal. The authorities at Oldham and other provincial towns have constructed extensive sheds for carrying out this principle, and it appears to be working well. The main objects effected by it are the deodorisation, disinfection, and decomposition of all refuse and drainage by charcoal, the conversion of it into a valuable manure, and the discharge of the effluent water into a reservoir for subsequent use, or into a river sufficiently pure not to pollute the stream. The Company propose to erect their filter-beds under the roadway of streets, to partially purify the effluent water, and to complete the process at the filtration works erected in a convenient situation. They are ambitious enough to hope for the ultimate repeal of the Act of Parliament requiring the removal of London sewage by the Main Drainage scheme to Barking, etc., where it is discharged into the river. There can be no doubt that to mix storm-water, boiler-water, and house-drainage together is most clumsy and unjustifiable from an economical and sanitary point of view, but how best to provide for the speedy removal of sewage and rain-water separately in large towns is a problem yet unsolved.

It is not generally known that the drainage from water-closets constitutes but a very small proportion of the fluid discharged by the main sewers; consequently the great bulk of sewer-water is purposely tainted by the admixture of excrementitious matter, by which the area for the distribution of sewage-gas is greatly increased; and not only that, but in consequence of the large quantity of boiler-water which is emptied into the sewers of large towns, the sewage becomes heated, and this gives rise to the very offensive vapours issuing from the street gullies, so visible in frosty weather.

This Company propose to utilise fæcal deposits by mixing them with charcoal. Although dry closets are very useful for isolated dwellings and villages where the water supply is deficient, it is not desirable to carry out this system in large towns. It is not generally known, too, that our main sewers are constructed much larger than necessary, so as to allow the men to walk through them for the purpose of cleansing them, breathing at the same time a respirable air. It would be very simple to construct a separate conduit for excremental sewage inside the main sewer, and if extra flushing were required let this be done by diverting the storm-water into it when necessary. Works could be erected at various situations to intercept either the comparatively innocuous storm- and boiler-

water or the excremental sewage for the purpose of purification, filtration, etc., the storm-water being allowed to pass directly into the river.

Some of our northern towns, as Manchester, have been so pinched for water during the past dry season that the authorities have been compelled to limit the supply.

Three other models for utilising sewage are exhibited in this department—one by the Phosphate Sewage Company, for the precipitation of the nitrites, etc., by combination with phosphate of alumina. The water passes through three glass tanks, and is transferred to another tank where fish are kept alive.

The next is a small model, by Mr. Bailey Denton, to show the intermittent downward filtration of sewage through arable land. The sewage of Merthyr Tydvil is disposed of in this way, and the system is found to be working very well. The Court of Chancery obliged the authorities to desist from polluting the River Taaf, and thus compelled them to adopt some means of purifying their sewage. Mr. Denton's system is only intended for private dwellings or small towns, as he does not arrange for the solid constituents to be distributed over the land; these are arrested by straining the sewage through zinc gauze. The advantage of this process is that a comparatively small piece of land is required—only five acres for 12,000 people,—and this would be sub-divided into four sections, so that each portion should rest for eighteen out of the twenty-four hours (varying with circumstances), and in this way it would at no time become unduly saturated. The ground is selected with a convenient fall, and the soil drained to a depth of five or six feet, so that the sewage-water must pass through this depth of soil before being purified.

General Scott's plan, which is at work at Ealing and is a precipitation process, is not calculated for large towns, as the sewage requires certain treatment, such as churning and retention in tanks, for the purpose of precipitation with lime salts added in fixed proportions for combination with the ammoniacal salts of recent sewage.

This completes our description of the models for disposing of the drainage of towns. We shall in a future article describe various appliances for intercepting the sewer-gases, for economising water, etc.

## NOTES ON FOREIGN HOSPITALS AND SCHOOLS OF MEDICINE.

### No. IV.—LEIPZIC.

#### 1. The University and Pathological Institute.

The Medical School of Leipzic is rapidly becoming one of the most important in Germany, or even in Europe. This opening statement may to some appear remarkable, for are not the University of Leipzic and its medical faculty of sufficiently venerable age to have established their character long ago, and taken their definite place among their rival sisters? Undoubtedly they are; but it must not be forgotten that neither the character nor the position of a university is settled for any length of time. On the contrary, the reputation and prosperity of its several departments are constantly fluctuating; its success is as uncertain as are the fortunes of nations; and while at one time the place may rise into prosperity (thanks to the greatness of its ruling spirits), at another time, and that perhaps speedily, it may sink into monotonous mediocrity and neglect, or even disrepute. The chief cause of this apparent fickleness of fortune is to be found, as we have just indicated, in the variable character of the professors. One illustrious name will raise or save, or even make, a school, and the presence of several great luminaries at a university will spread its glory far beyond the boundaries of the country which it adorns. Who does not know something of the palmy days of the Vienna School of Medicine, when Rokitansky, Skoda, Hebra, Oppolzer, Brücke, Billroth, Hebra, Arlt, Sigmund, Meynert, and a host of others were all actively at work, and might be listened to every hour in the long working-day in the Allgemeine Krankenhaus and its neighbourhood? And yet some of us are not too young to remember the rise of that school, while already we cannot blind ourselves to its most serious decline. Even so the matter stands in Northern Germany: one university after another comes to the front, to be replaced, after its day is over—for a time at least,—by a more successful rival. We believe we are right when we say that the University of Berlin, which has long held the honourable place of leader among the working and teaching schools of medicine in Germany, is at this moment being outstripped by its great sister in Saxony. The cause of this turn in the wheel of fortune is more complex than in some other instances. Probably the late war has much to do with it. Berlin has become a wealthy and luxurious city; gold is cheap, and food and lodging are dear; and so the "poor German student" who has not shared in the indemnity must go to less expensive quarters for his learning. What other influences may possibly be at work in driving men from Berlin we are not prepared to state; but that the men have been going is proved by the comparatively empty dissecting-rooms and clinics; and Leipzic, among other places, is profiting by the migration. But we must not occupy more of the valuable space allotted to our "Notes" with general remarks, for we have many particulars to furnish about Leipzic, and much ground to cover. Neither shall we attempt to give expression to the feelings which fill a traveller when he finds himself in this city of books and learning. The University stands prominently forward in the Platz, a huge plain house with cold dark passages, and colder-looking lecture-rooms opening out of them, apparently by the score—for the University of Leipzic possesses more than 100 professors. But we, who are on a professional tour, search in vain for science or sickness here. We are directed to the Waisenhaus Strasse, on the outskirts of the town, for all that relates to our profession; and, in truth, when we reach the spot we are not disappointed. We find that a road in the midst of gardens is gradually being built into a street, and that when the plan is completed medicine and the allied sciences will occupy it from one end to the other. On the east side, and in order, will be the Foundling Hospital, the Physiological Institute, the Chemical Institute, the Hospital, and the Pathological Institute, and opposite them the Anatomical Institute, the Lying-in Hospital, and the Physical Institute, with open gardens between. Truly medicine and the physical sciences have outgrown the sister sciences of philosophy, literature, and history, as well as theology and jurisprudence, and founded separate settlements which far outstrip their venerable parent. There is, indeed, a street of buildings devoted to medicine and its allies; and here within a short range one may examine in succession the various institutes and establishments which have just been enumerated. One may feel somewhat inclined to question the advantage, to some of the inmates, of the proximity of so many and so various buildings. One observes that the Hospital stands between the Pathological Institute and the Chemical Institute; and that the anatomical rooms are next door to the Lying-in Hospital. But there is no real crowding; each building stands in its own grounds, and the whole neighbourhood is open, and abounding with gardens. We shall now attempt to describe in order the constituent parts of this magnificent group. We propose to enter chiefly into the details of arrangement of the oldest and more famous of these—the Physiological, Chemical, and Pathological Institutes, and of the Hospital. The other buildings are for the most part quite new, and some in fact not yet completed.

In the course of the following remarks frequent reference may be made to the German system of teaching in the lecture-room, laboratory, and wards, to examinations, and to the professors and students. It is not considered necessary to repeat what has been already said about these in our "Notes" on Kiel and Greifswald; and we shall assume that the reader has made himself tolerably acquainted with the character of the German school of medicine.

For the sake of convenience we begin with the *Pathological Institute*. This does credit, in its dimensions, arrangements, and contents, to the Medical School at Leipzic, and more especially to its superintendent, Professor Wagner. The great collection of valuable specimens which it contains was commenced, if we are not mistaken, by Wagner not more than twenty years ago, and had long to be accommodated in his own house. One of the most illustrious of modern pathologists, Wagner enjoys a very great local reputation as among the chief promoters of the success of the present Medical School at Leipzic, and as one who has laboured incessantly in the capacity of an investigator and teacher, not only in pathology, but also in practical medicine.

The Pathological Institute is well supplied with material—about 450 bodies annually—from the large General Hospital, in the grounds of which it occupies a corner. It is a large

building, in the form of a single oblong block, and contains four floors, of which the ground floor and first storey call for a short description here. A long corridor runs along the middle of the ground floor from one end to the other, opening towards the south into the post-mortem room, the dead-house, the chapel, and several smaller apartments for making and storing preparations; and towards the north into a suite of laboratories. The post-mortem room is furnished with an asphalte floor, polished stone tables, a "lift" from the cellars beneath, and a large desk at one corner where the notes are recorded. What we have just called the laboratories include the professor's room and a large public working room fitted up with tables in rows, where the students sit and study—each man for himself—practical morbid histology. All the students enjoy this privilege twice a week in winter, from five till half-past seven. We found that Hartnack's and Gundlach's microscopes were chiefly used; the Institute possesses some thirty of these instruments, but many of the students provide their own.

Passing to the upper floor of the Institute, one finds a central corridor ending in the auditorium or lecture theatre, which is seated for an audience of 150. On the north side, and running along the whole front of the building, is the museum, very extensive and well filled with specimens in handsome cases. But even this fine collection was not so interesting to us as another on the opposite side of the corridor, the disposal of which it might be well to copy in London schools. A rather large room is furnished with high tables, and these are covered with jars and bottles containing specimens in spirit in great abundance. The specimens are placed there for the use of the students, who are allowed and encouraged to open the jars and examine the contents with their own hands and eyes. Adjoining this museum are two other apartments—a room for the exhibition of diseased bones, and a mounting-room.

The working arrangements in the Pathological Institute at Leipzic afford an excellent example of German industry. Professor Wagner lectures daily on pathological anatomy from a quarter to seven to a quarter to eight in the morning! At eight o'clock punctually the post-mortem examinations are begun, and may go on till noon, the professor instructing the students individually in the art of necropsy. The class of histology meets, as stated, in the afternoon. The more advanced students are also instructed in pathological chemistry in Professor Hofmann's laboratory. Dr. Thierfelder, so widely and so well known by his "Atlas of Pathological Histology," is the present assistant of Professor Wagner.

(*To be continued.*)

## FROM ABROAD.

### Podophyllin.

M. Demarquay having of late made frequent use of this substance at the Maison Municipale de Santé, where a large proportion of the patients are women, M. Marchaut, his *élève*, published in the *Bulletin de Thérap.* for August 30 an account of the results that have been obtained of forty patients to whom it has been administered. Three only resisted its effects, and in these the constipation was rendered obstinate by mechanical obstacles. As a general rule its effects take place about twelve hours after its administration, the most extreme periods on either hand that were observed having been seven and nineteen hours. The medicine acted with little or no pain, either prior or subsequent to the stools; but it was often found that the patient had an inclination for stool without any result. This was especially the case in the subjects of obstinate constipation, and was obviated by increasing the dose, or better still by more frequent repetition of the remedy. The stools produced are remarkable for their non-diarrhœic character, being semi-liquid only, and often normal in colour and consistence; and podophyllin may be long employed without producing any secretory disturbance in the canal, and without inducing super-purgation to be followed again by constipation. The medicine may, however, act in this mischievous way if given in too large doses (five to ten centigrammes) and without bearing due relation to the age of the patient and the degree of constipation. In the stools there is also found a considerable portion of bile when the dose is properly apportioned. The various accidents said by some authors to attend the use of podophyllin (as vertigo, sweating, loss of appetite, vomiting, dysentery, etc.) have not been met with among M. Demarquay's patients, even when the medicine has been continued for a long period. This may be attributed to the small doses given, which have never exceeded six centigrammes. The formula which after various trials has been found most convenient consists in a pill made of three centigrammes of podophyllin, two of extract of hyoscyamus, and two of soap. This pill also constitutes the best average dose for an adult. It will sometimes, however, be insufficient in the subjects of habitual constipation, while for children one or two centigrammes suffice. When the three centigrammes do not prove sufficient, the dose may be gradually increased, or, what is preferable, the pills may be given oftener, so that one is administered every twelve instead of every twenty-four hours. And when these do not suffice, it will be preferable, in place of increasing the quantity of each dose, to repeat the pill every eight or six hours. At the end of the third day at latest the effect will have been produced, it being also explained to the patient that the medicine is not intended to act as a purgative but as a remedy against constipation, in order to secure the necessary patience. Stools once secured, the medicine must always be administered at the same time of the day, and the patient acquire the habit of going to stool. Ten or fifteen days may be required for this purpose, and then the doses must be gradually given at more prolonged periods; so that perhaps a month altogether may be required to overcome the constipation.

### Case of Extra-Uterine Pregnancy with a Live Fœtus.

The following case occurred in Prof. K. von Braun's clinic at the Vienna General Hospital, and is reported by his assistant, Dr. Bandl, in the *Wiener Med. Woch.* for August 8:—

A woman, aged thirty-five, who had already borne two children, applied for admission on November 20, 1871. She last menstruated at the beginning of April. Since the second month of her pregnancy she had been weak and emaciated, and had passed a good while in hospitals. In appearance her abdomen was distended as at full time, and the fœtal heart was plainly audible. We need not transcribe the description of the abdominal tumour, an examination of which led Dr. Bandl to pronounce the case one of extra-uterine pregnancy, a diagnosis which was confirmed by Prof. K. von Braun. Further examination with the uterine sound determined the emptiness of its cavity. The woman, though feeble, was able to walk about well after the sounding of the uterus. Gastrotomy, which had been determined upon as giving the woman a chance, had to be abandoned, as pain in the abdomen with febrile action commenced on the 30th, and on December 3 the patient died. An hour and a half before her death the fœtal heart was counted at 100, and its movements could be felt by the hand; and five minutes after she had expired the Cæsarian section was performed, and a living fœtus weighing more than eight pounds was removed. For ten minutes its heart beat about sixty per minute, and it made three inspirations; but in spite of all attempts at resuscitation it expired. On the abdominal section being made, from six to eight pounds of fluid were discharged before the fœtal membranes were reached.

The body of the mother was examined next day. From five to six pounds of turbid fluid were discharged, but nowhere could the fœtal membranes be discovered. The omentum adhered to the anterior abdominal wall, and the peritoneum was covered with loose pseudo-membranes. By raising up the intestines, the space in which the fœtus had lain for so many months became visible, its boundaries consisting chiefly of pseudo-membranous deposits which connected it with the abdominal parietes, the intestines, and the pelvic organs. The uterus, fifteen inches in length, lay on the left side, projecting about three inches above the aperture of the pelvis. The left ovary was of its normal size, while the right, half the size, was, together with the right tube, confounded with a tumour (six inches long, five inches broad, and four inches thick), which in part lay on the venter of the right ilium, and in part projected into the pelvis, adhering to the posterior wall of the abdomen by means of thick pseudo-membranes. This tumour contained the placenta, and vessels the size of a crowquill ran to it from the hypogastric. The wall of the tumour consisted of firm layers of substance, three or four lines in thickness; and facing the uterus, just under the level of the aperture of the pelvis, was a round aperture, an inch in size, having a sharp edge, much resembling the falciform process of the fascia lata. Through this passed the funis to

the placenta, surrounded by slight adhesions, and from the aperture there projected, so as to surround the funis, delicate, corrugated membranes of a yellowish colour, and evidently belonging to an early stage of pregnancy. The placenta, lying in this tumour, formed, with its membranous surface and its surrounding capsule, a cavity with smooth walls.

It is obvious from the autopsy that at an early period of pregnancy the ovum had burst, the placenta remaining in its original place, and the fœtus becoming gradually developed in the cavity of the abdomen. Most surprising is it how well both mother and child supported the process. The woman was never seriously ill until within four days of her death; and she offered an example of what has often been observed—that chronic peritonitis may be passed through without any increase in the rapidity of the pulse or rise of temperature. The history of the case gives no clue to the period when the disruption of the fœtus took place, unless some pain which she suffered at the third month, and emaciation which then commenced, can be so regarded. This, too, is about the period which the condition of the membranes around the aperture would suggest, and corresponds to the positions in which the other parts were found to be.

### Dr. Lente on Nephrotomy.

This subject has been recently debated upon at the New York Pathology Society, as reported in the *Medical Record* for August 1. Dr. Loomis related a case of "pyo-nephrosis" for which this operation had been performed. The patient, a seaman, thirty-five years old, was admitted into the hospital on account of a tumour in the lumbar region, which had first appeared about fourteen months before. This was about the size of his fist, and movable, and had not, until a fortnight before, caused him any serious inconvenience. Then, however, it enlarged, and his general health became impaired. A careful examination of the tumour in the left lumbar region led to its diagnosis as a case of pyo-nephrosis, and twelve ounces of pus were withdrawn by means of the aspirator, leaving a hard mass behind. The tumour after a while again increased; and, as the patient did not show any sign of malignant disease, while his temperature remained but 100°, and his pulse was only 96, it was determined to cut down upon it from behind, as in lumbar colotomy—a similar case having been recently so treated with success by Dr. Lente. An incision commenced two inches above the anterior-superior spine of the ilium was carried very nearly to the spinal column; and after the quadratus lumborum had been reached, the sac was opened, and forty ounces of fluid (containing pus, hyaline casts, and blood) were drawn off. A drainage-tube was then introduced, and retained there by plaster. The patient died fifty-two hours after the operation. A large tumour was found in the left lumbar region, which consisted of renal tissue markedly atrophied. Much fatty tissue surrounded the kidney, and there were three sacculi formed by dilated infundibula, and containing pus, one of which had been opened during the operation. Purulent infiltration had taken place into the fatty tissue adjoining, and by it gaining access to the reflected peritoneum. The line of reflection of the peritoneum was two inches anterior to the incision made through the lumbar region into the kidney. The right kidney was nearly twice its proper size.

Dr. Lente, who had recently operated in a somewhat similar case with success, observed that the operation required in these cases is exactly like that for lumbar colotomy, opening the distended kidney in place of the colon. The incision is made transversely midway between the last rib and the crista ilii. In order to avoid division of the lumbar arteries, the incision in his case was three inches in length, commencing three inches from the lumbar spine, this giving room enough in a spare subject, but hardly sufficient in a very muscular or fat one. The objective point is the edge of the quadratus lumborum, and on drawing this aside we ought to come at once on the dilated kidney. Dr. Lente claims his own case as the first one in which nephrotomy, properly so called, has been performed; for diligent search has not enabled him to discover any prior example in which a kidney had been cut down upon, when entirely free from perinephritic disease or adhesion, with no other guide except the anatomical relations of the parts. Such an operation has, indeed, been uniformly denounced by writers, and the cutting down upon the kidney for the removal of calculi, which has been performed by some, is not to be confounded with it. Dr. Lente will shortly publish the particulars of his case.

## REVIEWS.

*The Questions of Aural Surgery.* By James Hinton, Aural Surgeon to Guy's Hospital. London: King and Co.

No one, in reading this book, can fail to be struck with the entirely different manner in which the whole subject is treated from what it was at the time (not so very long ago) when Mr. Hinton brought out the last edition of Mr. Toynbee's treatise on diseases of the ear. To take one point—viz., the treatment of diseases of the middle ear—it would not be the least exaggeration to say that if the two books were laid side by side, excellent as the earlier work was considering the period at which it appeared, the later is immensely superior to it.

Without further preface we may at once say that whereas no one is better qualified than the present author to speak with authority on what he is writing about, very few surgeons possess the faculty of writing with such force and simplicity. He has invested his subject with an interest which it has not been shown to possess before, and it is rendered the more attractive to aural surgeons by the fact that the details of the subject are not largely dealt with. For these the reader is referred to two or three works which have been recently published by other authors.

In regard of foreign bodies in the external auditory meatus, Mr. Hinton plainly says that "it should always be borne in mind that there is one—and but one—great danger: the danger lest the surgeon should suffer himself to be drawn on into hurtful efforts at extraction." And on this question it would be well if his observations were read by every young surgeon in practice.

On diseases of the external meatus the remarks are of a similarly practical nature; but it is when speaking of the affections of the tympanum and Eustachian tube that Mr. Hinton's vast experience becomes manifestly of value. The origin of morbid conditions of the middle ear may be traced to an increase of secretion in the mucous tract which forms the lining of this cavity; whether the secretion be purulent or non-purulent (mucus), rapid in its effusion or slow, in each and every case the result is an obstruction to the passage of sound through the tympanum to the labyrinth. For a description of the manner in which this takes place, the changes which are brought about in the tympanic cavity and the membrane of the tympanum, we must refer the reader to the author's own words.

All the variations from health in the tympanic membrane are minutely described, and while their changes are shown most clearly in some cases to be *per se* the cause of impaired hearing, in others (the greater proportion) these are proved to be no more than evidence of the changes which have taken place in the tympanic cavity; such changes playing a far more important part in defective hearing than the morbid condition of the membrane.

In the treatment of obstruction of the Eustachian tubes, the mechanical methods of relief advocated are—Politzer's inflation; the air-douche through the Eustachian catheter; the injection of alkaline solutions when the case is of long standing and the mucous lining has ceased to secrete in excess; injection of astringents, such as sulphate of zinc, in the early stages, where secretion is in excess; and in all cases attention is directed to the faucial orifice of the Eustachian tube, local applications to these parts being from time to time necessary.

When the Eustachian tube is the seat of stricture, the passage of laminaria bougies through the Eustachian catheter is advocated, and in Mr. Hinton's hands the results of this treatment appear to be satisfactory.

It is in those cases where the products of catarrh have become most manifest in the tympanic membrane that Mr. Hinton shows himself to have been not only most persevering in his treatment, but no less successful; and when he has failed he acknowledges his failure in the frankest manner. Our readers are familiar with his papers "On the Treatment of Accumulation of Mucus in the Tympanum," published some time since in the *Guy's Hospital Reports;* and in the work before us he gives us his further experience in the treatment of this. Suffice it to say that cases are here recorded which no other mode of treatment would apparently benefit; and, indeed, it would seem that other methods have always had a fair trial before his was resorted to.

In the earlier chapters, the manner in which affections of the auditory apparatus can be satisfactorily separated from

diseases of the nervous apparatus are clearly shown; and when we come, later on, to the subject of these latter affections, it is not surprising to find that Mr. Hinton, like all other aural surgeons of any eminence, has very little to recommend in the way of treatment.

In connexion with the "Questions of Aural Surgery," Mr. Hinton has published an "Atlas of Diseases of the Membrana Tympani," which contains most faithful representations of the morbid appearances met with in diseases of the middle ear. Each illustration is drawn in water-colours in the most artistic manner; and it is certainly the most elaborate and beautiful work illustrative of morbid anatomy with which we are acquainted.

In concluding this short notice, enough has been said to show that the literature of the subject has received in this book an addition which reflects the greatest credit on English surgery.

## FOREIGN AND COLONIAL CORRESPONDENCE.

### AMERICA.

Philadelphia, June 15.

Annual Meeting of the American Medical Association at Detroit.—Sectional Work.

*IV.—Section on Medical Jurisprudence, Chemistry, and Psychology.*

Dr. Tulley, of South Carolina, was chairman of this section.

A paper of some interest was read by Dr. E. Lloyd Howard, of Maryland, on "The Legal Relations of Emotional Insanity." He stated that it was not the purpose of this paper to discuss at any length the pathology of moral insanity, nor to enter into any extended examination of the peculiar features which characterise it, but rather to consider in a practical way some of the vexatious medico-legal questions that are constantly arising from the diverse views of insanity generally, and of emotional insanity specially, held by the medical and the legal professions. The plea of insanity is now so commonly urged in criminal trials, and in several late noted cases has been so successfully used in defeating justice, that it becomes necessary to consider some means for checking a great and growing evil. He referred to the unsettled condition of our laws upon the subject—the conflict between old judicial decisions taken as precedents and modern psychological medicine, and the consequent different standpoints from which physicians and jurists view the matter. Viewed from the legal standpoint, it is easy to understand why cases of "impulsive" insanity are received with incredulity, while to the medical mind they are easily explicable. While the experience of all recent medical writers is concurrent and conclusive that insanity very frequently exists without delusion, and that very frequently insane persons are able to discriminate between right and wrong, the jurist remains trammelled by decisions and precedents that can only recognise insanity when accompanied by delusion or deficiency in the ability to discriminate right and wrong. Under these circumstances it need be no cause for surprise to find confusion and maladministration of justice when medical expert testimony is brought into court. The law is far behind the requirements of right and justice, as it is now notorious that a great many insane persons know the wrong of their actions, and yet ought not to be considered responsible; and so we find that "juries often, and judges occasionally, out of a natural humanity repudiate this dogma in particular cases," and the operation of the law is uncertain and variable. The revised statutes of New York enact that "no act done by a person in a state of insanity can be punished as an offence." Under this, there can be but little doubt, room is afforded for the escape from punishment of many criminals, if at all literally construed. In France and Germany there are somewhat similar laws, they being only general enactments, leaving each case to be decided upon its own merits—that is, as to whether or not insanity exists, and is connected with the crime in a causal relation. It being impossible, then, to define insanity by any "test" symptoms, Dr. Howard was of opinion that each case should be examined by the jury of itself, and they must be left free to judge of the value of all the facts in connexion with it. This seems to be the tendency of our more recent rulings, and it is the more humane, more just and proper course, and a great advance over the older decisions, better calculated to do justice to the prisoner, if not to protect the community. But the ends of justice would be better subserved, the security of society more certain, and the rights of individuals more secure if the laws exempting insane offenders from punishment were repealed, leaving the jury to determine the guilt or innocence of the prisoner, not on the grounds of insanity alone, but from all the facts; considering, in each case where insanity is alleged, its value, if proven, as an element in forming an opinion as to punishment. No doubt it will seem cruel to many to advocate the doctrine that insane persons should ever be made to suffer criminal punishment. But we must remember the law is not to take cognisance of the sufferings of the individual so much as of the safety of the community. This is its prime object, to be secured at all cost, and mercy can only be considered as subordinate to this first requirement.

*V.—Section on Public Hygiene.*

The chairman of this section was Dr. A. N. Bell, of Brooklyn, New York. The chief topics of discussion occupying the time of this section were Defective Drainage, the Use of Alcoholic Liquors, and the establishment of a National Health Bureau. It was contended, in regard to the latter, that it would be much more beneficial to the cause of public health if each State would first establish a bureau of this kind, rather than that a general national board should be at once created. Massachusetts some time since inaugurated such a movement within her own borders. Here the board at its first meeting was composed of three physicians and three laymen—viz., a superintendent of one of the largest woollen mills in the State, a wholesale leather dealer, and a literary gentleman connected with one of the leading Boston daily newspapers. It was believed that the addition of the laity had been in a high degree beneficial to the success of the board, making it popular. Its reports had come to be regarded with great favour and sought after by the people at large. The Legislature, unsought, had extended the powers of the board, and given them authority to prevent the continuance of unhealthy trades and occupations and the removal of nuisances which local boards of health are unable to compass. The courts had sustained the actions of the board, and, although the past year it had been brought in conflict with rich firms, who proposed to test the constitutionality of the law, there was no fear of demagogues attempting to repeal it. It was certain that the board had lost no favour in the eyes of the people, as was shown by the persistent demand for its publications.

It was resolved, as the sense of this section, that, with a view to the establishment of a national sanitary bureau, it is expedient, at the present time, to press through State medical societies and physicians everywhere, upon the Legislatures of the several States, the importance of establishing State boards of health.

Reports were read on the effects of defective drainage in various states. In Virginia, for instance, it was believed that one-half of all the mortality, and sometimes three-fourths, was caused by defective drainage. In New York city, with all its general salubrity and commercial importance, it was shown that the sewerage of the city was inefficient to carry off all the water, and conforming as it did to the rectangular plan of the city, the sewerage was incompatible with the thorough drainage and a cause of epidemics. Within the last two years, however, a law had been enacted and measures taken to secure deep drainage in that city.

Dr. Bell, of Brooklyn, as showing the unlimited time in which saturated alluvial soils retain deleterious influences, recited an anecdote of the digging up of the mastodon at Cohoes, New York, some years ago, the effect of which was to make the workmen sick from the stench arising, notwithstanding the fact that it was but a young mammoth and had been buried only about 40,000 years.

On motion it was resolved that the chairman of the section appoint a committee of three to report at the next meeting of the Association what, if any, legislative action can be taken to secure the appointment of State boards with authority to examine and license all who propose to enter upon the practice of medicine. It was asserted that there were, particularly in the Western States, and to some extent in the Eastern States, a class of unqualified men who assumed to practise medicine. Many of these had no medical education whatever, others a very partial or defective instruction, while others again held diplomas which, as attesting merit, were worth just about as much as the parchment they were written upon. It was

undeniable that this class of disqualified practitioners did much injury to the life and health of the people. Inasmuch as this Section upon State Medicine and Public Hygiene was particularly charged with the supervision of preventive measures conducive to the public health, he thought it was eminently proper that the section should take the initiative in this matter.

The following resolutions, referred to this section at the last annual meeting of the American Medical Association, were, after much discussion, adopted:—"Resolved—That in view of the alarming prevalence and ill effects of intemperance, with which none are so familiar as members of the medical profession, and which have called forth from eminent English physicians the voice of warning to the people of Great Britain concerning the use of alcoholic beverages, we, as members of the medical profession of the United States, unite in the declaration that we believe that alcohol should be classed with other powerful drugs; that when prescribed medicinally it should be done with conscientious caution and a sense of great responsibility. Resolved—That we are of opinion that the use of alcoholic liquors as a beverage is productive of a large amount of physical and mental disease; that it entails diseased appetites and enfeebled constitutions upon offspring, and that it is the cause of a large percentage of the crime and pauperism of our large cities and country. Resolved—That we would welcome any change in public sentiment that would confine the use of intoxicating liquors to the uses of science, art, and medicine."

An address was delivered before the whole Association by Dr. Bell, chairman of this section, "On the Waste of Life." The text upon which it was based was the following passage in Taylor's "Medical Jurisprudence":—"It is held in law that whoever accelerates death causes it." Many allusions were made to the conditions of life of the lower classes in New York city, and to the unfavourable hygienic surroundings of thousands of those dwelling in tenement-houses or in underground habitations. The raid of the sanitary police in New York last year, in view of the expected cholera, discovered thousands of people actually living in holes in the ground—a dozen or more in a huddle—in holes nine or ten feet square, swarming with vermin and rotten with disease; no less than 20,000 of these *troglodytes*, living like moles and bats in the dark, poisoning the atmosphere around and sucking the life-blood of the people. In the tenement-houses of New York there are many single rooms occupied by from ten to fifteen persons of both sexes, and frequently by several families. There are structures from four to six storeys high, divided into hundreds of rooms, crowded with men, women, and children, smothering for the want of fresh air, and in dirt and foul odours horrible to contemplate. And there are, not uncommonly, near buildings to such as these, adding to the stifling condition, the yards, which, with the gutters, are the common filth-receptacles for the out-throwings, and the wallowing-places of the children; the streets, as filthy as the gutters, for the young girls, and rum-holes at every corner for the parents. And these tenement-houses are the birthplaces of more than half of the children of New York! In them is carried on the perennial "slaughter of the innocents," of more than two years old and under, in comparison with which the crime of Herod sinks into insignificance.

In regard to the deaths ascribable to defective drainage, Dr. Bell stated that the mortality of the United States for 1870 was 492,263. A glance at this tabulated estimate in the census report will show that about one-half of the total number of deaths was caused by the diseases due for the most part to miasms, consequent upon soil-saturation and stagnant water; that from consumption alone there were 69,896 deaths; from enteric, intermittent, remittent, and typho-malarial fevers, and cerebro-spinal meningitis there were 34,529 deaths. Rheumatism, acute pulmonary affections, croup, diphtheria, and many other diseases well known to be largely due to, or promoted by the same cause, may, for our present purpose, be left out of the count. Of the 69,896 deaths from consumption, and 34,521 deaths from ordinary miasms, three-quarters of them at the least, or more than 75,000 lives, might have been saved by drainage. The total annual death-rate of Brooklyn from consumption last year was 3·47 per 1000 of population (census of 1870), and on the whole number of deaths the percentage for consumption was 12·55. In the city of New York, on an estimated population at the present of 1,000,000, there are deaths from consumption 4·13 per 1000 and 14·22 of the total mortality; Boston, 3·96 per 1000 of population, 13·84 per cent. of total mortality; Philadelphia, 3·05 per 1000 of population, 13·65 per cent. of total mortality; San Francisco, 2·74 per 1000 of population, 14·12 per cent. of total mortality; Albany, 3·43 per 1000 of population, 15·50 per cent. of total mortality; New Orleans (where the benefits of a mild climate opposed to consumption are condoned by defective drainage), 3·96 per 1000 of population, 13·84 per cent. of total mortality. Of the total mortality in the United States 12·45 per cent. was caused by consumption.

I have given you an elaborate account of the action of the late meeting of the Association, presuming that it would be of interest to the profession of Great Britain to learn how vigorous an ally her own national organisation now has, under the improved method of conducting its general and special business. The results of this meeting of representative American medical men will doubtless be such as to stimulate it to renewed activity. Let us hope that in all measures looking to the advancement of their honour and dignity there may always be a most cordial greeting and fraternal sympathy between the members of the profession in their great national councils on both sides of the Atlantic.

## GENERAL CORRESPONDENCE.

### BLOOD-LETTING.

Letter from Dr. W. L. White.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the very able communications on "Blood-letting as a Point of Scientific Practice," by Dr. B. W. Richardson, I notice some successful cases after blood-letting in uræmic coma, etc. From several years' hospital practice, I can testify at least to three cases in which the above treatment was productive of the greatest benefit. In the first case, a middle-aged man suffering from uræmic convulsions was bled from the arm to several ounces. The convulsions ceased, and the patient was able to leave the hospital. This man was undergoing the orthodox treatment, for I had been taught the great danger of blood-letting. I was continuing this treatment, when my superior in office saw the man, and bled him from the arm with the above result. The second case was also that of a middle-aged man, admitted with renal disease, and who was attacked with convulsions. He was bled to several ounces from the arm. This man recovered so quickly, that in a few days he was able to walk from his ward to a cab at the hospital door, as he wished to return home. The third case was that of a boy eight or ten years of age, who, after having an attack of scarlet-fever, caught cold, and shortly afterwards dropsical symptoms, with albuminous urine, took place, followed by uræmic convulsions. The convulsive attacks were so rapid and severe that it became impossible to bleed him with safety. It was decided to place him under the influence of chloroform, and bleed him when under its influence. The chloroform was administered, and he was bled from the arm to six or seven ounces. He afterwards fell into a quiet sleep, the convulsions passed away, and he recovered.

Should I again have similar cases under my care, I shall certainly, if possible, follow the same plan of treatment.

I am, &c., Wm. L. White, M.B.

Sunderland Infirmary, September 5.

### THE EXCITING CAUSE OF ENTERIC FEVER.

Letter from Dr. W. Strange.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your courteous mention of the contribution under this heading, which you were so good as to publish a few weeks ago, induces me to hope that you will not deny me a small space in which to correct a misunderstanding of my meaning, which, from your observations in the issue of the 22nd ult., I fancy you have fallen into. You say, rightly enough, that I was confessedly advocating one theory of the causation of typhoid against another. But you have apparently overlooked the concluding sentences of my paper, in which I qualify this, and endeavour to guard myself from being understood to deny the *occasional* origin of the disease from specific, or quasi-specific, germs generated by the patient, and discharged from the intestinal tract. The following

extract will show this very clearly:—"As to the exciting cause (of typhoid), authorities of equal weight, and equally modern, attach different degrees of importance to certain observed facts, the only mode of reconciling which difference will be found in acknowledging, *at least*, a twofold origin and propagation of the disease in question; or, rather, a primary and a secondary cause. And I think it is a fact that the witnesses to the generality of the *pythogenic*—or, as we say, the *de novo*—origin very largely outnumber those who pin their faith to an exclusively contagious one." In short, the view of the causation of enteric fever which I, in common, as I believe, with hundreds of other trustworthy observers, hold, is this: In nine cases out of ten the fever is of pythogenic origin,—*i.e.*, bred of sewage, gaseous and liquid, or of some other decomposing matters, chiefly of animal origin; whilst in the tenth case it may arise from a contagium, or quasi-germs of the disease, which are produced in, and discharged from, the bowels of one already ill of the fever.

As nothing is really known of the real nature, either of the pythogenic *materies*, or of the so-called specific intestinal germs of the disease, it is quite possible that neither are really specific—that is, capable of producing this disease and no other,—but consist of matter in some form or condition, which, whether emanating from a foul drain or closet, or from a patient's intestines, or from the decomposition of animal substances, as in the case of *rat broth* reported in my paper, possesses, for the time being, the properties of a true morbific ferment, the results of the action of which on the human frame are, in the majority of cases, the phenomena of enteric fever.

Finally, my chief object was to warn medical officers of health not to lose sight of the *nine* whilst seeking for the *tenth* unit in the account. I am, &c.,

Worcester, September 1. WILLIAM STRANGE, M.D.

## SPA IMPROVEMENTS.

### LETTER FROM MR. W. J. BLACK.

[To the Editor of the Medical Times and Gazette.]

SIR,—Since visiting some of the Belgian towns I have been impressed with the extent of modern improvements at present being undertaken in them, as the cutting of new streets, the widening of old ones, and the erection of new public and private buildings, and the various restorations of old ones going on. Antwerp, Brussels, Liege, Aix-la-Chapelle are all bestirring themselves to improve, modify, and adorn their several towns in this manner, proving that there is abundance of money, and credit, labour, and industry in Belgium.

It appeared, however, rather curious that the chief inland watering-place and health-resort of Belgium—Spa—should be as yet not included in this reawakening of enterprise, as, with the exception of the Maison des Bains, there is not a new public building to suit modern taste or utility yet undertaken for the improvement of the place.

The streets are all much the same as before, and so are the promenades and avenues, and so are the private houses, with the exception of the Villa d'Alsa, which looks a pleasant modern edifice, and is set off by picturesquely ornamented grounds around it.

The Avenue de Sept Heures appears to need remodelling, as its soil does not seem to have been renewed or re-metalled for some time, and must now be well impregnated with the decaying remains of tobacco and cigars, and the exuviæ of animal and arboreal beings. The lower part of it in rainy weather now becomes a marsh and a slough, from the choking up of the drainage, particularly at the circular part; and the exhalations brought out by the sun afterwards are now sufficiently manifest as to be considered offensive. It should be stated that this avenue represents the original course of the stream passing through the town, and that it is only arched over and covered up from sight, so that the bed underneath, not being paved or flagged, must by this time have become thoroughly soaked with sewage and detritus from the streets. The remainder of the course of the stream would appear to pass under the Place Royale and Rue Marche, and so on to the Boulevart des Anglais at the upper end of the town, where it again appears in the open alongside the new English church. The Avenue de Sept Heures is about 100 years old, and is composed of lofty, full-grown lime trees in full foliage, which completely arch over the promenade between them, and therefore exclude the air and sun just as much as a tropical forest, and prevent the access of the winds to purify its atmosphere and dislodge its vapours. There have been complaints from visitors of their catching colds and fevers in Spa, and nothing would seem more probable than their getting them after sitting under the trees in this avenue in the evenings, in summer dress, listening to the bands playing.

There has also been noticed by visitors a sense of sleepiness which they experience after a residence of a week or two at Spa, which comes on insensibly, and renders them prone to accuse the air of the place of being relaxing. This may very likely be due partly to the impurity of the air of the lower town and of the Avenue de Sept Heures from the causes just mentioned, as it is also experienced by miners digging in pits and sailors at work in the holds of ships where there is deficiency of aërial ventilation. I should therefore be inclined to suggest that an entirely new orchestral avenue or promenade place be designed and constructed, and that it should be formed on one of the neighbouring plateaus on the south side, near the railway line, either to the right or left of the Benisart road. This situation would be much more airy in hot weather, and would be made on new dry, gravelly soil, easily drained on every side, and would have pleasant surrounding panoramic views of the hills. Instead of its being formed as a longitudinal avenue, as the old one, it might be designed of a circular shape, like a Druid's grove and temple, with the orchestra-stand in the centre, and the promenade walk surrounding it, with divergent paths, like rays, all round its circumference.

A restaurant and reading-room building might also be added for the refreshment and recreation of the frequenters of the band performances, and the old Band-kiosk could be removed and re-erected in its new position. The old avenue could then be converted into a carriage-drive, or Bois de Cumbre, for the exhibition of vehicles and horses by their owners or occupiers, and the road be made continuous up to the Cemetery Valley, and it should be remetalled or paved for the purpose. The climate and air of Spa on the surrounding hills and elevated plateaux must be considered excellent, and there the visitor feels he breathes a new and refreshing mountain air, and hence arises the necessity experienced by everyone to take driving or riding exercise out of the town to replenish their lungs.

Care has been taken to maintain the purity of the mineral waters by the requisite engineering adaptations, so that they are as good as ever they were, but nothing seems to have been done on behalf of the atmosphere of the town, the local impurity of which is probably increasing every year, as the surface of the soil accumulates human and vegetable exuviæ.

It should further be borne in mind that, in order that the chalybeate waters should get their full chance of a curative effect, it is highly requisite that the invalid should be able to enjoy the purest and freshest of air, particularly those who are unable physically to take country exercise.

It is therefore to be hoped that some of the widening waves of enterprise in the mercantile centres of Belgium may ere long reach isolated Spa, and bear on their crests some of their impulse and wealth, to impart to it new life and activity, with a view to its future increase in prosperity, and cause it to eclipse even its former pre-eminence as a watering-place and health-resort. I am, &c.,

August. W. J. BLACK.

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THE quarterly return of marriages, births, and deaths in Ireland (the marriages are for the first quarter and the births and deaths for the second quarter of the present year) are—marriages, 9481; births, 38,580; deaths, 24,128.

TREATMENT OF FURUNCLES.—Professor Hardy, when boils appears in various parts of the body, almost always succeeds in dispersing them by general treatment. He never employs, as is too often done, frequent purgatives, and very rarely practises incision. If this last be employed too soon, it does not cure the furuncle, always leaving an indurated base, which ends in a mortification of the cellular tissue. Made too late the incision is useless. Among all the various internal remedies that have been recommended, he prefers tar, ordering above a quart of tar-water to be drunk daily. In some cases alkalines or arsenical preparations may be used, or the sulphureous mineral waters of Aix or Bagnières de Luchon. When there is a complication with dyspepsia, alkaline waters, such as those of Vichy, are indicated.—*Union Méd.*, September 1.

## OBITUARY.

### FRANCIS EDMUND ANSTIE, M.D., F.R.C.P.

Since last our pages appeared before the public there has passed away from among us one who had every reason to look forward to a bright future and many happy days; for Francis Edmund Anstie was only in his forty-first year when, after a few days' illness, he perished. Born in Devizes in 1833, he was educated at a private school; and having determined to study medicine, he was, in the fashion of those days, articled to his uncle, Mr. Thomas Anstie, of Devizes, in 1849. In 1853 he came to London, and entered King's College—probably attracted by the fame of the teachers who then filled the chairs. One of them especially, the late Dr. Todd, seems to have influenced Anstie's mind to a very great extent. Of Todd he was an enthusiastic admirer, and the bent of Todd's mind seems to repeat itself in certain of Anstie's researches. As a student, Anstie seems to have been in no degree remarkable. He was a good and earnest worker, but gave little indication of the character which afterwards developed in him. In 1858 he graduated M.D. in the University of London, and in the year following settled in Onslow-square. In 1862 he married, and in the year following removed to Wimpole-street, where he resided till his death. At a very early period his attention was directed to a subject which engaged him to the last—the effects of alcohol on the system, and the changes it undergoes therein; and upon this subject he began to write as early as 1861 in the *Cornhill Magazine*. In 1864 he published a work of much research and great value on Stimulants and Narcotics, which is still, in many respects, the standard work on the subject. At a tolerably early period of his career, Anstie became connected with Westminster Hospital; but promotion was slow, and it was only last year that he became full Physician to that hospital. This, we cannot help thinking, was, in a certain way, a public misfortune, for had he earlier come into the charge of in-patients, it is not to be doubted but that the work he has left behind him would have been more extensive and more valuable, for no one knew better than he did the unsatisfactory nature of out-patient work from a scientific point of view. Anstie was a most assiduous worker, getting through an amount of work which was perfectly amazing. He was constantly bringing cases before one or other of the medical societies, especially the Clinical. He wrote largely for one of our contemporaries, and for years he has carried on the *Practitioner* almost single-handed, contributing, month after month, an amount of matter which would have exhausted a less fertile mind. He also had the task of seeing "Reynolds's System of Medicine" through the press—a work of immense labour and little thanks. To this "System" he contributed several articles of value and importance, especially on Alcoholism and on Neuralgia. On the last subject—neuralgia—Dr. Anstie was, perhaps, the best living authority, having in 1871 published "A Treatise on Neuralgia and its Counterfeits," which speedily obtained a well-merited success, and added greatly to his justly increasing reputation. Curiously enough, like many other successful books, it was in part, at least, founded on dire personal experience, for Anstie was from time to time a sad sufferer from migraine, so severe as to incapacitate him for work. It was this, too, which probably turned his mind towards nervous diseases, which latterly especially he had studied much, and with great success. From these researches we all hoped great things, but now these expectations are gone, and the work must be done by someone else. His recent clinical lectures in our columns, as well as in those of one of our contemporaries, will be fresh in the minds of our readers. These were no sham lectures, as is sometimes the case, but real *bonâ fide* lectures, delivered to the students of Westminster Hospital. To them, and to their school generally, Dr. Anstie's loss is a most severe one, for it will be hard to find one well qualified to fill his place.

This, however, gives an idea of one side only of Anstie's character. He was a great advocate for the social well-being of the poor. He it was who, along with Ernest Hart, originated and in great measure worked out the inquiry into the workhouse system, which ended in Gathorne Hardy's Act —an immense boon to those who are reduced to such extremities as to necessitate application for parochial relief. He, too, was the prime mover in the representation sent from the Royal College of Physicians to the present Government on the subject of overcrowding in London, and the necessity of providing more and better house-accommodation for the working-classes; and, in truth, in all matters of reform in the College Dr. Anstie was a leading spirit.

Nor in such a sketch, all imperfect and hasty as it is, can we overlook Dr. Anstie's social qualities. Gifted with a handsome person and a fine face, Anstie would have anywhere been noticeable, but nature had over and above endowed him with a fine voice, which, as he was a most accomplished musician, was often called into play to the delight of others. Anstie was also a capital speaker, and at our societies was invariably listened to with respect and satisfaction. As regards personal characteristics, if he had a fault it was impetuosity; but the impetuosity was always on the right side. Utterly fearless, he invariably spoke as he thought, and he thought as a high-minded gentleman. Any abuse, any wrongdoing, was sure to find Anstie arrayed against it; anyone, especially if weak and powerless, who had been wrongly dealt with, found in Anstie a ready advocate. In this respect his character was a truly noble one. The same characteristic extended itself to all his actions, and gave him a delicacy of feeling and a hearty, gentlemanly mode of action not quite so common as one could desire in this work-a-day world. Many can speak of letters of sympathy when injustice has been done which he was powerless to obviate or remedy, but which he might have been, by those who knew him not, supposed to connive at.

Of Dr. Anstie's last short and fatal illness we can say but little. Its nature has already entered into the region of controversy, but the main facts are as follows:—

There had recently been a very peculiar outbreak of epidemic disease at the Royal Patriotic School for Girls at Wandsworth-common (elsewhere referred to), and Dr. Anstie had been sent for in time to see some of the fatal cases. The last of these he examined post-mortem on Sunday, the 6th inst., and in so doing pricked a finger on his right hand. On Monday he was able to go about his ordinary avocations much as usual, but mentioned to his wife that he had cut his finger, but, having promptly sucked it, thought no harm would come of the accident. On Tuesday, however, though nothing was seen about the wound, he began to complain of pain in his arm, and of great lassitude. On Wednesday the pain was greater, but no appearance of anything unusual was noticeable about his arm. Still there was pain and stiffness in the axilla, and he began to fear he might have an abscess there or an outbreak of boils, such as he had suffered from on a similar occasion previously. On Thursday all the symptoms were aggravated, and there was intense and uncontrollable chilliness. Friday saw matters still worse: there was a bush of erysipelatous redness over the right chest, with signs of rapidly advancing pleuro-pneumonia. His mind, too, began to wander. On Saturday morning he sank, with signs of a clot in the heart, another victim to scientific research, and leaving a widow and three children to bewail their immeasurable loss. On Wednesday all that was left of him was laid in the grave at Friern Barnet.

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### EDWARD CUTLER, F.R.C.S., etc.,

Was the son of the Rector of Patney in Wiltshire. He commenced his medical education at St. George's Hospital in 1820. He held the office of Assistant-Surgeon to the Life Guards from 1821 to 1826. He was Surgeon to the Lock Hospital for many years; Assistant-Surgeon at St. George's from 1834 to 1843, at which period he was elected Surgeon. A correspondent thus writes of him—"His success in his operations and their after-treatment earned him a great reputation there, as it did in his private practice, and was often acknowledged by the late Sir Benjamin Brodie, whose assistant he was for some years in the early period of his professional life. A firm and lasting friendship existed between them. Mr. Cutler was, indeed, generally beloved and esteemed by a large circle of friends, not only for his professional ability, but also for his highly honourable and amiable character. He became Fellow of the College of Surgeons in 1843, and subsequently obtained a seat in the Council. He married in 1824 the daughter of the late Sir Thomas Plumer, Master of the Rolls, who survives him." Mr. Cutler died last week.

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The President of the Queen's College, Galway, has issued the report for the Sessions 1872-73, 1873-74. The number of new entrants last session was eighty-three; the total number attending, 156.

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 10 :—

Crétin, Eugene, St. Bartholomew's Hospital.
Fox, Richard Hingston, Stoke Newington.
Higgs, Augustus William, 320, Marylebone-road.
Vanes, Arthur Bayly, Carr's-lane, Birmingham.
Wright, John Sydney Albert, Horsham.

The following gentleman also on the same day passed his primary professional examination :—

Howard, Edwin, St. George's Hospital.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DAVIES, HUGH WALTER, M.R.C.S. Eng.—House-Surgeon and Registrar to the Cancer Hospital, Brompton.

EWART, JOHN, M.R.C.S. Eng.—Medical Officer for the Accrington and District Dispensary.

FERRIER, DAVID, M.D., M.R.C.P.—Assistant-Physician to King's College Hospital.

FOTHERGILL, J. MILNER, M.D., M.R.C.P.—Junior Physician to the West London Hospital, *vice* David Ferrier, M.D., M.R.C.P.

HEWARD, J. M., M.R.C.S., L.S.A.—Medical Officer to the Stamford Urban Sanitary District.

WILSON, H. C., M.D. Queen's University, Ireland.—An additional Resident Surgeon at the Birmingham General Dispensary.

## NAVAL APPOINTMENTS.

ADMIRALTY.—Thomas Redfern, Surgeon, from the *Hector* to the *Rocket*, commissioned; John W. Davis, Surgeon to the *Lapwing;* Alfred W. Whitley, Surgeon to the *Euphrates*, complement incomplete.

## BIRTHS.

ALLAN.—On September 5, at St. Helier's, Jersey, the wife of Surgeon-Major A. Allan, M.D., Army Medical Department, of a son.

ANDERSON.—On September 15, at 20, Upper Berkeley-street, Portman-square, W., Mrs. Garrett-Anderson, M.D., of a daughter.

BEATSON.—On August 17, at Sitabaldi, Nagpur, Central India, the wife of Surgeon-Major W. B. Beatson, M.D., of a son.

BLAKER.—On September 12, at 7, Lansdowne-crescent, Worcester, the wife of Edgar S. Blaker, L.R.C.P. Edin., M.R.C.S. Eng., of a daughter.

CARMICHAEL.—On September 6, at Wyrley Grove, Staffordshire, the wife of Dr. William Carmichael, late R.N., of a son.

CAROLAN.—On August 3, at Great Clacton, near Colchester, Essex, the wife of James F. Carolan, M.R.C.S., of a son.

FARRINGTON.—On September 2, at The Moat, Penshurst, Kent, the wife of W. H. Farrington, M.D., of a son.

HARVEY.—On September 7, at Wirksworth, Derbyshire, the wife of George Harvey, F.R.C.P., L.R.C.S.I., of a daughter.

KING.—On September 14, at 48, Harley-street, Cavendish-square, W., the wife of Robert King, M.B., M.R.C.P., of a son.

MAFFEY.—On September 14, at Terrace Royal, Nottingham, the wife of John Maffey, L.R.C.P., of a son.

MAHON.—On September 5, at The Avenue, Aspley Guise, Bedfordshire, the wife of George Annesley Derville Mahon, M.R.C.S. Eng., of a son.

MILSON.—On September 8, at 88, Finchley-road, South Hampstead, the wife of R. Henry Milson, M.R.C.S Eng., of a son.

MOORE.—On September 7, at Hale-street, Coventry, the wife of Milner Moore, L.R.C.P., M.R.C.S., of a daughter.

## MARRIAGES.

ALLWOOD—HARDERN.—On September 2, at St. James's Church, Sutton, near Macclesfield, J. Philip Allwood, L.R.C.P., M.R.C.S., of Macclesfield, to Elizabeth Thorneycroft, only daughter of William Thorneycroft Hardern, M.R.C.S. Eng., L.S.A., of Wood Cottage, Sutton, Macclesfield.

BARLOW—DAVIES.—On September 5, at St. Gabriel's, Bromley, Frederick Richard, youngest son of the late Nathaniel Barlow, M.R.C.S., of Blackmore, Essex, to Alice Elizabeth, eldest daughter of George Davies, Esq., of Florence Cottage, Dalston.

BINDON—DOWNIE.—On September 2, at St. Peter's Episcopal Church, Edinburgh. William John Vereker Bindon, L.R.C.P. Edin., L.R.C.S., eldest sonof Henry Vereker Bindon, M.D., Staff Surgeon-Major, P.M.O., Natal, to Mima, youngest daughter of the late Thomas Walters Downie, Esq., Trininallum, Stirling.

BLAYDES—DYER.—On June 10, at St. Paul's Church, Auckland, New Zealand, Frederick Augustus, eldest surviving son of the Rev. F. H. Marvel Blaydes, M.A., Vicar of Harringworth, Northamptonshire, and nephew of the late Sir Edward H. Page Turner, Bart., to Alice Caroline, youngest daughter of W. Dyer, M.D., H.E.I.C.S.

CLARK—SWANZY.—On September 9, at Riverhead, Kent, Alfred Ashley, second son of F. Le Gros Clark, F.R.S., President of the Royal College of Surgeons of England, to Kate, second daughter of Andrew Swanzy, Esq., F.L.S., of Sevenoaks, Kent.

CUTFIELD—SMALLEY.—On June 25, at Sydney, New South Wales, Henry McArthur Cutfield, Lieut. R.N., second son of the late Alfred Baker Cutfield, M.D., of Deal, Kent, to Bessie, only daughter of the late R. Smalley, B.A., F.R.A.S., Government Astronomer of Sydney.

DIXON—GURNEY.—On September 1, at Lower Wimbledon Baptist Chapel, John Dixon, M.B., surgeon, to Harriet Edith, second daughter of the late Thomas Gurney, Esq., of Brixton-hill.

EDIS—MURRAY.—On September 9, at 35, Belmont-street, Aberdeen, Arthur Wellesley Edis, M.D., of 22, Wimpole-street, Cavendish-square, London, to Mary, youngest daughter of Andrew Murray, Esq.

ELLIOTT—HACON.—On September 10, at St. John's, Hackney, Edmund Frederick, second son of William Elliott, Esq., of Lower Clapton, to Alice Louisa, second daughter of Edward D. Hacon, F.R.C.S., of Mare-street, Hackney.

FERRIER—WATERLOW.—On September 3, at St. John's Church, Red-hill, David Ferrier, M.D., Professor of Forensic Medicine, King's College, London, to Constance Eliza, third daughter of Mr. Albert C. Waterlow, Fairlawn, Red-hill, Surrey.

LANGRIDGE—TIPPLE.—On September 7, at St. Mary's, Hornsey, Thomas Benjamin Langridge, of Midhurst, to Charlotte Jane, eldest daughter of the late Charles Tipple, M.R.C.S., of Baldock, Herts.

MARSHALL—WARWICK.—On September 8, at St. Jude's Church, Englefield-green, Surrey, John James Marshall, L.R.C.S.I., of Lamberhurst, Kent, to Mary, eldest daughter of Benjamin Warwick, Esq., of Englefield-green.

MESSER—MAY.—On September 15, at the Church of St. James the Great, Devonport, John Cockburn Messer, M.D., Staff Surgeon R.N., H.M.S. *Implacable*, to Elizabeth, eldest daughter of Joseph May, F.R.C.S., J.P., of Nelson-villas, Devonport.

SMITH—LEONARD.—On September 3, at the City Temple, Holborn Viaduct, Alfred Mountford Smith, of Norfolk-road, Dalston, to Mary Anne Ordway, eldest daughter of T. Leonard, M.D., of New North-road, Hoxton, N.

SPARKS—PANTON.—On September 2, at Holy Trinity Church, Dorchester, Edward Isaac Sparks, M.A., M.B. Oxon, of 46, Queen Anne-street, Cavendish-square, London, to Sarah Emily, second daughter of the late George Panton, Esq., of Dorchester.

TAYLOR—WHITAKER.—On September 3, at St. John's, Mansfield, Notts, Herbert Owen Taylor, M.D., son of Henry Taylor, M.R.C.S. Eng., L.S.A., to Mary Anne Allcock, eldest daughter of the late Joseph Whitaker, Esq., formerly of Ramsdale House, Notts.

THOMSON—WILCOCKSON.—On September 3, at St. Mary's Church, Nottingham, Joseph Thompson, L.R.C.P. Lond., M.R.C.S. Eng., to Edith Maria, eldest daughter of W. H. Wilcockson, The Bank, Nottingham.

WEIR—BRIGHT.—On September 15, at the Ancient Chapel, Toxteth-park, Liverpool, Archibald Weir, M.D., of Malvern, to Anna Maria, youngest daughter of the late Samuel Bright, Esq., of Sandheys, Liverpool.

WIGLEY—MCKENNA.—On September 5, at St. Peter's, Kensington-park, John Norton Wigley, Esq., to Caroline Sophia, daughter of the late John McKenna, M.D., late Deputy Inspector-General of Hospitals, Madras Presidency.

## DEATHS.

ANSTIE, FRANCIS EDMUND, M.D., F.R.C.P. Lond., at 16, Wimpole-street, Cavendish-square, after a few days' illness, on September 12, in his 41st year.

BATES, WILLIAM, M.D., F.R.C.S., at his residence, 6, Stockport-road, Ardwick, Manchester, on September 9, aged 55.

BOWDAGE, E., M.R.C.S. Eng., L.S.A., at his residence, Wiveliscombe, Somerset, formerly of Crewkerne, on September 6, aged 74.

CARTE, EDWARD ELLIOTT, elder son of John Elliott Carte, M.B., C.B., Inspector-General of Hospitals, at Somerset-street, Portman-square, on September 10, in his 15th year.

CARTER, AGNES JANE, wife of Frederic Carter, Surgeon-Major 1st Goorkha Regiment, N.I., and daughter of the late C. B. Emmott, M.D., at Egham, on September 4.

CARTER, ARTHUR SEPTIMUS BECHER.—On September 14, at 69, Wimpole-street, aged 10 years, after a lingering illness, Arthur Septimus Becher, the beloved son of Robert Brudenell Carter, F.R.C.S.

CUTLER, E., F.R.C.S., Consulting Surgeon to St. George's and the Lock Hospitals, at 15, New Burlington-street, on September 7, aged 77.

HORSBRUGH, HELEN ROSE, wife of Boyd Horsbrugh, Esq., Madras Civil Service, Coimbatore, second daughter of the late J. Dorward, Esq., Inspector-General of Hospitals, Madras Presidency.

INGLIS, FREDERICK ARCHIBALD, younger son of Dr. Inglis, at Worcester, on September 13, aged 7 months.

LITCHFIELD, MARIAN, only daughter of the late Vincent Litchfield, M.R.C.S., at St. Leonard's-on-Sea, on September 3, aged 18.

MCKENNA, JANE, wife of John McKenna, M.D., late Deputy Inspector-General of Hospitals, Madras Presidency, at Egmore House, 82, Lancaster-road, Notting-hill, on September 11.

PERFECT, ANNE, daughter of the late T. W. C. Perfect, M.R.C.S., aged 68.

ROGERS, Mrs. ARNOLD, widow of Arnold Rogers, F.R.C.S., at 16, Hanover-square, on September 4, aged 75.

STEEL, EDMUND HOOPER, elder son of Charles Wilson Steel, M.R.C.S., at Southfield, Lewisham, on September 13, aged 37.

TAYLER, MARGARET, eldest daughter of Christopher Tayler, M.R.C.S. Eng., L.S.A., Trowbridge, Wilts, on September 6, aged 32.

THOMSON, DAVID, L.R.C.S. Edin., Surgeon R.N., of Pentland, Murrurundi, New South Wales, at 3, Cameron-place, Roquettes, Jersey, on September 4, in his 86th year.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BEDFORD GENERAL INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Committee, on or before October 3.

BRISTOL GENERAL HOSPITAL.—Physicians' Assistant. Candidates must possess a registered medical qualification. Applications, with testimonials, to the Secretary, on or before September 24.

DORSET COUNTY HOSPITAL.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman, County Hospital, Dorchester, on or before September 23.

LANGPORT UNION.—Medical Officer for District No. 1 A. Applications, with testimonials, to Mr. J. F. H. Warren, Clerk to the Union, on or before September 22.

LIVERPOOL DISPENSARIES.—Two Assistant House-Surgeons. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before September 22.

ROYAL ALBERT HOSPITAL, DEVONPORT.—Junior Surgeon. Candidates must be duly qualified, and registered. Applications, with testimonials, to the Secretary, on or before September 30.

SOUTHPORT CONVALESCENT HOSPITAL.—Resident Medical Officer and Superintendent. Candidates must be qualified. Applications, with testimonials, to the Chairman of the Hospital, on or before September 21.

SUNDERLAND AND BISHOPWEARMOUTH INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Candidates must possess both a medical and surgical qualification. Applications, with testimonials, to the Secretary, on or before September 24.

THREE COUNTIES PAUPER LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be duly qualified. Applications, with testimonials, to Mr. F. G. Butler, Clerk to the Committee of Visitors, St. Neots, Hunts, on or before September 21.

YORK LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Bootham, York, on or before September 19.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Bury St. Edmunds Incorporation.*—Mr. R. Dalton has resigned the Workhouse; salary £30 per annum.

*Goole Union.* The Swinefleet District is vacant; area 2455; population 1319; salary £15 per annum.

*Lincoln Union.*—Mr. J. D. Wrangham has resigned the Sixth District; area 19,605; population 3044; salary £30 per annum.

*Lutterworth Union.*—Mr. H. W. A. Coleman has resigned the First District; area 17,891; population 5364; salary £104 per annum. Also, the Workhouse; salary £30 per annum.

*St. Thomas Union.*—The Topsham District is vacant; area 4239; population 4361; salary £54 19s. per annum.

*Toxteth Park Township.*—Mr. Sidney H. Carter, Assistant Medical Officer of the Workhouse, has resigned; salary £100 per annum.

### APPOINTMENTS.

*Bakewell Union.*—Joseph Taylor, L.F.P.S.G., L.S.A., to the Eyam District.

*Chesterton Union.*—Charles Edward Walker, M.R.C.S.E., L.R.C.P. Edin., to the Third District.

*Drayton Union.*—Thos. Llewellyn Lloyd, L.R.C.P., M.R.C.S., to the Fourth District.

*Holywell Union.*—David Griffiths, L.F.P.S.G., L.S.A., to the Second Division of the Whitford District.

*Horncastle Union.*—John Dunn Wrangham, M.D., M.R.C.S.E., L.S.A., to the Wragby District.

*Mansfield Union.*—John S. Turner, M.R.C.S. Eng., L.S.A., to the Fifth District.

*Staines Union.*—Percival Kingsford, M.R.C.S. Eng., L.S.A., to the Sunbury District.

*Wigton Union.*—Wm. Hodgson, M.R.C.S. Eng., L.S.A., to the Aspatria District; David Robison, L.F.P. & S. Glasg., to the Allonby District.

*Witney Union.*—John Parkinson Atkinson, M.D. Glasg., L.R.C.P., L.R.C.S. Edin., to the First Bampton District.

### SUPERANNUATION ALLOWANCE.

Mr. Henry Beach, after twenty-five years' service as a District Medical Officer of the Cheltenham Union, has been granted a retiring allowance of £90 per annum.

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THE Council of the Royal College of Surgeons in Ireland have issued a reply entitled "Remarks" to the report of the visitors appointed by the General Medical Council to visit their examinations held in January last.

THE Cheltenham Board of Guardians have granted, and the Local Government Board have sanctioned, a superannuation allowance to Mr. Henry Beach on his resigning as Medical Officer for No. 1 District.

PUBLIC attention having been directed to the condition of the schools and workhouse at Isleworth, two inspectors of the Local Government Board recently had an official conference with the Board of Guardians at the workhouse on the subject.

THE Council of the Royal College of Surgeons in Ireland give notice that the next examination for letters testimonial of the College will take place for the first half on November 30, and for the second half on December 14.

ELECTRICITY IN VOMITING.—Electricity has been employed with great advantage at the Bellevue Hospital, New York, in several cases of obstinate vomiting. The positive pole is placed over the seventh cervical vertebra, and the negative one over the stomach, the strength of the current being varied according to the susceptibilities of the patient.—*Medical Record*, August 1.

THE Local Government Board are circulating copies of the Public Health (Ireland) Act to the different corporations and unions in Ireland.

DR. ROBERT THOMAS SCOTT, late Surgeon Army Medical Department, died suddenly of heart disease at Kilbeggan County, Westmeath.

THE Local Government Board have forwarded a letter to the Irish unions, directing the levy of one farthing in the pound for the purpose of carrying out the "Cattle Diseases Act."

UNDER a notification from the Egyptian Board of Health (says the *Times of India* of the 14th ult.) vessels touching at ports in the Red Sea will be liable to quarantine of twenty-one days at Suez.

THE governors of the late Drogheda Infirmary have presented an address to their medical officer, Dr. John B. Kelly, on the closing of the institution in consequence of the loss of the Grand Jury Grant.

THERAPEUTICAL HYGIENE.—"I consecrated a portion of the earlier part of my professional life to pharmaceutical therapeutics, and my riper age to original researches in therapeutical hygiene. As they advance in life, young physicians will find, as I have done, that pharmacy does not keep good all its promises, and often will they have to recur to a wisely directed employment of hygienic modifiers."—*Bulletin de Thérap.*, August 30.

AN OLD "FELLOW."—In looking over the recently published "Calendar of the Royal College of Surgeons," we find some extraordinary illustrations of prolonged existence in several Fellows and Members, particularly in one of the former—Mr. Robert Hartle, of Trinidad, admitted a Fellow in 1844, and a Member so long ago as December, 1800. Presuming, therefore, that he was twenty-two, the then required age of candidates, he must now have arrived, or nearly so, at the great age of ninety-six years.

THE VIENNA UNIVERSITY, 1873-74. — During the scholastic year which has just closed, 7526 students were registered. Of these there belonged to the medical faculty, 1109 students during the winter session, and 1036 during the summer session. During the two sessions there were 194 new matriculations in the medical faculty. The respective professors had the following number of auditors:—Professor Brücke, 885; Hyrtl, 680; Langer, 555; Bamberger, 540; Billroth, 509; Dumreicher, 495; Duchek, 389; Rokitansky, 354; Braun, 225; Arlt, 218; Vogel, 157; Spaeth, 126; Sigmund, 94; and Meynert, 70.—*Wien. Med. Zeit.*, August 18.

ECZEMA OF THE BREAST.—Professor Hardy states that it may be laid down almost as an absolute rule that this occurs only under three conditions—during pregnancy, during suckling, or in women suffering from itch. So true is this, that if it be found in a woman who is neither pregnant or suckling, the existence of itch will always be found on searching for it. The eczema must be first cured, as the sulphuro-alkaline ointment employed for the itch would irritate the eczema, and retard its cure. Sometimes the eczema persists a long time after the cure of the itch and the disappearance of all the acari, and it may be the point of departure of outbreaks spreading towards other parts of the body.—*Union Méd.*, September 1.

POPULATION OF FRANCE IN 1872.—According to the official statistics just published, France in 1872 contained 35,362,253 French inhabitants and 740,668 foreigners. The French are divided as follows:—Born in the departments which they inhabit, 30,676,943; born in other departments than those which they inhabit, 4,543,764; Alsatians and Lorrainers who have "*opté*," 126,243; foreigners naturalised in France, 15,303. The nationalities of the unnaturalised foreigners are as follows:—Belgians, 347,558; Italians, 112,579; Alsatians and Lorrainers who have not "*opté*," 64,808; Spaniards, 52,754; Russians, 52,950; Poles, 42,834; Swiss, 42,830; Germans, 39,361; British, 26,003; Dutch, 17,077; Scandinavians, 7328; Americans, 6859; Austrians, 5116; Chinese and other Asiatics, 3843; Turks, Greeks, and Wallachians, 1173; non-specified nationalities, 9826.—*Union Méd.*, September 5.—[We have transcribed these numbers as given, although it will be found that they exceed the total of foreigners returned.]

ROYAL COLLEGE OF SURGEONS.—From the annual report of the receipts and expenditure of the College from Midsummer-day, 1873, to Midsummer-day, 1874, which has just been published, it appears that the income from all sources amounted to £16,596 5s. 11d., derived principally,

as might be expected, from fees received at the examinations for the diplomas of Fellow, Member, and Licentiate in Dental Surgery, amounting to £10,529 5s. Curiously enough, there does not appear to have been a single meeting for the Midwifery Licence. From rents and dividends the sum of £2088 13s. 10d. was received. Elections into the Council, Court of Examiners, Fellowship, and *ad eundem* Membership produced £210. The receipts from "Trust Funds"—viz., Erasmus Wilson £5000, Hunterian £1684, Gale's annuity £689, Jacksonian £377, Sir C. Blicke and Sir G. Blane £300 each—are put down at £247 8s. 3d. The expenditure amounted to £12,672 14s. 5d. Under this head the largest amount appears to have been paid in fees to members of the Council, Courts, and Boards of Examiners—viz., £4811 1s. 6d. For salaries and wages in the three departments of "College," "Museum," and "Library," the sum of £3760 19s. 10d. was paid—not an extravagant sum for the large staff employed. The pensions have decreased to £325 9s. 6d. The expenses of the brilliant *conversazione* to the members of the British Medical Association at its meeting last year in this metropolis amounted to £317 15s. 9d. The large sum of £1079 14s. was required for taxes, rates, and stamps, exclusive of postage-stamps. Expenses connected with the examinations—as patients, bandaging, refreshments, subjects, etc.—amounted to £224 14s. 2d. There appears to be the respectable balance to the good of £3923 11s. 6d.

HEALTH OF THE PUNJAUB.—The Sanitary Commissioner of the Punjaub, in his weekly return ending July 18 last, states that the decrease of mortality which began in the week ending June 13, 1874, and continued steadily to the week ending July 4, has ceased, as the returns of the present week show a slight increase; the total deaths have risen from 4777 to 4907. Though the increase is very general, the death-rate is not excessive in any district. There was no death registered under the head of cholera. The mortality from small-pox shows a slight increase; the total deaths under this head have risen from 315 to 380. The Ambálah district continues to suffer from the disease with special severity; 145 of the total number of small-pox deaths occurred in that district. The Karnál district also continues to suffer severely, and the disease evinces a tendency to spread in Hazára. Karnál is now the only large town in which it prevails to any serious extent. The efforts of the municipal committee of Amritsar to perfect the registration of births and deaths deserve special notice and acknowledgment. The following extract is taken from a letter received from the President of the Municipal Committee on this subject:—"Copies of the registration by-laws in Persian, Hindi, and Gurmukhi have been printed and distributed freely amongst the Mohalladárs and Lambardárs of the city, and omissions to register births, when discovered, are duly punished. During the last few months thirty-seven persons have been prosecuted for breach of the registration by-laws. For registration purposes each division of the city is in charge of a member of the committee, who occasionally checks the registers by making personal inquiries, and by observing if births and deaths occurring in his neighbourhood and within his own knowledge have been duly entered."

THE knife is here the chief instrument of self-destruction. During the year we have seldom been a month without one or more of such cases. The neck and abdomen are the places usually selected. Both sexes are addicted to this mode of wreaking vengeance one on another. It is not unusual to see patients with large knife-scars on the neck both before and behind. The latter are inflicted in quarrels. These are most common among beggars and the criminal class. Among the self-inflicted wounds was one of the abdomen, right across the stomach and liver. On the recovery of this patient, a merchant, a handsome tablet was erected with the laudatory inscription, "The Great Virtue of Rescuing from Imminent Death." One or two cases of this sort occurred among the insane. One of this class, while on a visit to a neighbouring town, and while under temporary insanity, hearing a fire alarm and supposing it to be a revolution in the city, drew a knife and made an ugly gash in his throat. The large deep wound gradually healed, and his soundness of mind seems returning. He was in the employ of one of the largest native druggists in this city. The assistants were entertained to a sumptuous breakfast on the completion of the cure. This is rather a frequent practice among the better-class patients after many favours received.—*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

CARIES continues to hold a prominent place at the dispensary. Large portions of the lower jaw have been removed. In one case, reported last year, from whom the whole jaw was removed, a scroll was presented to me bearing the laudatory inscription "*Saved Me Like the Returning Spring.*" The peculiarity of this tablet is, that the inscription was written by a man celebrated for his tongue-writing. The writing on the scroll explaining the cure, by whom and to whom presented, and how and by whom written, is done with the finger. These finger- and tongue-writings and finger-paintings are quaint and much admired.—*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Medicus.*—Would the gentleman who has kindly forwarded to us certain items of Irish news be good enough to favour us with his name and address, not for publication.

*A Member, Romford.*—The museum and library of the College of Surgeons will be reopened on Thursday, October 1.

*Mr. H. M., Kew.*—The late Mr. Scard, your churchwarden, was a Member of the College, and Surgeon to H.R.H. the late Duke of Cambridge, by whom he was much respected. His only son, also a Member of the College, died recently in Australia.

*Psychologist.*—We never recommend asylums. You will find a list, from which you might make a selection, in Messrs. Churchill's "Medical Directories."

*A Member of the Quekett Club.*—Mr. Stone, of the College of Surgeons, published a capital portrait of the late Professor Quekett. His widow died a year or two ago. The eldest son, we believe, is in China.

*A. Y. Z., Sidmouth.*—The "Students' Number" of the *Medical Times and Gazette*, published last week, will give you the desired information. Write to the Secretary of the College.

*Indore.*— "By mutual confidence and mutual aid,
Great deeds are done and great advances made."—*Homer.*

*Rahere, Exeter.*—No "introductory" will be delivered. Professor Rolleston, F.R.S., will preside at the old students' annual dinner on the 1st proximo. Write to Mr. Langton.

*An Old Subscriber.*—The "Confessions of a Dissecting-room Porter," which appeared in the early volumes of the *Medical Times*, were written by the late Mr. Albert Smith, M.R.C.S. Your wishes may some day be gratified by a gentleman still on our staff, and who has been so from the first number of its publication.

*Lithotomist.*—There are portraits of Edward Nourse, *primus* and *secundus*, in the library of the Royal College of Surgeons, as also, we believe, of Frère Jaques.

*Dr. Cassidy, Broadmoor.*—We are sorry we cannot find a more exact reference to the paper referred to.

*Alpha.*— "Thou shalt not kill, but need'st not strive
Officiously to keep alive."

*K. Corry.*—Under clause 1 of section 19 of the Sanitary Act, 1866, proceedings can be taken although only one family occupy a house.

*Tovey.*—Mr. Fairlie Clarke's paper on "The Use and Abuse of Hospitals" appeared in *Macmillan's Magazine*, April, 1872.

*D. O. T.*—*Ophthalmic Hospital Reports*, vol. iv., p. 315, 1865.

*Josephus.*—Dr. Guy, in 1862, published a report "On Alleged Fatal Cases of Poisoning by Emerald Green, and on the Poisonous Effects of that Substance as used in the Arts."

*Douglas P. F.*—Under the circumstances stated we do not think he is liable.

*Pye, jun.*—*Edinburgh Medical Journal*, 1862, p. 1017.

*Agonistes.*—It is difficult to suppose that any legislation will effectually check the progress of medical impostors. We agree to a certain extent with the views enunciated by our correspondent, but we fear that at present they cannot be carried out.

*Student.*—Dr. Korowin is the Assistant-Physician to the Children's Clinique of St. Petersburg.

*Gregory F.*—The deaths registered in Birmingham during last year were 8990, giving an annual rate of 24·8 per 1000. The deaths of infants under one year of age, during the same period, equalled 18·15 per cent. of all the births registered.

*A. J. A.*—The area of London—the registration district so-called—is 78,080 acres, or 122 square miles.

*Quis.*—Mr. F. W. Granger is the Medical Officer of Health for Cardiff.

*X. Y. Z.*—At Salmon's, 87, Wimpole-street.

*Pergamos.*—The Savannah Medical College, Georgia, United States, was founded in 1853. The charter of the College is ample in its provisions, and will confer on its graduates every privilege which any other institution is capable of granting.

*Mons.*—*Dublin Medical Journal*, vol. ix., p. 37.

*J. F. B., Dudley.*—"Surgical Anatomy of the Arteries," vol. ii., p. 137.

*S. R. O. C.*—The Royston Cottage Hospital was opened on June 9, 1870.

*Lynton.*—The Congress of the Social Science Association will be held in Glasgow from September 30 till October 7. There will be a sanitary exhibition.

*Selim.*— "If a better *system* 's thine
Impart it *frankly* or make use of *mine*."—*Francis.*

*R. C. A.*—William Caxton first introduced into Great Britain the art of printing. He in 1477, or earlier, carried on that art in one of the chapels in Westminster Abbey. A monument to his memory was erected by the Roxburghe Club, in 1819, in St. Margaret's Church, Westminster.

*Dr. G. C. J.*—Dr. Wilson's "Handbook of Hygiene," p. 33.

*Courteous* is thanked, but the article is unsuitable for our columns.

*V. V., Gosport*, must be more explicit before we can give an opinion on the subject.

*Cetian.*—March 11, 1871.

*A Partner* should avoid law. The point in dispute ought to be left to the decision of a medical referee.

*A Young Medical Officer* would have been quite justified, according to the circumstances detailed, in bringing the case before the committee.

COMMUNICATIONS have been received from—

Mr. Cutler, London; Dr. James P. White, Buffalo; Dr. H. J. Yeld, Sunderland; Mr. Harwood, Boston; W. H.; Mr. H. Hobbs, Hounslow; Dr. Boggs, Paris; Dr. R. W. Foss, Stockton-on-Tees; The Secretary of the Consumption Hospital, Ventnor; Medicus; Mr. Dexter, Peckham; Dr. J. C. Reeve, Dayton; Mr. J. N. Noble, Dundee; Dr. Marshall, Saltcoats; Mr. H. Lomas, London; Mr. A. Temple, Kington; Dr. W. Handsel Griffiths, Dublin; The Registrar-General, Edinburgh; The Registrar of the Apothecaries' Society; Dr. Beverley, Norwich; Dr. J. Parker, Tippecanoe; Dr. Stuart Eldridge, Hakodate; Dr. Haddon, Eccles; Dr. M. Moore, Coventry; Mr. Nelson Hardy, London; Mr. Brudenell Carter, London; Mr. J. H. Thomas, Bristol; Dr. B. W. Richardson, Eastbourne; Mr. J. Chatto, London; Mr. D. C. McVail, Glasgow; Mr. Dalby, London; Mr. Teevan, London.

BOOKS AND PAMPHLETS RECEIVED—

Da Costa on Strain and Over-Action of the Heart, being the third Toner Lecture—Mechanism of Reflex Nervous Action in Normal Respiration, by Austin Flint, jun., M.D.—Norcom on Hæmorrhagic Malarial Fever—Angell and Hehner on the Analysis of Butter—White on the Reduction of Two Cases of Chronic Inversion of the Uterus—Thompson on Free Phosphorus in Medicine—Edwards on Improved Fireplaces—Warnungsrufe Emige Rathschläge bei der leiblichen Erziehung uud Pflege der Jugend, von Prof. Dr. A. S. Alrich.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Australasian Medical and Surgical Review—El Anfiteatro Anatómico Espanol—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Bulletin Général de Thérapeutique—Students' Journal and Hospital Gazette—The Colonial Standard and Jamaica Despatch—Chicago Medical Journal—Boston Journal of Chemistry—New York Medical Journal.

## APPOINTMENTS FOR THE WEEK.

*September* 19. *Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

21. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

23. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

24. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

25. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, September* 12.

### BIRTHS.

Births of Boys, 1130; Girls, 1081; Total, 2211.
Average of 10 correspondiug years 1864-73, 2028·6.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 634 | 575 | 1209 |
| Average of the ten years 1864-73 | 675·3 | 661·5 | 1336·8 |
| Average corrected to increased population | ... | ... | 1470 |
| Deaths of people aged 80 aud upwards | ... | ... | 35 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Popula-tion, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 2 | 3 | 2 | 2 | ... | 1 | ... | 13 |
| North ... ... | 751729 | ... | 1 | 13 | 1 | 2 | 1 | 5 | ... | 17 |
| Central ... | 334369 | ... | ... | 14 | 2 | 1 | 1 | 2 | ... | 10 |
| East ... ... | 639111 | ... | 4 | 44 | ... | 4 | ... | 8 | 1 | 16 |
| South ... ... | 967692 | ... | ... | 13 | 3 | 4 | 2 | 1 | 1 | 19 |
| Total ... ... | 3254260 | ... | 7 | 87 | 8 | 13 | 4 | 17 | 2 | 75 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·605 in. |
| Mean temperature | 56·4° |
| Highest point of thermometer | 68·1° |
| Lowest point of thermometer | 45·9° |
| Mean dew-point temperature | 52·4° |
| General direction of wind | W.S.W. |
| Whole amount of rain in the week | 0·80 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 12, 1874, in the following large Towns :—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Sept. 12. | Deaths Registered during the week ending Sept. 12. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2211 | 1209 | 68·1 | 45·9 | 56·4 | 13·55 | 0·80 | 2·03 |
| Portsmouth ... | 120436 | 26·8 | 82 | 41 | ... | ... | ... | ... | 1·38 | 3·51 |
| Norwich ... ... | 82257 | 11·0 | 43 | 37 | 68·0 | 44·0 | 54·9 | 12·72 | 0·98 | 2·49 |
| Bristol ... ... | 192889 | 43·3 | 135 | 77 | 64·9 | 46·2 | 55·2 | 12·89 | 3·31 | 8·41 |
| Wolverhampton ... | 70896 | 20·9 | 61 | 45 | 65·3 | 43·6 | 54·4 | 12·44 | 1·13 | 2·87 |
| Birmingham ... | 360892 | 43·0 | 263 | 183 | 65·3 | 44·5 | 55·2 | 12·89 | 1·49 | 3·78 |
| Leicester ... ... | 106202 | 33·2 | 67 | 47 | 69·2 | 43·5 | 54·9 | 12·72 | 1·04 | 2·64 |
| Nottingham ... | 90894 | 45·5 | 57 | 43 | 66·1 | 43·1 | 54·5 | 12·50 | 0·61 | 1·55 |
| Liverpool ... ... | 510640 | 98·0 | 388 | 359 | 61·0 | 47·0 | 54·3 | 12·39 | 0·93 | 2·36 |
| Manchester ... | 355339 | 82·8 | 249 | 169 | 68·0 | 44·0 | 56·0 | 13·33 | 1·43 | 3·63 |
| Salford ... ... | 133068 | 25·7 | 109 | 79 | 65·0 | 42·9 | 53·7 | 12·06 | 1·31 | 3·33 |
| Oldham ... ... | 86281 | 18·5 | 87 | 44 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 119 | 89 | 63·4 | 46·2 | 54·0 | 12·22 | 0·86 | 2·18 |
| Leeds ... ... | 278798 | 12·9 | 285 | 139 | 64·0 | 45·0 | 54·7 | 12·61 | 0·66 | 1·68 |
| Sheffield ... ... | 261029 | 13·3 | 197 | 123 | 65·0 | 44·0 | 54·0 | 12·22 | 0·54 | 1·37 |
| Hull ... ... ... | 130996 | 36·0 | 120 | 68 | 68·0 | 44·0 | 54·5 | 12·50 | 0·63 | 1·60 |
| Sunderland ... | 104378 | 31·6 | 111 | 43 | ... | ... | ... | ... | ... | ... |
| Newcastle-on-Tyne | 135437 | 25·2 | 124 | 88 | 63·0 | 45·0 | 51·9 | 11·06 | 1·28 | 3·25 |
| Edinburgh ... ... | 211691 | 47·8 | 140 | 76 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 333 | 244 | ... | ... | ... | ... | ... | ... |
| Dublin ... ... | 314666 | 31·3 | 162 | 142 | 65·2 | 43·0 | 54·1 | 12·28 | 0·77 | 1·96 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5343 | 3345 | 69·2 | 42·9 | 54·5 | 12·50 | 1·13 | 2·87 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·61 in. The highest was 29·85 in. on Monday morning, and the lowest 29·30 in. on Wednesday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## CLINICAL LECTURES DELIVERED IN THE ROYAL INFIRMARY OF EDINBURGH.

By T. GRAINGER STEWART, M.D., F.R.C.P.,
Physician to the Royal Infirmary; Lecturer on Clinical Medicine and on the Practice of Physic.

## V.—ON SOME CASES OF NERVOUS DISEASE ATTENDED BY MUSCULAR TWITCHING.

(*Concluded from page* 228.)

The clinical history of this case seems to me to warrant a diagnosis of what French writers term "*sclérose en plaques disseminées*," the Germans "*Inselformige Sclerose der Hirn und Rueckenmarks*," and Dr. Hammond denominates "multiple cerebro-spinal sclerosis." This disease has only been clearly described within the past few years. It may be worth while, before describing its features, to indicate the contributions of various authorities towards its discovery. Cruveilhier(a) figured it in his Atlas, published between 1835 and 1842, and gave good examples, but did not differentiate it from other maladies. Carswell(b) in 1838 also figured it, but gave no special account of the symptoms during life. Frerichs(c) defined the disease as sclerosis of the brain, and in 1854 diagnosed it in the living subject. Türck,(d) in a paper devoted to a determination of the lines of conduction in the cord, described the disease in 1855. Valentiner(e) gave, in 1856, an important contribution to the clinical and pathological history of the disease. Between 1863 and 1865 Drs. Charcot and Vulpiau were making their observations regarding it. Charcot(f) made out the symptoms of the disease in the case of a servaut who had been for some years in his own employment, and who died in April, 1866. This observation was probably the most important in respect of clearing up the clinical history. In 1865 Zenker(g) published a case which he had observed in Professor Hasse's wards and examined after death under the direction of Professor Krause. In 1866 Dr. Leo's(h) case was diagnosed by Dr. Rühle on the strength of Frerichs' observations, and Dr. Leo described the case, clinically and pathologically, with great minuteness. Dr. Vulpian(i) described a case of his own and two others of M. Charcot. In 1868 Ordenstein(k) published his excellent account of paralysis agitans and of *selérose en plaques generalisées*. In the same year Drs. Morris and Weir Mitchell(l) published their account of the case of Dr. Pennock. In 1869 Bourneville and Guérard(m) published their standard work on the subject. Since then Schüle,(u) Leube,(o) Zenker,(p) Otto,(q) and Buchwald(r) have contributed interesting papers to the *Deutsches Archiv;* Jaccoud(s) has given his experience on the subject; and Drs. Hammond(t) and Meredith Clymer have published the results of their researches. Dr. Moxon,(u) of Guy's Hospital, records a very well marked case in which the diagnosis established during life was confirmed by examination after death. In his "Lecture on the Diseases of the Nervous System," published in 1873, M. Charcot(v) has given an admirable account of the malady.

I should like you to understand the anatomical characters of the disease. Scattered throughout the substance of the brain and spinal cord, rarely to be seen in the grey matter of the convolutions, oftener in the white substance of the hemispheres; still more frequently in the pons, cerebral peduncles, neighbourhood of the lateral ventricles, medulla oblongata, and the cord, are patches of dense tissue, sometimes white, sometimes pearly grey, or reddish-yellow, varying in size from the minutest point to several lines in length, depth, and thickness, varying also in number and in situation in different cases. On microscopic examination, these patches are found to be composed of increased connective tissue or neuroglia, with corresponding atrophy of the nerve elements. Towards the margins of the patches one finds abundant evidence of the fatty degeneration of the nerve elements; in the centres of the patches no trace of them is to be found.

The clinical history of the disease is pretty well made out. Bourneville and Guérard have distinguished three forms—viz., the cerebral, the spinal, and the cerebro-spinal. The last-named is the variety most commonly met with, and of it our case is an example. Charcot(w) divides its history into three stages: the *first* extending from the commencement of the malady to the period at which the patient becomes completely impotent in consequence of spasmodic rigidity of the muscles; the *second* extending from the time of the establishment of that condition to that of failure of the organic functions; the *third* extending from the development of the organic symptoms to death.

*First Stage.*—The disease begins in various ways. It may be with head symptoms, such as habitual giddiness, more or less diplopia, followed by interference with speech and nystagmus, and only at a later period do the great symptoms of jerking ou voluntary movement and paresis came on. More commonly spinal symptoms are first observed, and it may be that paresis is the earliest symptom. It may last for months or years, and the characteristic tremulousness and head symptoms may only appear at a late period. The invasion may be sudden, with giddiness and diplopia, weakness and jerking following a few days later; and the progress may be gradual, or advancing rapidly with apoplectiform attacks, with pain in the head, and hemiplegia. Charcot also says that gastric attacks may open the scene. This stage may last two, four, or six years.

*Second Stage.*—The sufferings are aggravated by the development of a new symptom—viz., spasmodic rigidity of the muscles,—with or without spinal epilepsy. The patient is confined to his room, or even to bed.

*Third Stage.*—This stage resembles the second, but has as its additional and characteristic feature the failure of the organic functions. Digestion fails; attacks of diarrhœa are frequent. Sometimes the patient cannot swallow; sometimes the breathing is interfered with. The mind also frequently becomes dull, and the faculty of speech is lost. The bladder becomes inflamed, and bedsores form. From any of these causes, from simple exhaustion, or from intercurrent diseases, death may occur.

The course of the disease is usually about ten years. The spinal form is much slower—may last twenty years.

In my opinion, our patient is suffering from the disease in its early stage. The points in the case which correspond to and those which differ from the type, we shall consider as we go over its features according to our usual method. First notice one or two points as to the history and general conditions. The age is somewhat below that of most cases. The disease is rare after thirty, most common between twenty and twenty-five. It has been seen at fourteen, fifteen, and seventeen, and in one well-known case recorded by Schüle(x) it began at seven and terminated fatally at fourteen and a half. Our patient is now nineteen; his earliest symptoms therefore occurred when he was thirteen.

The occupation and circumstances of the patient were unfavourable. A weaver, poorly clad and insufficiently fed, exposed to cold and often to damp, and obliged to work hard, although his constitution was originally delicate, his condition was in all respects unfavourable. There was no evidence of hereditary predisposition, and as masturbation had been indulged in only for a short time, and after his illness had commenced, it obviously cannot rank as a cause in this instance.

The mode of commencement of the disease was peculiar. Before the attack which proved permanent, he had two minor and temporary illnesses, the first commencing at the age of thirteen with weakness and trembling of the leg, which disappeared in a month; the second at the age of fourteen, the arms being weak and tremulous, the legs remaining free; the

(a) "Anatomie Pathologique," liv. xxxii., pl. 2.
(b) "Illustrations of the Elementary Forms of Disease," pl. 4.
(c) *Vide Deutsches Archiv für Klinische Medicin*, B. iv., s. 150.
(d) Quoted by Bourneville and Guérard, p. 15.
(e) *Deutsche Klinik*, 1856, No. 14; quoted by Ordenstein, "Sur la Paralysie Agitante," etc., p. 50.
(f) Bourneville and Guérard, *op. cit.*, p. 18.
(g) Henle and Pfeuffer's "Zeitschrift für Rationelle Medicin," 1865, p. 228.
(h) *Deutsches Archiv*, B. iv.
(i) *Union Médical*, Nos. 67, 68, 70, and 72, 1866. Abstract in Schmidtz' "Jahrbueh," 1866, vol. ii., p. 30.
(k) *Op. cit.*, Paris, 1868.
(l) *American Journal of Medical Sciences*, July, 1868; quoted by Hammond, "Diseases of Nervous System," p. 481, and Bourneville and Guerard, p. 76.
(m) "De la Selérose en Plaques Disseminées," Paris, 1869.
(n) *Deutsches Archiv.*, Bb. vii. and viii. (o) *Ibid.*, B. viii.
(p) *Ibid.*, B. viii. (q) *Ibid.*, B. x. (r) *Ibid.*, B. x.
(s) "Pathologie Interne," tome i., p. 188.
(t) Hammond on the "Nervous System," 4th edition. New York, 1873.
(u) *Lancet*, February 15, 1873.
(v) "Leçons sur les Maladies du System Nerveux," par J. M. Charcot. Paris, 1872-73.
(w) *Op. cit.*, p. 197. (x) *Deutches Archiv*, B. viii., p. 223.

third and permanent attack commenced at sixteen, and involved the whole body, particularly the right side. It was attended by well-marked cerebral symptoms—viz., dimness of sight, double vision, partial loss of speech, and giddiness. In the course of a month or two the head symptoms diminished, but the tremulousness and paresis became more pronounced. Such were the chief points in his case up to the time that he came under our notice. The facts we have now to consider were frequently the subject of our observation during the visits.

*Sensations.*—The only abnormal sensations complained of were giddiness and occasional headache. These are frequent symptoms, as are also double vision, formication, and feeling of numbness; otherwise it is unusual to meet with any. One of Vulpian's patients complained of a sensation of intense cold.

*Sensibility.*—Sensibility to touch, pain, temperature, and tickling was distinctly diminished in the legs. This is exceptional, but is occasionally seen. Bourneville and Guérard(y) met with analgesia in one case. One of Charcot's patients and one observed by Liouville had diminished sensibility and slow conduction.

*Special Senses.*—When our patient came under observation the diplopia had disappeared. His sight was certainly feeble, but the ophthalmoscope revealed no important change. The only eye symptom was nystagmus. There was no trace of this when he was looking straight forward, but when he looked to a side the twitching at once began. The eye symptoms with which you may expect to meet in such cases are—weakness of sight, either with or without atrophic changes in the disc; squinting, attended by double vision; and nystagmus. The last named is the most common. Even it, however, is by no means invariably present. It is interesting to notice how, in the sclerosis of the posterior columns of the cord (locomotor ataxia), the eye symptoms in some respects differ from, and in some correspond to these. In locomotor ataxia nystagmus is almost never seen, while myosis is common, the pupils being sometimes, as in a case now in my wards, reduced almost to the size of a pin's point. So much for the difference. On the other hand, the occasional and often temporary squinting, and the failure of vision with or without atrophy are common. The other special senses were in our patient as in most others, normal.

The *muscular sense* deserves special mention. It was quite unaffected. The patient was quite conscious of the position of parts, and could stand and walk as well with his eyes shut as open.

*Reflex action* was slow in the legs, but not jerky, as voluntary motion was. The slowness and imperfection with which it was evolved appeared to be due to the slow sensory conduction.

*Voluntary Motion.*—There was distinct diminution of voluntary power in the right side. He could not move his legs with vigour, stand without a support, or walk without a crutch. Paresis, almost amounting to paralysis, is common in the disease. But you will find that in some cases the muscular weakness is due mainly to the jerking action, sometimes to a defective power, and commonly in the more advanced stages to rigid spasmodic contraction of the muscles, or of groups of them. In our case the stage of rigidity is not yet reached; there is a true loss of muscular power. Sometimes, after one of the apoplectiform seizures to which some patients are liable, there may be a temporary or permanent increase of the paralysis.

The other motor symptom is the most characteristic feature of the disease. While the muscles were at rest there was nothing peculiar to be noted; but whenever an attempt at voluntary movement was made, a singular series of twitching or jerking movements was induced. This was well marked in the head, the arms, and the legs. When we asked him to drink some water, he sitting up in bed supported, and perfectly still at the time, would stretch out one hand to take the cup, but in doing so his hand was jerked about in all directions, and at last he would catch with a sort of clutch. Meanwhile he brought his other hand into play, and so soon as it began to move, a corresponding series of jerks was observed. Having caught the cup with both hands, he carried it towards his mouth, both hands jerking all the time, so that the fluid was spilt. Then the head was brought down to meet it. So soon as this action commenced, the head also began to jerk about; and at last, when the cup met the lips, the remaining fluid was gulped down. When we asked him to get out of bed jerking of the legs began and even when his feet were planted on the ground, they jerked with every attempt at walking or at balancing himself.

This is, as I have said, the great symptom of the malady: *tremulousness of the muscles only appearing during voluntary effort.* It is not absolutely, but nearly, pathognomonic. Charcot remarks that it sometimes occurs in mercurial poisoning, in chronic cervical meningitis with sclerosis of the surface of the cord, as well as in sclerosis of the lateral columns. Moreover, he remarks that it is not always present in this disease, and perhaps it may be found not to be present in every case. Notice the difference between the tremulousness of this patient and that of the old man whom I lately brought before you suffering from paralysis agitans. You have seen how in that disease the jerkings occur when the patient is making no effort, and are even, to some extent, under the control of the will. In the present case you see that they appear only when he attempts a movement. The character of the jerkings also differs, for in the sclerosis they are less rapid, less regular, and less continuous than in paralysis agitans. A careful observer should scarcely confound them.

In what respects do the jerkings of our patient differ from those of chorea? The choreic patient is never quite still. If you sit watching him you observe a twitching of the face or of the hand apart from all voluntary effort. The sclerotic patient preserves his hebetude of expression, undisturbed by any tendency to grimace, and his arms do not jerk unless when he sets them in motion. As to the jerkings themselves, Charcot(z) remarks that they are very different in the two diseases. In the act of carrying the hand to the mouth, for example, one finds in sclerosis the general direction of the movement persist in despite of the movements occasioned by the tremulousness; while in chorea the general direction of the movement is hindered by movements absolutely contradictory, and of a disproportionate amount, which lead to missing the aim.

It is not at all likely that sclerosis in patches should be confounded with locomotor ataxia, but it is of some interest to point out the characteristic differences between them. The condition of the muscular sense, as manifested by the staggering which results from closing the eyes, is very characteristic of the locomotor ataxia. The absence of jerkings upon voluntary effort is also very important. But if you watch an ataxic patient whose arm is affected grasp a small object, you will notice a peculiar irregularity of movement and want of control of the muscles, which make it difficult for him to grasp a small object at first, and when he does succeed in doing so it is only with an awkward clutch. Still, it is very different from the clutch following upon jerkings which characterise the disease we are now considering.

As to the date of commencement of the jerkings, it must be noted that in our patient they were exceptionally early. Sometimes it is three months after the earliest symptoms, sometimes six or eight, sometimes several years. That is obviously according to the situation of the earliest developed sclerotic masses. The bowels were constipated; but there, as in the *bladder*, there was no defect either of expulsive power or of the sphincters. There was no local symptom connected with the spinal cord.

As to the *cerebral functions*, the mind was certainly not acute, but the memory was good. The expression of the face was somewhat stupid, with a peculiar hebetude of expression, such as one often sees in cases of cerebral tumour, and rarely or never in locomotor ataxia. The mode of speaking was peculiar. While under observation there was no aphasia, but the voice was singularly monotonous, and the utterance syllabic. This peculiarity is worthy of special note. It is sometimes much more distinct than it was in our case.

There are two features not exhibited in the meantime in our patient's case, but which I cannot pass without notice—viz., spinal epilepsy and the apoplectiform attacks. The former consists in the occurrence of violent jerkings in the affected muscles arising under certain excitations. The latter occurs, according to Charcot, in about a fifth of the cases, sometimes recurs pretty frequently, and sometimes leads to a fatal termination. These attacks resemble the so-called congestive seizures of general paresis of the insane. They are usually sudden, and may leave behind them a temporary or permanent paralysis of one side or other part, or temporary or permanent aphasia. They may be attended by convulsions.

If our diagnosis was right, as I certainly think it was, our prognosis must be unfavourable. We must anticipate

(y) *Op. cit.*, p. 117.

(z) *Op. cit.*, p. 203.

a gradual increase of weakness; perhaps, as often happens in the disease, a temporary improvement may take place, but it will be followed only too surely by a return. We must expect also an increase of the jerkings, a gradual decline of muscular power, or it may be a decline precipitated from time to time by apoplectiform seizures. Thereafter, if life be prolonged, we must expect the stage of rigid spasmodic contraction and consequent paralysis, and to that there must be added failure of the organic functions and a fatal result.

*Treatment* of various kinds was tried, but without material benefit. He took various nervine tonics and sedatives; electric currents were passed in the line of the nerves, through the muscles and also through the head; but none of the means employed seemed to me of any real service.

## ORIGINAL COMMUNICATIONS.

# CASES OF OBSCURE NERVE DISORDER.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

(*Continued from page* 231.)

*Case* 2.—*Paraplegia Superior, probably from Softening of Cord from Arterial Obstruction.*

Cath. R., aged forty-seven, cook, admitted June 27, 1873; of spare make, dark hair. Ill about four months without any known cause. She first found the left hand getting weak; the loss of power gradually extended up the arm, and increased; it was three or four months before it was as great as it is now. The left arm is wasted, and looks evidently smaller than the right. The right measures over the middle of biceps nine inches, the left eight inches and a half; the right forearm two inches below the elbow measures eight inches, the left at the same level seven inches and a half. The muscles of the right arm contract pretty well with faradisation, except the triceps and deltoid. The deltoid of the left arm does not contract at all, the biceps very little, and the triceps; the flexor muscles on the anterior aspect of the forearm contract better. She cannot lift anything, cannot abduct her left arm, cannot extend or flex either arm against a moderate resisting force. No pain felt on pressing upper dorsal or cervical spines. Her back feels weak when she walks. Her legs are not weak. Her hands are apt to get very cold in cold weather. Has nothing to do with lead as far as she knows. The gums of the lower jaw are spongy, with a shade of blueness. Her health is generally good, except that she is subject to severe bilious attacks. Her urine is alkaline, with a pellicle on the surface. Her maternal grandfather died of a paralytic stroke. Has five sisters living; four are well, but the fifth has palsy, she thinks. Bowels are very irregular; appetite good; sleeps well. The optic discs were well defined and fairly normal, the arteries not very apparent, the veins full and dark. There was a white elevation at the spot where the vessels emerged.

July 10.—Both arms very weak. The least force is sufficient to extend or flex the left against all her efforts to resist. The right arm is a little less weak. The muscles contract to faradisation. She was treated with strychnia, the dose increased from one-twentieth to one-twelfth of a grain, but no notable improvement ensued. My notes are defective in not recording the state of the sensory function in the arms, but I think I can be sure there was no material alteration; certainly there was no complaint of pain or other dysæsthesia. Probably, as is so often the case, the faculty remained pretty normal. The pathological change was probably degeneration of the nerve-cells of the grey matter in the brachial enlargement. This process may have been primary or consecutive to atheroma or thrombosis of the vessels. Some evidence existed of hereditary tendency to disease of the nervous system. The entire absence of spasm affords some ground for concluding that the lesion was not of the nature of sclerosis.

*Case* 3.—*Functional Paralysis of Left Arm—Tonic Treatment—Recovery.*

E. B., female, aged twenty-two, admitted February 29, 1872. Ailing since last Christmas; got a sore throat; felt languid and weak and unable to work. Left hand got numb five weeks ago; fourteen days later she began to have pain in the left elbow and shoulder, and soon after that all the power seemed gone from the limb. A week ago she could not move the arm at all for several days. A sort of hysterical fit occurred before she quite lost the use of her arm, and she felt numb all over. Left knee was stiff about fourteen days ago, but the stiffness has now quite gone off. She can move the arm in any direction, but feebly; cannot grasp at all. The left arm seems to be of the same size as the right. Left over biceps measures nine inches and a half, right nine inches and two-thirds; left forearm measures eight inches and a quarter, right eight inches and a half. The flexors and extensors of the left arm act fairly well to faradisation. The left hand feels numb to her, but she has fairly good sensation in it. Has been overworked. Much headache at times. Lost the use of both her knees for six or eight weeks when she was twelve years old. Sleeps badly; feels low and sinking and restless; is not anæmic; catamenia not quite regular; bowels very costive; pupils large; pulse rather weak; tongue pretty clean. S. diet—fish and egg; port ℥iij. Strychniæ gr. $\frac{1}{24}$th, acidi nitrici ℥ij., spt. chlorof. ℥x., aq. ℥j., ter die.

March 9.—Hand is stronger than it was, but still the grasp is very feeble. If she tries to use the arm, the numbness, which is always present in the fingers, extends up the arm for a few minutes. Appetite better. Ammon. carb. gr. iv., tinct. valerian ℥j., inf. valerian ℥j., ter die.

11th.—Urine strongly acid; not albuminous.

21st.—Can hold my blotting-book out a little with her left arm, but the muscular power is very feeble; the hand and arm tremble much. Says she is improving. Ferri carb. sacch. gr. xx. ter die. Pt. c. mist.

28th.—A skilled observer asks me if there is not some hysteria in the case, which he has been galvanising since her admission. The amendment is rather slow. She keeps the limb a good deal wrapped up and motionless by her side. Ordered to have a cold plunge-bath every morning, and to exercise the arm more than she has hitherto done.

April 4.—Is much better: can do needlework now, and give a good squeeze with her hand. Says she finds her arm much stronger. Her hand trembles much when she elevates it.

8th.—Numbness still affects the tips of the fingers, but the hand and arm are much stronger; skin clammy; the left hand perspires very much more than the right. Omittur mist. et pulv. Ferri et quin. citrat. gr. xij., tinct. nucis vom. ℥x., aq. ℥j., ter die.

15th.—Her arm is now almost quite recovered; the numbness is very much less than it was, but still is experienced slightly at the tips of the fingers. Head perspires less.

18th.—Goes out fairly well. Can carry trays with plates and mugs.

*Remarks.*—In the foregoing case we have a history of early failure of nervous power in the loss of the use of both knees at the age of twelve; also of overwork, of catarrh two months before admission, of headaches, of an hysterical fit when the paralysis was coming on, and of general languor and sinking. Her *vis nervosa* was evidently, and probably had long been, below par. The arm paralysis must be ascribed, I think, to a local defect of certain nerve-cells situated in the left brachial enlargement. The exemption of the face and tongue, which is so usual in cases of this kind, and which, I believe, existed here, renders it probable that the defect was situated below the origins of the facial and hypoglossal nerves, most likely in the locality already indicated. The left hand sweated much more than the right, indicating vasal nerve paralysis on that side. Recovery took place under a tonic *régime*. Galvanisation was employed, but could not be said to have accomplished much. The cold plunge-bath seemed more efficacious. This case was undoubtedly one of so-called hysterical paralysis. Without discussing just now the exact meaning of this epithet, we may say that it excludes all sorts of manifest lesions, and that it may be considered equivalent or nearly so to "functional." If the genuineness of the paralysis in this instance is admitted—and I do not doubt it myself,—then it follows that motor nerve-cells may lose to a great extent their faculty of evolving force, although they are fairly supplied with blood and have not been demonstrably damaged. Such paralysis is admitted as a sequel of epilepsy or an attendant on chorea, but is usually of brief duration. Here, though incomplete, it continued several weeks. To such cases the defective volition theory is commonly applied, but I think often unjustly, especially where causes of depression have been operating for a long time.

*Case* 4.—*Seizures of Epileptoid Character—Hemiplegia of long duration—Temporary Deafness—Improvement.*

M. A. C., aged twenty-two, female servant, admitted Feb-

ruary 26, 1873. Felt unwell four or five weeks ago for the first time. She was sitting by the fire, when suddenly she felt a shock in her left side, which lasted about fifteen minutes. A week afterwards she felt dizzy; on trying to rise from a chair she found the whole of her left side almost powerless; she had great difficulty in standing upright; her mouth was drawn slightly to the left side. She had had much sitting up at night. When I saw her there was no power of grasping in the left hand, no power of flexing or extending the forearm at the elbow; but she could raise the arm at right angles to the body. There was no facial paralysis, or very little; she could whistle. She could use her left leg in walking, but it was not at all strong; when she walked she slid the foot along the floor, bending the knee a little. Sensibility was not impaired in the left arm and hand, or leg. She complained of being very nervous and excitable, and subject to headaches. Catamenia were regular, but scanty; bowels regular. She was much frightened by being faradised at first, and made such a fuss that I expressed an opinion not very favourable of her *morale;* but she soon got used to it, and about six weeks later asked to have it again instead of the continuous current, which she thought was less beneficial. She was also well conducted in the ward, and gave no unnecessary trouble. She made great efforts to do what she was desired in the way of moving the arm, and seemed really anxious to get well. My opinion, therefore, was soon changed. I mention this, that you may see how easy it is to fall into error if you judge hastily in a case of this kind.

On March 12 it was noted that she did not bend her knee in walking; the foot was raised apparently by an elevation of the whole limb, then brought down flat.

May 2.—The left foot is now carried outwards in walking, circumducted, as in ordinary hemiplegia; the foot is planted flat, not trailed, or the heel is a little raised, and the toes rested on the ground.

By March 24 she could squeeze hard with her left hand, and could raise her arm above her head; but with much ado she could only just bring her left hand to her mouth by lowering her head. On April 10 the arm was in the same state; she could flex it but partially at the elbow, using her utmost efforts, during which the other muscles became rigid.

The power of flexing the elbow slowly improved, and was considerably better before she left the hospital, about May 15. A fortnight previously the left upper arm measured eight and a half inches, the right nine and a quarter inches; two inches below the elbow the measurement on both sides was eight inches. No facial, or lingual, or sphincter paralysis was observed.

The optic discs examined on May 3 appeared fairly normal. On March 12 it is stated that she cannot see so well with the left eye as with the right; she shut her left eye if she wanted to see clearly. The movements of the two globes were very nearly if not quite harmonious, but there was some unsteadiness in the lateral movements—an occasional arrest. The pupils on admission were largish, but acted.

On April 10 the left ear was so deaf that she could not hear the watch touching the auricle; could hear fairly well with right. The deafness came on with the existing disorder; she had had no discharge from the ear. By May 3 the deafness seemed to have disappeared.

During March she complained of headaches for some days. On May 1 she got a feeling in her head like what she had the first day she was ill; lost her eyesight for two minutes; could see nothing at all.

*Remarks.*—There were some features in this case which gave it an aspect of hysterical paralysis—viz., the age, the sex, the trailing of the leg at first, the absence of facial and sphincter paralysis, and to some extent the temperament. The seizure from which the paralysis dated was, however, suggestive of a small hæmorrhage in the right corpus striatum, or possibly of a vessel becoming obstructed. Thrombosis may certainly have occurred, but embolism is unlikely, as I believe there was no valvular disease of the heart, though unfortunately the point is not mentioned in my notes. The long duration of the paralysis (over three months) argues against its being the result of an epileptic attack. Yet the force of this argument is attenuated by a case to be presently detailed, where evident epileptic paralysis lasted quite as long. Moreover, the recurrence of a seizure like the preliminary ones, but attended with temporary blindness, points decidedly in the direction of epilepsy or hystero-epilepsy. The temporary deafness, also, is more like a sequel of this kind of derangement than of organic lesion. The absence of optic neuritis adds also something to the evidence in favour of epilepsy, and so does the history of overtaxed nervous system from sitting up at night. The non-impairment of sensibility in the paralysed arm indicates central defect rather than peripheral, but might occur in functional as well as in organic disease. The weight of evidence, on the whole, seems to preponderate in favour of the non-organic nature of the disorder, but a positive diagnosis can hardly be made. The aim of the treatment pursued was to recreate nerve-force. Phosphorus was given for the first fourteen days—one-fortieth of a grain ter die,—and she was faradised daily for a month. Galvanism was then employed for a week, and afterwards faradisation resumed. Carbonate of iron with bark and ammonia, valerian with ammonia and aloes, iron and myrrh pill, citrate of iron and quinine, and conium with the shower-bath, were other remedies used, and certainly appeared beneficial. To these may be added snuff, which, taken as a sternutatory, seemed "to do her head good."

*Case 5.—Frequent Epileptic Attacks—Cessation of Catamenia—Paralysis of Right Arm of long duration—Use of Galvanism.*

E. W., female, aged sixteen, servant, admitted September 27, 1872. Has been ill nearly four months; has been out-patient during three. Catamenia first appeared when she was thirteen years and a half old, but ceased seven months ago. Has pain in her loins. Her first symptom was a fit, which came on suddenly, and recurred frequently; she would have two or three nearly every day. After she took some medicine the fits became less frequent. She has had three this week. The longer she goes without the fits the longer she is in them when they come on; the longest time they have lasted has been an hour. Has spit up some blood; did so last night, and two or three times last week. Breath-sounds normal; heart-sounds rapid, but clear. Bowels regular. On the night of the 28th she had a fit, in which there was bleeding from the mouth; sopor succeeded the convulsions, which did not last long. On the 30th, in the morning, she had another fit, in which she did not struggle at all, but was rigid; she was sitting on a locker, talking, when it came on without any warning, and she fell straight on the floor; did not recover consciousness for twenty-five minutes. Urine not albuminous; uterus normal; she looked well. She was ordered K. Br. ter die in doses increased from twenty to thirty-five grains. After six days, as the fits were occurring at the rate of one or two a day, succus conii ʒiij. ter die was substituted; and as there was occasionally a very slight catamenial show, ol. sabinæ was given in pills.

No improvement resulted, and on November 2 the report was that she continued to have fits every day. In hope of inducing the catamenia four leeches were now ordered to be applied to the cervix uteri, and ℥x. tinct. belladonnæ to be given ter die. The pupils were not readily dilated by atropine, but when this was effected the fundus of the eyes was found almost or quite normal. The result of the leeching was rather formidable. She remained fairly well for nine hours and a half, then had a slight fit, and a second one hour and a half later. In this her jaw, instead of being clenched, dropped; she did not struggle, but lay and moaned; her eyes were quite insensible to touch, but she was able to swallow; her pulse was so weak that the house-surgeon thought she would die. This fit lasted one hour. Fits continued to recur during the whole night; one lasted two hours; she seemed to pass from one into another, and was unconscious all the time.

November 4.—About 2 p.m. she was in her usual state, only her head ached, and she felt dull; urine pale, feebly alkaline. The following night she had a fit lasting two hours and one-third, and one slighter for twenty minutes the next morning. No sign of wisdom-teeth. She was now ordered boracis glycerinii ʒj., pot. iod. gr. iij., aq. ʒj., ter die.

14th.—To have one-sixtieth of a grain of atropine subcutaneously o. n., and ferri carb. sacch. gr. xv. ter die.

18th.—Fits have recurred mostly every other day, always in the morning. Has much less stupor after them than she used.

On the 23rd she was complaining of headache, and seemed drowsy; had lost the use of her right arm—it fell as an inert mass; she could hardly move the fingers. One-fiftieth of a grain of atropine had been injected the last two nights. The atropine was left off, and as on the 25th the paralysis continued, and the head was painful at the anterior part of vertex, and very decidedly tender on pressure, a blister was applied to this part. The optic discs on the 26th were entirely normal.

December 2.—Has been galvanised twice (November 29 and 30), one pole—the positive—applied to cervix uteri, with the

result that the catamenia have appeared freely. Pain was experienced on the 30th in lower part of abdomen.

5th.—Paralysis of arm continues; leg not at all affected; fits occur every other morning.

7th.—Another symptom has appeared—viz., sickness after all food; immediately after. Chloral gr. xv., pot. bromid. gr. xxx., dec. cinch. ℥j., ter die.

16th.—Fits recur. I witnessed one. The palsied right arm was quite flaccid, but both legs and left arm were very rigid; pupils were of medium size; she seemed quite unconscious.

19th.—Can move fingers a little.

30th.—One or two fits every day; one on the 28th lasted four hours. The dose of K. Br. has been raised to ʒ j. ter die, but now extr. ergot. liquid. ʒ j. ter die is substituted.

January 6.—She looks wonderfully well, but there is no improvement in the fits or the palsy. Intellect has not been at all impaired by the fits; their reality seems proved by the fact that in several she has fallen so as to hurt herself, and the surface of the eye has been found quite insensible.

14th.—Only one fit since last date. Argenti nitratis gr. ⅓rd in pil. ter die.

20th.—Temperature in left hand closed 34·8° (94·6°), in right 35·8° (96·4°). Muscles of paralysed arm not wasted; act well with faradisation. She cannot move the arm or the fingers the very least, and the skin of arm and hand is quite insensitive to contact and pricking, but is slightly to electricity; the muscles of the arm are not at all wasted. No paralysis of face.

28th.—When ice is applied to the right hand, forearm, upper arm, and shoulder, no sensation is evoked until the lower part of the neck is reached; then she feels the cold acutely. The breast is sensitive, and the forehead.

February 3.—Four fits in last week, including one she is in now. The pupils are dilated.

6th.—Can move fingers a little, and arm. Ammon. carb. gr. v., tr. valerian ʒ j., inf. valerian ℥j., ter die.

10th.—Power of arm much improved; she can hold it out horizontally, though with some tremor of the hand. Zinci sulphat. gr. ij., assafœtidæ gr. v., ft. in pil. ij. ter die.

13th.—Had an attack to-day of violent palpitation of heart. She seemed as if she was going to have a fit, but she lay down and the disorder passed off.

17th.—A fit every day last week. Has regained much power in arm; can keep it raised above her head, but squeezes very feebly. Catamenia have reappeared; there was a show about January 1 for three days.

21st.—Had an attack yesterday while being galvanised. Her heart beat at a prodigious rate.

27th.—Fits still recur. Discs are normal. Made outpatient.

March 13.—Came to hospital. Had had no fit for three weeks; had regained the use of her arm pretty well. No catamenia since she went out.

*Remarks.*—The pathology of this case is pretty clear so far as this—viz., that the fits were genuine epileptic and not hysterical, and that the arm-paralysis was the result of the fits, and not of organic lesion. But what was the cause of the fits? I have inexcusably omitted to note the existence or absence of hereditary tendency; but, admitting this as a probable promoting cause, it could hardly, I think, in this instance have been the principal. Cessation of catamenia seems a possible exciting cause, for the fits commenced after three months' suspension, and their reappearance was succeeded by a cessation of the fits for three weeks, and perhaps more; yet, *contrà*, no such improvement followed the restoration of the flow by galvanisation. The alarming effects of leeching the cervix uteri, the great intensification of the fits, suggests another view—viz., that the uterus was indeed the starting-point of the epilepsy, but not because its bloodvessels were congested for want of the periodic evacuation, but rather because of some such morbid state of the uterine nerves existing as is implied in the term hyperæsthesia. It is a fact that such morbid states may arise in various localities, and produce very remarkable nerve-disorders. The results of the application of leeches can hardly be otherwise regarded than as the outcome of excessive uterine irritation. The possibility of the fits being the result of wandering wisdom-teeth was considered, but there was no evidence to show that they were exerting injurious pressure. The sensory paralysis accompanying the motor is more indicative, I think, of functional than of organic disorder, especially when so complete as it was in this instance. The fit of violent palpitation seems to have been the equivalent for an ordinary though mitigated convulsive seizure. The term "uterine epilepsy" does not seem to me inappropriate to such a case as this, inasmuch as it expresses concisely that which is most important to know—viz., where the disorder had its starting-point.

*(To be continued.)*

## THE CAUSE OF PULSE DICROTISM.

By D. C. McVAIL, L.R.C.P. Edin.

When, some months ago, I addressed you on the subject of pulse dicrotism, it was maintained in opposition to my views that the elastic recoil of the vessel-wall has at most but a subordinate part in the production of dicrotism; that it is not so much to elasticity as to elasticity combined with distensibility that the phenomenon is due. In this way distinctions are drawn between certain bodies as being elastic merely, and others which, besides being elastic, are also distensible. Such a distinction is perfectly arbitrary and artificial, as every body is distensible within its limits of elasticity, and any distensibility beyond this concerns us not. The distinction is not between elasticity and elasticity combined with distensibility, but between those bodies which have wide and those which have but narrow limits of elasticity. The arteries and indiarubber tubes are elastic within very wide limits, while tubes of steel or glass are elastic only within narrow limits, their points of fracture being soon reached. With tubes of the latter materials no vibrations measurable by the sphygmograph would be obtained; to effect their registration an apparatus infinitely more delicate must be employed. And so the argument here indicated—that since elasticity is common to all kinds of tubes, and not all kinds of tubes would yield dicrotic waves, therefore they are not due to elasticity—breaks down; for, given sufficiently great limits of elasticity, limits at all comparable in extent to those of the arteries, and dicrotism will certainly be forthcoming.

In support of this position I was referred to an experiment of Marey's, where, with the same elastic tube, the degree of dicrotism varied with the density of the contained fluid; and thence it was assumed that, the elasticity being constant while the dicrotism varied, the latter could not be due to the former. This experiment is given by Marey when he is endeavouring to prove that the secondary oscillations originate by reflexion at either end alternately, the first and greatest of them being an echo from the peripheral end; and, just as a pendulum with a very heavy bob would record on a plate moved by clockwork more ample secondary vibrations than a pendulum with a much lighter bob would do, so when Marey filled his tube with water, he in like manner got greater movements than when it contained air, and when with mercury greater still than with water. Indeed, he might have stated the matter quite convincingly enough without experiment at all. But in the discussion as to the cause of pulse dicrotism all this goes for nothing, as the dicrotic wave has no peripheral origin—which in this experiment it most certainly had—but appears in succession from the centre outwards; something which has actually taken place near the centre before the primary wave has reached the periphery. As evidence on the point in dispute this experiment is out of court altogether.

Electricity is defined by Deschanel as the term used to denote "the property in virtue of which a body tends to recover its form and dimensions when these are forcibly changed." Thus it matters not whether the molecules be compressed, as in the case of the ball, or have their interspaces augmented, as when a tube is distended,—they return to their positions of rest in virtue of one and the same property. Not only is the name elasticity common to both, but the quality denoted by the name is, so far as our knowledge yet goes, also one and the same.

Speaking more definitely of my opinion of the cause of dicrotism, it has been said—"If the lateral oscillation took place in each small transverse segment of the tube independently, it could then only occur by compression of the fluid, which is almost incompressible"; but yielding is allowed in consequence of the distensibility of the envelope in other parts. This is, of course, the only possible explanation, whatever be the agency to which the narrowing of any particular segment is due, for the blood being practically incompressible, room must be made for it elsewhere.

The January number of the *Glasgow Medical Journal* contained a paper to which I have elsewhere referred as having been read before the Glasgow Medico-Chirurgical Society, and which discusses pretty fully the elasticity theory of dicrotism.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## THE VICTORIA-PARK HOSPITAL.

### CASES OF INTRA-THORACIC DISEASE.

[Communicated by Mr. G. C. Franklin, Resident Medical Officer.]

*Case* 1.—*Aneurism of Arch of Aorta, Rapidly Fatal from Sudden Dyspnœa.*

(Under the care of Dr. PEACOCK.)

J. E., HAIRDRESSER, aged 31, was admitted on February 24, 1872, under the care of Dr. Peacock. Patient stated that he lost his voice suddenly about six months before, and had never entirely recovered it. Had been compelled to leave his employment for six weeks on account of weakness, shortness of breath, and cough. There was no history of previous illness or of syphilis. He was sent to the hospital as a case of early phthisis.

*State on Admission.*—Dulness at left apex; abortive laryngeal sounds; no stridor. No view of larynx could be obtained, owing to irritable fauces. General condition fairly healthy.

March 25.—Systolic bruit heard at centre of sternum below left clavicle and in left supra-spinous region; no difference in radials; no stridor; loss of tactile fremitus over the dull area at left apex. Respiration deficient throughout the left chest.

27th.—Attacks of dyspnœa on and off during the night. Pain first complained of in the left side, and shooting down the left arm.

April 6.—In addition to former signs, there is now œdema of left arm, and the cutaneous veins are prominent. Heart-sounds modified; apparent loss of first sound, and a double second sound at base.

8th.—Pain of side less acute. The œdema has disappeared. General condition less healthy.

15th.—No return of pain. Very restless at nights, and attacks of dyspnœa on waking.

18th.—After a more comfortable night than usual, patient was seized to-day with most horrible dyspnœa, became rapidly cyanotic, and died in about twenty minutes from the beginning of the attack. No specific treatment was adopted.

At the autopsy a small aneurism, an inch and a half in diameter, was found in the concavity of the arch of the aorta, compressing the left bronchus and left recurrent laryngeal nerve.

This case shows the difficulty of diagnosis in the early stages of aneurism.

*Case* 2.—*Pulsating Tumour of the Chest (Aneurism)—Rapid Disappearance of Tumour, and Relief to all the Symptoms—Discharged at own request, after Six Weeks' Treatment—Sudden Death from Rupture of Aneurism two months afterwards.*

(Under the care of Dr. WARD.)

W. A., aged 36, was admitted April 11, 1872, under the care of Dr. Ward.

*History.*—Had had rheumatic fever sixteen years before; no syphilis; winter cough for four years. Two months before admission he "strained himself," and was seized with pain and dyspnœa for a few minutes. He was then free from dyspnœa for five weeks, when he sought advice for epistaxis.

*State on Admission.*—Patient is a powerful, well-built man. Is cyanotic, with the physical signs of capillary bronchitis. In addition, on the right side, at the junction of the second costal cartilage with the sternum, and to the right of it, a distinct circumscribed pulsating tumour was observed. Dulness absolute over pulsating area; resonance impaired over upper part of right chest, and respiration less free. Tracheal stridor marked over spines of lower cervical and upper dorsal vertebræ. Heart's apex in sixth interspace, between nipple and axillary lines. No bruit over heart or tumour. Systolic whiff in neck; more distinct on right side. Pulse of right radial artery smaller than the left. Pupils equal. Voice not affected; vocal cords move readily. Has lost flesh recently.

April 23.—Cough better. Dyspnœa less urgent. Pulsation of tumour much diminished. General condition improved.

May 23.—Discharged at own request. There is now no external evidence of aneurism, the tumour having disappeared, together with the bronchitis. He returned to work, in opposition to Dr. Ward's advice, and was seen now and then as an out-patient. The local signs remained unaltered. Two months afterwards his wife came up to say that he "had died in a minute," having brought up a large amount of blood without previous extra exertion. No post-mortem examination could be obtained. During his stay in the hospital the following treatment was adopted:—At first the usual remedies for bronchitis, afterwards steel and tincture of digitalis. An ice-bag was kept applied over the tumour, and absolute rest enjoined throughout. The comparatively rapid disappearance of the tumour and freedom from pain (so that he felt himself able to return to work) suggested the possibility of an error in the diagnosis of aneurism. The diagnosis was, however, borne out by the manner of death.

(*To be continued.*)

## UNIVERSITY COLLEGE HOSPITAL.

### CASES UNDER THE CARE OF MR. CHRISTOPHER HEATH.

For notes of the following cases we are indebted to Mr. Godlee, M.S., Surgical Registrar:—

*Case* 1.—*Strangulated Hernia; reduced by an Instrument-maker en bloc—Protracted Constipation and Vomiting—Operation for Relief—Bowel Gangrenous—Subsequent Rupture—Peritonitis—Death.*

S. B., aged thirty-seven, draper, was admitted on January 28, 1874.

*History.*—Fifteen years ago patient was ruptured in moving a heavy box. Since that has always worn a truss, which kept the hernia up. His bowels have always been somewhat relaxed, acting generally twice a day. On Monday morning, January 26, he was in perfect health, when unfortunately in the afternoon his truss, which for some time had been getting out of repair, gave way, and almost without his knowing it some of the bowel came down. He went into the closet and reduced it as well as he was able, and patched up the truss and walked straight to the instrument-maker's in Tottenham-court-road, supporting the tumour with his hand, which kept it from sliding into the scrotum. During this walk he felt extreme pain on the inner side of the groin (rather higher up than the groin), and when at the instrument-maker's fainted two or three times with the pain. This man reduced the tumour for him after some difficulty, and set his truss to rights. He was sick while there, and has been sick about every two hours ever since. The tumour was not down more than three hours altogether. After his arrival at home he sent for his own doctor, who gave him some medicine, which, however, the patient always brought up as soon as he swallowed it. This state of pain and constipation continuing, he advised him to come into the hospital. Urine very high colour; uric-acid staining at the bottom of the chamber-pot. Patient says that the contents that came down this time were different from the ordinary rupture, being very small and hard. His bowels have not acted since the rupture, nor has he passed flatus. He has had twinges of pain starting from the right groin and shooting up to the navel, of frequent occurrence—about every half-hour. His water has been thick since his accident.

*Present Condition.*—Patient lying on his back; knees extended. Somewhat anxious appearance. Skin moist; tongue covered with a thick yellow fur; temperature 99·2°; pulse 84, fairly strong. Since admission has vomited about every two hours until 3 a.m. this morning. Since then has not vomited till just now, when he brought up an ounce or more of bright green granular fluid. Complains of pain in the right groin, casually shooting up towards the navel. There is no tumour in the right groin. Finger passes freely into the external ring, which is large. There is no tenderness in other parts of the abdomen. When the patient lies on his left side the left flank is dull; when he shifts over to the right it becomes tympanitic, while the right flank becomes dull. Pupils of the same size and somewhat dilated.

January 30.—Patient has not passed a motion yet, but has passed flatus twice per anum; has only been sick once since yesterday; the character of the sickness is unaltered; stills feels the pain in his groin, but fancies that there is some improvement in that respect.

31st.—Patient much improved since yesterday; has passed wind, but no motion; has lost his pain altogether; has very slight tenderness on pressure; has been sick only once, the same granular, green, bilious fluid. Mist. effervescens ℥j.

February 2.—Patient seems weak to-day, and somewhat incoherent in his talk; has had no action of the bowels, but has passed wind occasionally; all the pain and nearly all the tenderness has left him; is sick occasionally, about once per diem, the same green stuff being vomited.

3rd.—Patient very weak and despondent this morning; very sick; the character of the sickness is altered, now being brown, with lumps of solid matter not particularly malodoriferous, but with distinctly fæcal odour. He still complains of no pain, and has passed wind; his face is much thinner, but of a healthy colour. There is slight general tenderness of abdomen; tongue is very filthy. Temperature 99·2°; pulse 108, very weak compared with his pulse a few days back.

4th.—Yesterday afternoon at 4 p.m., there being at the time distinct though slight general tenderness, movable dulness in the flanks, and obviously stercoraceous vomiting, with very weak pulse and foul tongue, Mr. Heath placed the patient under choloroform, and made an incision over the supposed neck of the hernia. After tearing through the tissues he came upon the sac, which contained some very dark red, almost black, fluid. The finger passed into the sac felt the external ring of natural size, and what appeared to be a small internal ring above. The wound was enlarged upwards, and the inguinal canal laid freely open, when a knuckle of intestine was drawn down, which was tightly constricted, of a dark brownish colour, but still glossy. This constricting band was divided, and the intestine returned into the abdomen. The wound was drawn together with silk sutures, and a towel was placed as a pad over the wound. Patient was delirious at intervals during the whole night, and vomited frequently the same fæcal matter. Did not complain of pain in abdomen. Pil. opii. gr. j., brandy ℥ij., every hour.

At 10 a.m. this morning patient was pulseless; respiration hurried and difficult. At 10.30 a.m. an enema of brandy and beef-tea, ℥ij. At about eleven o'clock he passed a loose motion, and soon afterwards died.

*Post-mortem, twenty-eight hours after Death.*—A triangular flap was thrown down, including the incision made at the operation, its base reaching from the middle line to the iliac spine, and then the layers corresponding to this were reflected. In doing this it was found that the whole of the canal had been slit up—the cut in the transversalis amounting only to a nick in its lower border. The sac appeared to contain a mass of fat, which was found afterwards to be only a thickening of its inner wall. The testicle occupied its natural position below and behind the sac. On opening the abdomen the intestines were found throughout lightly glued together, the points of junction between the folds being marked by a red line. There was little more than an ounce of fluid in the abdomen. Just inside the incision in the abdominal wall lay a knuckle of intestine which had been strangulated, which was a piece of the ileum, close to its junction with the cæcum. At the anterior part of the line of constriction the gut had given way, and there was a small patch of fæces extravasated which would not cover a halfpenny. The constricted part was of a blackish-grey colour, and this last part of the ileum was attached to the back of the pubes by a firm old adhesion. The ascending colon was much contorted, and contained a small amount of fæces. The transverse and descending colon were empty. The other viscera were perfectly healthy except that both kidneys were much congested, and the lungs also somewhat congested.

*Case 2.—Injury to External Iliac Artery from a Blow—Obliteration at this point—No Pulse in Leg when discharged Relieved.*

W. Y., aged 16, admitted February 2, 1874. Patient is an engine-cleaner on the London and North-Western Railway, and was on the night previous to admission engaged with some others in removing the buffer-plate of an engine. This toppled backwards, but all the men managed to escape its fall entirely save the patient, whom it struck sufficiently to throw down violently on the adjacent rails. He fell very heavily on his left side. On admission patient seemed to feel great pain over lower part of abdomen, especially on left side. He had been seen by Mr. Heath, who could detect no injury to the bones. There was slight abrasion of cuticle where he was struck by the beam. No pulsation could be felt in the left posterior tibial, but could at that time be felt in the upper part of left femoral artery. No tumour could be felt in the iliac fossa. Mr. Heath passed a catheter, but no urine came by the instrument. The left leg was perceptibly colder than the right. On admission, there are comparatively few signs of serious injury. Patient has some visible bruises in the middle of the left back, just above the brim of the pelvis, and a bruised line across the left abdomen, on a level with the anterior superior iliac spine. There is a little tenderness over these bruises, as might be expected. There is complete retention of urine.

February 4.—No pulse whatever is to be felt in the left leg lower than an inch above Poupart's ligament. As far as this point pulsation can be traced in the external, but none whatever in the femoral, popliteal, anterior and posterior tibial. Temperature of the left leg is slightly lower than that of the right. Patient has not passed urine without the aid of a catheter since his accident. Temperature of left leg taken in popliteal space, 96°; of right ditto, 98°.

5th.—Patient passed water by his own unaided efforts last night; could not do so this morning. No pulsation in left leg

6th.—Patient's water retained until 2 a.m. this morning. Temperature 98·4°.

7th.—Ever since yesterday has passed water by his own efforts. Feels generally better.

10th.—No pulsation to be felt in leg, or even above Poupart's ligament. Decided fulness on the left side. Temperature 98·2° in both popliteal spaces.

12th.—No change in condition of patient, who feels extremely well, and wishes to get up. The swelling in the left side about the same size; no pulsation to be felt in it. No pulse in the leg.

15th.—Patient now gets up every day. No change in any way. Lad seems perfectly well in every respect; feels as strong in the left leg as in the other.

24th.—Goes out, with condition of things unchanged, but feeling perfectly well.

(*To be continued.*)


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# Medical Times and Gazette.

SATURDAY, SEPTEMBER 26, 1874.


## VEGETABLE DIET.

We all remember the puzzle that used to pervade the professional mind during the years when Liebig's doctrines were too exclusively dominant. According to Liebig's most ingenious and novel doctrine, muscular work was done by the oxidation

of muscular tissue, and therefore was supposed to require nitrogenous food in proportion to the work done. Non-nitrogenous (or carbonaceous) food was believed to be the source of heat only. The puzzle was evident when we attempted to explain the great consumption of carbonised food—as fat and sugar—in hot climates. That an Esquimaux in the Polar Circle should eat blubber was very easily understood; but then it was seen that, go as far south as you please, carbonaceous food was equally consumed. Solid butter is eaten in England and the North of France, bacon in middle France, and olive oil in the South of France. Go towards the tropics, and you find liquid butter or ghee in general use, with various kinds of starchy and sugary foods universally. The researches of Fick and Wislicenus, and Parkes, and the general progress of science, now make us believe that, whilst nitrogenous food is essential to the growth and repair of tissue, so that no animal can live without it, it may also, as in carnivorous animals, be the source of heat. Whilst the non-nitrogenous will not nourish tissue, it is available in its oxidation for the production not only of heat, but of muscular force as well. Hence it is wasteful to use highly nitrogenous food for the mere production of heat and force, if other food can be made to take its place. It throws on the kidneys the task of eliminating urea, whereas carbonaceous food is more easily exhaled by the lungs.

But nothing has since been discovered, or is likely to be discovered, to upset Liebig's doctrine of the unity of composition of animal and vegetable tissue. Animal food consists of nitrogenous tissue (muscle, etc.) *plus* more or less non-nitrogenous in the form of fat. Vegetable food consists also of nitrogenous matter (cascine, albumen, etc.) *plus* a much larger amount of non-nitrogenous in the form of oil, starch, sugar, and gum. And it must be borne in mind that purely non-nitrogenous articles, though familiar to us in daily life, are never found alone in nature: they are separated by human artifice, and are useful enough in combination with nitrogenous food; but alone no animal can live entirely on fat, sugar, and starch, any more than it can on air, water, or common salt.

Now, as a matter of fact, in accordance with the scientific doctrine of the unity of animals and vegetables, we find mankind living on either or on both, according as their wants and tastes lead them. Nothing leads to the conclusion that one form of diet is more natural than the other. Nothing can be "natural" to man which is unattainable; and when we hear assertions that "fruits and farinacea" are the natural food of man, we wonder how those poor neglected children of nature, the Esquimaux, are to get them.

We find the inhabitants of the Arctic Circle living on the cetacea and their blubber; the Indians of the Pampas living exclusively on lean beef and cold water (and Sir F. Head, in his "Rough Rides across the Pampas," describes them as vigorous, well-formed men, able to withstand any amount of cold and fatigue). The same must be said of tribes whose diet is exclusively vegetable—of the porters of Constantinople, and the "parritch"-and-milk-eating Highlanders. The vegetable-eating Brahmans in India have preserved their purity of race for centuries, though their dislike to animal food arises partly from abhorrence of blood-shedding in any orm, and partly from the doctrine of transmigration of souls. We believe that the dislike of the English vegetarians for esh is founded greatly on the cruelties and moral debasement involved in slaughtering; for, in truth, the definition of "vegetable" food is a loose one. Dr. Lambe rejected milk and eggs. The Brahmans reject eggs, because they refuse to destroy what is endowed with life; but they take milk. The English vegetarians take milk and eggs both. We cannot see why anyone who eats butter can refuse suet or lard, or any other kind of animal fat.

Now, as things are at present, many persons eat far too much flesh, and would be the better for a more copious admixture of vegetables. Others have too much vegetable, and especially farinaceous food, and not enough flesh, regard being had in either case to the work which the individual has to do, and to the power of digestion.

Too exclusive a flesh diet is the vice of many rich people, who even allow their children at school to indulge in gamepies and other articles of the highest class, such as unfit boys for plain fare, and deprive them of the help which a higher diet might afford them hereafter in case of illness. Too much animal food is unduly stimulant, renders children restless and quarrelsome, young men sensual and Philistine, and elderly men gouty and dyspeptic.

Too exclusively vegetable or farinaceous a diet, especially if tried too suddenly by persons unused to it, has for its first effect to constipate the bowels, which become loaded with masses of undigested potato, bread, or rice. To this often succeeds a diarrhœa, when the intestines are irritated without being emptied. Children used to meat, and put too suddenly on a diet of potatoes and bread, become soft and puffy, their bowels are confined, they cease to grow in body, and their mind is inactive.

Now, we believe it may be laid down as an axiom, that, other things being equal, the more the brain is worked, the greater need is there for animal food. Town people must have more meat, as a rule, than country folks; the children of professional men more than the children of agricultural labourers. Still, rich townspeople on the whole should use less flesh, and poor ones more. We may next ask what is the precise quality which distinguishes animal food from vegetable, and how we may confer this upon vegetable food, so as to induce the too exclusive animal feeders to substitute a larger share of vegetables than they now do.

That which distinguishes flesh from vegetable food in its commonest form—say bread—is its more stimulant quality. We are not going at present to enter into the definition of "stimulant," but we may say that a stimulant food is one that excites the nerves of taste, that is quickly digested, soon poured into the blood, and soon felt by the heart and brain. Now, there is no doubt that the animal food in general use is more stimulant than the vegetable—a basin of beef-tea is more immediately felt than a cup of gruel; and a tender steak would set a fatigued man on his legs more quickly, and be less troublesome for the stomach, than a meal of parched peas, or potatoes, or bread. The vegetable world can offer nothing to take the place of raw meat, or of the juice or essence of flesh.

But there are plenty of vegetable stimulants, some combined with nourishment, as in mushrooms and onions; others uncombined, as the peppers and spices. And the way to ensure the greater use of nutrient vegetables is to confer on them some of the flavour and stimulating properties of animal food. By this means the people who eat too much flesh, and the people who cannot get flesh enough, would each have the best substitute.

Rich people, who can afford what they like, may lessen the consumption of meat by introducing various accessories—as stewed fruit with roast meat,—and by substituting the nicest and most *récherché* vegetable dishes for *entrées* of meat.

Poor people, who wish to reduce the quantity of flesh for economical reasons, must fall back upon the farinacea and on vegetables generally, and endeavour, by appropriate admixture of vegetable condiments, to imitate the stimulating and satisfying qualities of animal food. In fact, puddings and other dishes which are too commonly eaten with sugar should be made *savoury* by the addition of the condiments that generally accompany meat. This is well understood by the vegetarians, who publish a dozen "vegetarian recipes" on a halfpenny sheet.(a) In eight of the twelve dishes we

(a) To be had of the Secretary, 24, Cathedral-yard, Manchester.

find onion; in six mushroom; the savoury herbs, parsley, pot marjoram, lemon thyme, or balm, and pepper, in almost all; whilst the substantial ingredients are bread, macaroni, and potatoes, with eggs and milk. The middle-class diet of many parts of England is a vestige of times when flesh was not so common an article of consumption as it is now. The Suffolk people to this day begin dinner with the "dumpling" of the county; a solid mass of flour and water well boiled. The Norfolk people make their dumpling of flour fermented with yeast. The Yorkshire people use a batter of flour and milk, baked in thin layers, and, if possible, under the dripping of meat. Each of these puddings would be wholesomer if it included suet or some other chopped fat, and if it were lightened and flavoured with chopped herbs. With the abundant means at hand for adding a savoury flavour to vegetable food, especially with grated cheese, with the pot-herbs, with all the full-flavoured vegetables, of which garlic (could people but learn how to use little enough of it) is the chief, with all the aromatics, the supreme use of which is shown in the Indian curry, it must be strange if any housewife who tries cannot find the means of satisfying the stomach and palates of her household without having to deplore a heavy butcher's bill.

## TESTS FOR ALBUMEN IN URINE.

A FEW years ago, pulmonary and cardiac diseases were the fashion in medical circles; nowadays, kidney disorders, or rather those general conditions of the system which are somewhat loosely and clumsily grouped together under the name of Bright's disease, seem to be in the ascendent as regards popularity. We may deprecate and even deplore deeply these fashions in medicine, but we cannot help them. A popular physician or a clever clinical teacher will always have his followers and admirers, and in the long run both the profession and the public are gainers. Every new fashion in physic leads to the acquisition of new facts and the explosion of old fallacies; and those who would effect reform must rather attempt to guide than to check the vagaries of fashion. In seeking to render justice to the renal organs, we must not give the reins to our fancy and allow ourselves to imagine that the kidney is or has been a Cinderella amongst the triad of organs which most frequently originate dropsy. Ever since Dr. Blackall traced so clearly the association of certain forms of dropsy with albumen in the urine, a brilliant host of observers, both in the old and new world, have been building up a foundation of facts, on which we may some day rear a noble edifice of renal and general pathology. If it should hereafter be found—as seems not unlikely—that acute nephritis (such as occurs with or after other acute diseases, and sometimes independently) and the various forms of granular or cirrhotic or fatty or waxy degenerations of the kidney, and other forms of renal disease, have little in common with each other—except the albuminuria and the more or less constant association of œdema and the non-elimination of urea,—this conclusion, accepted already by many practical workers, by no means affects the value or importance of finding a good, handy, and cleanly test for the presence of albumen in the urine. It is quite true that albumen may be often present there without organic disease of the kidney—as the result of an overplus of albuminous material in the food, or of over muscular exertion; or, as seems not unlikely, as a symptom of hæmorrhage in some distant organ—but it must be conceded that its habitual or even frequent presence in urine is a ground of grave suspicion that there may be not only kidney mischief, but constitutional disease of a severe, if not incurable form. Next, however the statement may startle some of our readers, we believe that nearly all those who make a constant habit of examining the urine of their patients, and who also follow their life-history as far as practicable in these locomotive days, will admit that the mere quantity of albumen present is by no means to be taken as an index of danger—unless it be in an inverse ratio. Whilst many patients whose urine is crammed with albumen make fair recoveries; the "little cloud" which the clinical clerk scarcely deems worth noting down may be the forerunner of a fatal storm, which may wreck the patient, and with it the hopes of his family and friends. But let that pass; our object is to review here a few of those methods of testing for albumen which are serviceable in the daily practice of our profession. And lest our paper should be harshly criticised by any chemist who is not also a practising member of our profession, let us here premise that methods of analysis which may be both delicate and accurate in the hands of an analytical chemist, may utterly fail of commanding favour at the bedside, or in the hospital ward, either from their requiring a delicacy of manipulation, or an amount of apparatus, which are inapplicable and over-cumbrous; or from requiring an amount of time which few practitioners can afford. And, again, the chemist must remember that it is albumen in urine which is to be tested for, and not that substance in mere watery solution. And lastly, we have, undoubtedly, not one form of albumen to deal with, but two, three, or it may be more forms of this substance, closely allied, but still with important differences—differences which chemists, as yet, have not taught us to recognise, though the practical uroscopist is familiar with them in a crude and practical form. This subject is too extensive for one brief article, and we mention it merely that we may show the difficulties which surround the detection of albumen in urine. In a practical point of view, we believe we are justified in discarding the use of caustic alkalies; of alum; of hydrochloric, sulphuric, acetic, tannic, and gallic acids; salts of mercury and iodine, sulphate of copper, alcohol, chloroform, and a host of other precipitants or colour-tests; as well as the so-called polarisation test—which is not a test at all, in the proper sense of the word, and is utterly inapplicable to ward-work. For practical purposes, we possess, then, only five good tests at the present moment—viz., Heat and Nitric Acid; Nitric Acid alone; the Prussiate of Potash test; that by Carbolic Acid; and the Picric Acid test. Some may think we should have added the Wolfram test, with Tungstate of Soda and Acetic Acid; but, although fairly delicate, it is so much inferior in point of rapidity and delicacy to the others named, that its omission from our list is no great loss. Let us examine the tests named, one by one:—

First, the Heat and Nitric Acid test. When an acid solution of albumen is heated to a temperature of 75° to 80° C. (167° to 176° Fahr.) it begins to coagulate and become turbid. If there be but little albumen—in other words, a weak solution—boiling may be required. In order to make sure of the urine being acid, and to dissolve any phosphates thrown down by the heating, one, or at most two, drops of nitric acid (strong and pure) are to be added after boiling. Some books recommend acetic acid, but this is far inferior to nitric, and some forms of albumen are very soluble in acetic acid and water. The essentials of this process are—a clean test-tube and urine free from flocculi and from obvious dirt. The upper part of the tube should be heated first; and one must take care not to add too much acid, because the compound of albumen with nitric acid is soluble in certain proportions of nitric acid and water. In order to be sure of small quantities of albumen by this method, we should allow the test-tube to stand a few hours, and in case of doubt examine the precipitate microscopically. What are the objections to this test, which is by far the most widely used of any we have named? The chief are—that it requires a spirit-lamp; that it is tedious, and may even require the microscope to be called in as arbiter; and that some forms of albumen met with in urine are with great difficulty coagulated by heat, even with the aid of

acids, which again often dissolve what they are meant to discover.

Secondly, we have the Nitric Acid test, variously modified by Heller, Andrew Clark, and others. This, which is a delicate test for most forms of albumen, is also deservedly popular. We shall describe only the best method of using it. A clean, dry test-tube has about half a drachm to one drachm of pure colourless nitric acid poured into it, so as to give a column of one-third to a half inch of acid; and over this is gently floated, either by a pipette or by careful pouring from another test-tube or glass, about one drachm of the urine to be examined. If albumen be present, besides perhaps a ring of colour (commonly said to be uroxanthine, but often iodine, or some pigment taken in diet or drugs, and sometimes bile pigment), we get a cotton-wool-like, flocculent cloud of precipitated albumen, which the practised eye easily distinguishes from urates, nitrate of urea, or other matters, by its delicate flocculency. Very often it is colourless, at other times deep yellow or orange; but colour alone is no test in this instance. What are the objections to this test? Chiefly the corrosive nature of the acid—it is no joke to have a bottle of this burst in the pocket; and next, the urine requires to be even freer from turbidity than with heat, and in urines full of urates this test is scarcely applicable; lastly, some forms of albumen are not thrown down by it. *Apropos* of mere turbidity, the circular Swedish filter-papers, now so common, and a wire bent into the form of a capital V, or rather Y, will soon perform the operation of filtering into a test-tube enough urine for any of our tests.

Thirdly, there is the Prussiate of Potash test, often called Böttcher's—we know not how truly. The urine is first acidulated (with acetic acid preferably), and then a moderately strong solution of ferrocyanide of potassium is dropped in; thus the albumen present is coagulated, forming a whitish cloud of more or less thickness. We first saw this test in Dr. Barlow's "Practice of Physic," and have used it a good deal, but our experience of it is that although cleanly, cheap, and requiring little apparatus (for the vinegar-cruet in a private house may supply the necessary acid), it is a slow and not always reliable test; for, like nitric acid, it sometimes fails to throw down albumen, which other tests will demonstrate.

Fourthly, the Carbolic Acid test, first proposed by Mèhu, and greatly improved by Dr. Tidy, whose form we adopt. He mixes equal volumes of glacial acetic and crystalline carbolic acid. The urine is put into the test-tube first, and the test added in the proportion (say) of one-tenth of the urine at first, and the whole well shaken. It has been objected that carbolic acid may be separated merely by the water, and may be mistaken for the milky precipitate which is undoubtedly caused by albumen. We have not ourselves found this to be the case, only the test is a very delicate one, and does detect albumen when boiling, etc., may not. Dr. Day, of Geelong, writes us that he never goes his rounds without carrying this test with him. The chief objection to it, as far as we know, lies in the unpleasant smell of the carbolic acid.

Fifthly, we come to the Picric or Carbazotic Acid test lately recommended strongly by M. Galippe in the French Medical journals, and noticed in the *Edinburgh Medical Journal* for July last. As the use of this reagent may be novel to some of our readers, we shall describe it a little more minutely than some of the others. The commercial picric acid, largely used by silk and woollen dyers, is pure enough for common use. It is a pale yellow crystalline substance, not unlike tannic or gallic acids, but easily known from them by its deep yellow or orange colour in solution, and the intense stain it gives to the fingers if not washed off at once. It is said to have the composition of $C_6H_3(NO_2)_3O$, or tri-nitrophenol; and its alkaline compounds are much used in the manufacture of explosive cartridges, Orsini bombs, and the like. Although trials have been made of it as a substitute for quinine, it is a very poisonous substance, not likely to be much used by criminals, because it dyes the body a pretty permanent yellow, and hence "leaves its mark" upon the victim too plainly. This is, *teste* M. Galippe (and we can confirm him), one of the best and most reliable tests for albumen in urine. A watery solution (made instantaneously by shaking up a few crystals of picric acid with water) is first poured into a clean test-tube, say to an inch depth, and then the urine to be tested is dropped into it *guttatim*, and the tube gently shaken. Our readers are aware that potassium salts also cause a precipitate with picric acid; but the shiny, feathery, golden crystals caused by potash, which soon sink to the bottom of the tube, are wholly unlike the whitish, milky turbidity caused by albumen. It is, however, worthy of note that an excess of the albuminous urine will redissolve the precipitate first formed. On adding a little more of the picric acid solution the albumen is, however, again thrown down; and this alternate precipitation and solution, in a see-saw fashion, makes a pretty experiment for the urologist to exhibit. The only objection we know to this test is the stain given to the fingers by the reagent. This is, however, easily avoided by a careful operator; and there is one very great advantage: the dry acid can be easily carried wrapped up in paper and gutta-percha in one's pocket-book, or even in an envelope, or in the waistcoat-pocket—since a wine or liqueur-glass will serve as the test-tube in a private house. The reader who has followed us so far will, we think, agree with us that none of the common tests are quite satisfactory, and that we still lack one which shall be cleanly, portable, cheap, and certain. Meanwhile we have several which in practised hands are fairly to be relied on; and in all cases of doubt, not one, but several, if not all of the tests enumerated, should be used to solve the difficulty, if possible.

## PROFESSOR MAX MÜLLER ON THE "RAISON D'ÊTRE" OF ASSOCIATION MEETINGS.

In these days of congresses and association meetings, the question is often asked respecting them, *Cui bono?* or, as Professor Max Müller puts it, "The first question which the world never fails to address to us is, *Die cur hic?*—Why are you here? or to put it into French, What is your *raison d'être?*" It will, no doubt, be gratifying to those members of our profession who take part in such scientific gatherings to know the opinion of their real and permanent use held by one so distinguished as the President of the Aryan Section of the International Congress of Orientalists.

In his recent inaugural discourse, Max Müller says their use is twofold:—"(1.) They enable us to take stock, to compare notes, to see where we are, and to find out where we ought to be going. (2.) They give us an opportunity, from time to time, to tell the world where we are, what we have been doing for the world, and what, in return, we expect the world to do for us."

In other words, there is an intrinsic and there is an extrinsic good result: the first is, that those of the same pursuits and studies learn, by comparing notes with one another, how best to direct their energies; and the second, that by uniting together and appearing in a body before the world, they can with greater force fix the attention of those outside their pale upon the importance of their aims, and thus obtain fuller recognition of them, and better assistance towards their accomplishment.

The Professor regards a "tendency to extreme specialisation" as one of the dangers of all scientific work at the present day. "Our age," he tells us, "shows in that respect a decided reaction against the spirit of a former age, which those with grey heads amongst us can still remember, an age represented in Germany by such names as Humboldt, Ritter,

Böckh, Johannes Müller, Bopp, Bunsen, and others; men who look to us like giants carrying a weight of knowledge far too heavy for the shoulders of such mortals as now be; aye, men who were giants, but whose chief strength consisted in this: that they were never entirely absorbed or bewildered by special researches, but kept their eye steadily on the highest objects of all human knowledge; who could trace the vast outlines of the cosmos of nature or the cosmos of the mind with an unwavering hand, and to whose maps and guide-books we must still recur whenever we are in danger of losing our way in the mazes of minute research." . . . . "All rivers, all brooks, all rills, are meant to flow into the ocean; and all special knowledge, to keep it from stagnation, must have an outlet into the general knowledge of the world. Knowledge for its own sake, as it is sometimes called, is the most dangerous idol a student can worship. We despise the miser who amasses money for the sake of money, but still more contemptible is the intellectual miser who hoards up knowledge instead of spending it, though with regard to most of our knowledge we may be well assured and satisfied that as we brought nothing into the world, so we may carry nothing out. Against this danger of mistaking the means for the end, of making bricks without making mortar, of working for ourselves instead of working for others, meetings such as our own seem to me a most excellent safeguard."

These remarks seem to us to apply very well to medical congresses, and to explain the uses to which they may be, and let us hope are, put. Their existence is more than justified if they tend to widen our intellectual sympathies, to elevate us out of grooves into a broader prospect of surrounding objects, and to direct our knowledge from personal accomplishments to the common weal.

When speaking of the powerful influence which the East, and especially India, has exercised on the intellectual life and work of the West, Max Müller says:—"In all these subjects (language, literature, mythology, law, religion, and philosophy) the East has supplied us with parallels and with all that is implied in parallels—viz., the possibility of comparing, measuring, and understanding. The comparative spirit is the truly scientific spirit of our age,—nay, of all ages. An empirical acquaintance with single facts does not constitute knowledge in the true sense of the word. All human knowledge begins with the two or the *dyad*, the comprehension of two single things as one. If we may still quote Aristotle, we may boldly say that 'there is no science of that which is unique.'"

The importance of this study of parallels, and the faculty it developes of comparing, and understanding in the fullest sense, cannot be overrated as a means towards the acquisition of medical knowledge, while the comparative method of investigation is the surest shield against empiricism and quackery, and is all-powerful for the development of that qualification so necessary for a medical man—intelligent observation.

At the present moment, when so much time and thought are being given to the preparation of the annual addresses to students of medicine, this address of Professor Max Müller seems well timed, containing, as it does, in its earlier parts, a good deal which, though general in intention, is so particularly applicable to those pursuing medical sciences.

## THE WEEK.

### TOPICS OF THE DAY.

An incident occurred last week of a very gratifying character respecting the funeral of Miss Louisa Eliza C. Coles, the Lady-Superintendent of the British Nursing Association, and of the Nursing Department of the Royal Free Hospital. At her funeral, which took place on Friday last at Highgate Cemetery, her remains were followed to the grave by many influential gentlemen connected with the institution of which she was the Lady-Superintendent. Amongst these were General Sir Arthur Lawrence, K.C.B.; Major-General Eardley-Wilmot, Major Elliott, Sir Kingsmill Key, Mr. Hart, Mr. F. J. Gant, and Mr. J. D. Hill. After the funeral service had been read, General Wilmot briefly addressed the mourners in a most impressive speech, referring to the good qualities of the deceased. A great number of poor persons who had been nursed under Miss Coles's superintendence were in the line of the procession and at the grave. This bears sufficient testimony to the manner in which the deceased lady had managed the nursing department at the Royal Free Hospital. It affords a happy contrast to the nursing department as occasionally seen in other hospitals. It is pretty clear from this case and from others that the "system" of nursing has little or nothing to do with its usefulness or its success. The personal qualities of those engaged are of far more importance to success than the system, however elaborate or "highly organised." During the time that Miss Coles has superintended the nursing department of the Royal Free Hospital, we have not heard of a single case of complaint against her either by the medical staff, the governors, or the poor patients under her care. Nothing is more lamentable than squabbles amongst those entrusted with the care of the patients of our hospitals; nothing more pleasant than to record an incident which shows the opposite kind of feeling.

Although it cannot be denied that there are many people in the present day who desire a Parliamentary inquiry as to the method of distributing the enormous funds at the disposal of several of the great City companies, it must also be admitted that so long as they continue to exhibit the princely munificence for which they have become celebrated, public opinion will be decidedly adverse to any interference with their existing rights. A striking example of this has been afforded by the Grocers' Company. This Company has recently presented to the governors of the London Hospital, Whitechapel-road, the sum of £20,000, which is to be spent in the erection of a new wing to the building already existing. The new building is to be called "The Grocers' Wing," and is to have a frontage of 120 feet, and a depth of forty feet, affording accommodation for 200 patients. This handsome donation will greatly increase the space at present available for patients in the London Hospital; and in addition it is contemplated to construct a mortuary to be attached to the Hospital at an additional cost of £10,000. We trust that such an excellent example of liberality, extended in one of the directions where it is so urgently needed for the benefit of the suffering poor, will not be thrown away upon others of the rich City companies with accumulated funds to spare; and we can only hint that there are other London hospitals to whom similar munificent donations would be a means of increased usefulness.

There is no more effectual mode of spreading zymotic disease than the congregation of a large number of persons in, or their pilgrimage to, places where it is prevalent. Experience has shown that some of the most formidable outbreaks of infectious and contagious diseases have had their origin from these causes. With the view of protecting the public health, assemblages and pilgrimages of the kind referred to have in some cases been prevented by the authorities. For the first time in this country, we believe, an effort has been made—or, at all events, warning has been given to those in authority—to prevent the gathering of large numbers at a fair about to be held at Birmingham. For some time past this important town has been the seat of an epidemic of small-pox and scarlet fever. The Health Authority for the combined counties of Northampton, Leicester, Rutland, and Bucks has written to the Town Council of Birmingham, earnestly requesting them

to postpone the holding of the fair until a more healthy period. There had already been traced, in one of the towns of the district, at least one case of malignant small-pox in a woman just removed from Birmingham. As yet the communication has only received the notice of being referred to a committee.

By the will of M. Girolamo Ponti, of Milan, a large sum of money has been left to "the academies of science of London, Paris, and Vienna," under certain conditions printed in Tuesday night's *Gazette*. No special society is indicated, and Lord Derby states the contents of the will, adding that it is likely to be contested, and that any institution believing that it is entitled to the bequest should claim it at once. The "science" of medicine has surely as much claim to the legacy as that of any of the other "sciences," and we hope a claim will be made for it by the College of Physicians or the College of Surgeons.

In London, last week, 1242 deaths were registered, showing as many as 174 below the average. The death-rate was 16 per 1000 in the West, 18 in the North, 20 in the Central, 24 in the East, and 19 in the South groups of districts; 105 deaths occurred from scarlet-fever, and not one from small-pox. To the seven principal diseases of the zymotic class, 231 deaths were referred, against 258 and 213 in the two previous weeks. These 213 deaths were 120 below the average. The 105 deaths from scarlet fever showed a further increase upon the numbers in recent weeks, and exceeded the weekly average by 33.

The Report of the Executive Committee of the Dublin Sanitary Association, presented to the general meeting held July last, states that the work of the Association at the conclusion of the second year has been carried on with no less efficiency and public approval than in the previous year. Two hundred and fifty-one members are now enrolled in the Association, being an increase of thirteen on the number for 1873. The experience of another year has shown more clearly than before the magnitude of the work which the Association has undertaken, and of the difficulties which lie in the way of its accomplishment. It has also more fully convinced them that, with adequate support and encouragement, much permanent good may be achieved; and for that encouragement and support they look confidently to the members of the Association and the public.

Yellow fever is prevalent at New Orleans, Galveston, Pensacola, Key West, Brunswick, and Darien (Georgia), and at the quarantine ports of New York and Baltimore, but it is not expected that the fever will become epidemic. It appears that this is the first time in the history of the General Government that the Treasury Department has made use of all its legal authority for the prevention of an epidemic, and the first time that the collector of customs, revenue cutters, and marine hospital surgeons have acted in entire harmony with the local quarantine authorities.

It is becoming more and more the laudable custom for the teachers and old pupils of our hospital schools to dine together at least once a year. In many ways this does good; and the selection of the opening day is as excellent as could be made. This year, as far as we know, the following are the arrangements of the various hospitals which have advertised an annual dinner:—

*Charing-cross Hospital.*—The dinner will take place at the Freemasons' Tavern on Thursday, October 1, at a quarter-past six o'clock; Henry Hancock, Esq., F.R.C.S., in the chair.

*Middlesex Hospital.*—The annual dinner will take place in the usual room at St. James's Hall on October 1, at half-past six; John Tomes, Esq., F.R.S., in the chair.

*St. George's Hospital.*—The annual dinner will take place at Willis's Rooms, King-street, St. James's, on Thursday, October 1. Professor Owen has kindly consented to preside.

*St. Mary's Hospital.*—The biennial dinner will be held on Thursday, October 1, at half-past six, at the Criterion, Regent's-circus, W.; Dr. Handfield Jones in the chair.

### THE ROYAL PATRIOTIC SCHOOL AT WANDSWORTH.

In our last number we referred to the letters of Mr. St. Aubyn Hawken (Medical Officer to the Royal Patriotic Schools, Wandsworth) and of "F.R.C.S." in the *Times* as to the sanitary condition of the schools which directly or indirectly led to the unfortunate death of Dr. Anstie. These were followed by a letter from Mr. Mugford, the secretary of the Commission, giving an account of what had been done on the occasion of the outbreak already alluded to. Whatever the means of its being brought about, Dr. Anstie's death was equally deplorable. It is now, however, generally admitted to have been due to the dissection-wound inflicted on his finger on the Sunday before his death. Previous to this Dr. Anstie had been overworked, and was not in particularly good health; and to this fact is probably due, in part at least, the dismal result which all regret. As, however, the report had been bruited abroad that his death was due to the inhalation of sewer-gas, the authorities were only doing their duty when they took steps to indicate the precise cause of Dr. Anstie's illness and the actual condition of the premises where children from all parts of the country were assembled in great numbers. As far as we can glean, the following are the exact particulars of Dr. Anstie's visits to the Wandsworth Schools:—

On Friday, September 4, Mr. Hawken fetched Dr. Anstie, but calling on him unexpectedly, he could hardly spare the time to come, and said his visit must be a hurried one. He did not stay at the schools more than half an hour; saw only a few of the worst cases; and whilst passing the play-ground on his way home spoke approvingly of the alterations carried out in the shed about two months ago. Before leaving, he told the Secretary he could not come down again before Sunday, the 6th, and that he would then give the whole afternoon to an investigation. But on Saturday morning, two of the children having died during the night, and permission having been obtained from the relatives of one to make a post-mortem, a telegram was sent to Dr. Anstie to that effect, and he came down in the afternoon, bringing with him Dr. Buchanan. The latter made the post-mortem, and they left almost immediately after, going only into the kitchen to look at one of the boilers, as Dr. Anstie could not stay, and had appointed the next day to go into the whole matter. On Sunday, the 6th, he arrived about 1.30 p.m., and, having now permission to make a post-mortem on the other case, this was carefully gone about, and was not completed till just five o'clock, as he went most minutely into everything. He then spent about half an hour in seeing a few of the cases. About six o'clock Dr. Anstie went to the tower of the building, to see what had been done to the drinking-tanks that had been thoroughly renovated on Friday and Saturday; and on his way down went into one or two of the water-closets. Thus on Sunday nearly all his time was taken up over the post-mortem which so unfortunately caused his death. When he left he said he would come again next day, the 7th, but before his arrival the secretary and Mr. Hawken had discovered, with the plumbers, that the junior section of the children (those affected by the peritonitis) were supplied by water from a rain tank, as described in Mr. Hawken's note of the 16th inst. in the *Times*. The pipe was disconnected and joined to one from the proper water-supply before Dr. Anstie's arrival; and when he came, and was told of the discovery, he was so convinced of that being the cause of the outbreak that he did not think it necessary to go into a further inquiry. He therefore saw some of the cases of illness, and left, saying he did not think it necessary to come again unless he was sent for. For two days after the severing this pipe a few cases were brought into

hospital for treatment, but no single case after the 9th inst. The few cases of the two days *after* the severing of the pipe were probably incubating at the time of severance, and after that date everything disappeared as if by magic.

The following is an extract from the Minutes of the Executive and Finance Committee of the Royal Commission, Patriotic Fund, dated September 16, 1874:—

"Lord Hampton in the chair.

"The following resolution was unanimously adopted—'The Committee cannot close their proceedings on this occasion without recording their unanimous and warm approbation of the zeal, good feeling, and ability with which, in their respective positions, the secretary of the Commission, Mr. Mugford, and the surgeon, Mr. Hawken, have exerted themselves successfully to discover and correct the causes of the late unfortunate and fatal epidemic in the girls' asylum.'"

We have been informed, on good authority, that the reason the Saturday post-mortem was made by Dr. George Buchanan was, that Dr. Anstie had then an unhealed cut on his thumb. This had been inflicted some time before, and (probably from his being overworked) had refused to heal; but in his eagerness after scientific truth, he seems on Sunday to have forgotten or overlooked this. That direct poisoning at the post-mortem examination was the real cause of poor Anstie's death seems now beyond doubt; but for the lowered state of health which fostered its ravages, we greatly fear that the modern Frankenstein—overwork—had more to do than sewer-gas.

### MEMORIAL TO THE LATE DR. ANSTIE.

On the evening of Wednesday, the 23rd inst., a meeting was held at the house of Dr. George Johnson, Savile-row, for the purpose of raising funds to perpetuate the memory and services of the lamented Dr. Anstie. Dr. George Johnson presided, and among those present were Drs. Andrew Clark, Sibson, Murchison, Burdon-Sanderson, W. Playfair, Liveing, Duffin, Douglas Powell, Wharton Hood, Sturges, and Glover, Messrs. Macmillan, J. S. Storr, T. H. Hills, John Wood, Henry Smith, Christopher Heath, Henry Power, Bond, Netten Radcliffe, Brudenell Carter, and many others. Letters from many eminent professional men, expressive of sympathy with the object proposed and of regret at unavoidable absence, were read to the meeting. Dr. Burdon-Sanderson moved, and Dr. Glover seconded, the following resolution:—"That, considering the labours of the late Dr. Anstie for the promotion of science, and the circumstances of his untimely death, it is desirable that some permanent memorial of his career should be established." The early and unexpected death of this gentleman has unavoidably left his family in rather straitened circumstances, and surely there could be no better memento to a father's worth than a good education to his children. Some proposals were made for a scholarship, for a pathological laboratory, and so on, but in the face of what we have above stated such were transparently idle and futile. Much more sensible was the proposal to erect a memorial brass to Dr. Anstie in King's College Chapel in addition to the collection of a sum for his children's benefit. By subsequent resolutions a large committee was appointed to carry out the objects of the meeting, and Mr. J. S. Storr, of 26, King-street, Covent-garden, was appointed treasurer, and Mr. Brudenell Carter and Dr. Wharton Hood were appointed joint honorary secretaries. An executive committee was also nominated; and an opinion was expressed that the circumstances of Dr. Anstie's death, in the discharge of his duty, as well as much of the work which he had done during life to ameliorate the condition of the poor, were sufficient to justify an appeal to the general public as well as to his own profession. A considerable sum was subscribed on the spot, and we have no doubt that plenty of money will be forthcoming for the object in view. We ourselves shall be glad to assist, to receive any sums which may be forwarded to us, and to hand them over to the honorary treasurer of the fund. The meeting terminated with a vote of thanks to the chairman.

### DEATH OF MR. FRANCIS, OF NORWICH.

Since we last noted the condition of the sufferers by the Norwich accident, Mr. Francis has passed away. Last week we indicated the nature of his injuries—how severe and how dangerous they were. Even from the first his life was despaired of, and, though he gave signs of rallying, after much suffering he sank. Mr. Francis was chief in the management of the excursions at the recent meeting of the British Medical Association, and his pleasing manner and general urbanity were matters of universal comment. Fortunately, he had insured his life against accident to the extent of £1000.

### THE PNEUMATIC SYSTEM OF DRAINAGE.

A well-written letter in the *Times* of September 23 will probably have the effect of directing attention to the Liernur system of drainage by aspiration. We need not recapitulate the need that exists for some reform of the existing water-closet system, which, in most cases, if it does not act as a means of poisoning within the house by tainting the domestic air and water with sewer-gas, yet does but convey the excreta to a public sewer, where it ferments with the admixture of the volumes of hot water that are discharged from houses and factories; or else leaves it stagnant in cesspits and ditches to pollute the sources of water supply. The Liernur system is thus described in the *British Architect*:—

"In a building, which may be located in any part of the town, a steam-engine is placed, which works an air-pump; beneath the floor of the building large air-tight cisterns are concealed, and the air in them is exhausted by means of the pump. From the cisterns air-tight pipes of cast iron proceed along the chief streets, having cisterns placed below them at intervals. From these secondary cisterns other pipes radiate along the smaller streets, and these communicate by branch pipes with the closets of the houses. Where the pipes enter and leave the street cisterns the house cocks are placed, which can be opened by keys in the same manner as water mains are worked. Closets of the simplest description are alone required. The excrement in the first place falls into a sort of hydraulic trap, which discharges into the pipe connecting the closet and the nearest street cistern. The entrance to the pipe is also guarded by a self-acting valve, which shuts off all communication with the system of street pipes, except when the air is exhausted in them. This is done at certain times in the twenty-four hours, as the case may be. The valve revolves, the matter is sucked out of the pan in which it has been received, and drawn into the central building. All the closets near and far put in communication with the central exhausted reservoir are emptied simultaneously. The pressure applied is about three-quarter vacuum. After the matters have been thus collected from a district and stored in the central reservoir, they are further disposed of in three ways. They are first transferred, still by means of vacuum power, to hermetically closed tanks above the floor of the building. From thence they may be decanted in their liquid state into barrels. This is managed in a very ingenious manner, so as to avoid all smell or escape of sewer-air. A double indiarubber hose is furnished with a two-way cock; through one hose the sewage is let into the barrel, through the other the displaced fetid gases are conducted back to the reservoir. From thence the air-pump removes them as fast as they accumulate, and forces them into the furnace of the steam-boiler, where they are burnt. In this manner every nuisance offensive to the sense of smell or capable of being dangerous to the public health is absolutely prevented. By another process the sewage may be conducted to air-tight drying retorts, where it is reduced to 'powdrette,' or it may be at once mixed with earth from the surrounding country, and so prepared for carting away."

It will be seen that in this system there is no current from the sewer to the house as at present—quite the reverse; nor are the excreta mixed with rain-water or house-slops.

### COURT-MARTIAL ON A MEDICAL OFFICER FOR NEGLECT OF DUTY.

From an account which has appeared in a contemporary, we hear that a singular inquiry into the professional conduct of a medical officer in the army has been held at Mean Meer, in India. Surgeon Creyk, attached to the 8th Brigade Royal Artillery, has been tried before a court-martial on a charge of neglecting a female patient named McDermott, while under his care. The patient was the wife of a gunner in one of the batteries of the 8th Brigade Royal Artillery; she was admitted to hospital suffering from melancholia, said to have been brought on by domestic troubles. Her husband was hospital-sergeant to the battery, and she was the matron; and as such was well known to Dr. Creyk. He continued to attend upon Mrs. McDermott until he found that his presence caused her so much excitement that he deemed it prudent to discontinue visiting her; he, however, left directions with the apothecary regarding the treatment to be followed. The evidence elicited showed that the doctor was cognisant of the troubles which had prostrated the woman, and it was stated that "his presence brought on fresh paroxysms of grief, producing acute mental excitement." After remaining in hospital for some little time, Mrs. McDermott was discharged as cured; but returned on the same day, having had a relapse of the malady, and she died soon after her admission. No inquest was held on the body, and the husband brought a charge of neglect against Surgeon Creyk. The finding of the court-martial exonerated the doctor from blame in the matter, and he was accordingly honourably acquitted.

### THE FIRST JAPANESE MEDICAL JOURNAL.

We have been favoured with the first number of the *Kin-Se I-Setzu*, or "Modern Medical News"—a bi-monthly medical journal in the Japanese language. This, the first medical journal published in Japan, is intended primarily for a large class of native physicians who have already become somewhat acquainted with Western medical science, either by means of oral instruction or through the few existing translations of foreign medical works, but who have no knowledge of any language save their own. The *Kin-Se I-Setzu* is published at Yeddo, at the expense of the Imperial Government, and has so far a circulation of 1000 copies. The contents of the present number (for May, 1874) are, briefly—1, "Lectures on Urethral Stricture," by the Editor—Lecture 1; 2, "Surgery without Hæmorrhage (Esmarch's Method)"; 3, "Apparatus for Digital Dislocations"; 4, "Government Inspection of Coal Oil"; 5, "On the Relief of Pain"; 6, "Necessity for the Education of Midwives in Japan"; 7, "The Salts of Copper in Cholera"; 8, "The Nitrite of Amyl—a New Remedy for Asthma"; 9, "Rules for the Administration of Arsenic"; 10, "Oxide of Zinc in Diarrhœa of Infants"; 11, "Tinctura Ferri Chloridi in Small-Pox"; 12, "Gelatine Suppositories in Fæcal Accumulation"; 13, "Treatment of Syphilitic Onychia"; 14, "Tinctura Ferri Chloridi in Post-partum Hæmorrhage"; 15, "Ergotine in Hæmorrhage"; 16, "Glycerine as a Vehicle for Medicines, with a Table of Solubilities"; 17, "New Sign of Death"; 18, "Worms in the Heart and Bloodvessels of Dogs, in China and Japan." Such an admirable selection of material can hardly fail of doing some good. We should add that the editor is Dr. Stuart Eldridge, an American M.D., who is in charge of the Government Medical School at Hakodate, Japan. We wish him every success in his undertaking.

### INSANITY IN NEW SOUTH WALES.

Dr. F. Norton Manning, Medical Superintendent of the Hospital for the Insane, Gladesville, New South Wales, in his report for the year 1873 states that the average percentage of recoveries for the last five years has been 38·14. This average compares favourably with the recoveries in the English asylums during the five years ending December, 1872, up to which date returns had been received, the proportion being 33·80 on the numbers admitted. The deaths during the year show a percentage of 5·71 on the average number resident. The comparatively low rate of mortality among the insane in this colony is believed to be mainly due to the mild climate. The general health of the patients had not been satisfactory, although the average number confined to bed had been small. At the close of the year 1872 there were 474 patients in hospital, and these served to fill every single room, and to crowd every associated dormitory far beyond what was compatible with health and comfort. At the close of the year 1873 the number had increased by eighty-seven; every corridor and passage had been filled with beds; the rooms set apart for reading, amusement, and divine service had been occupied as dormitories; and there was no possibility of transferring to other institutions, since both the Parramatta and Newcastle asylums contained the full number of patients which could be accommodated with safety. No one without being intimately acquainted with asylum management can imagine the difficulties, the dangers, the relaxation of order and discipline, caused by overcrowding; and it is only persons who have been in charge of institutions of this character who can understand how disheartening it is to a superintendent to see his means of restoration and cure gradually curtailed, until he is left with little or no resources beyond food and physic. The overcrowding during the present year has not only taxed the energies of the officers and staff to the utmost, but has seriously interfered with the comfort, the health, and the recovery of the inmates. This unsatisfactory state of things is, we are glad to observe, likely to be remedied. Dr. Manning reports that he had learned the Government had purchased a site for a new hospital.

### INSANITY AT NEWCASTLE-UPON-TYNE.

It appears from the ninth annual report for 1873 of the Newcastle-upon-Tyne Borough Lunatic Asylum, that the general statistics are as follows:—Since the opening of the Asylum on June 24, 1865, there have been admitted in all 727 lunatics—viz., 364 males and 363 females,—and of these 27·8 per cent., or 22·5 males and 33·1 females, have been reported "recovered." Those discharged "relieved" and "not improved" amount to 18·7 of the admissions. The deaths calculated on the admissions amount to 23 per cent.—viz., 30·8 of males and 15·2 females,—while 30 per cent., or 222 patients—viz., 107 males and 115 females—remain under treatment. The introduction into the dietary of the Australian tinned meat, which is now freely used, at first met with opposition; but Mr. Wickham, the Medical Superintendent, remarks that, as for its nutritious qualities, he has only to say that the patients eating it, excluding those suffering from wasting diseases, gain, or at least retain their weight. The recovery rate for the three years he has held office has been 45·9 per cent., as against 33·5 per cent. during the previous five years, and the death-rate has been steadily decreasing, while the necessity for ordering extras for the sick is reduced to the very lowest minimum. The Australian meat has been largely used during that time, and though he does not wish to ascribe these satisfactory results to its agency, it must be apparent that it has not interfered with the primary objects of the institution. With reference to the post-mortem examinations made during the year, Mr. Wickham observes that it is a fair question whether there should not be a coroner's inquest in all deaths in asylums, as in gaols. By the theory of the law the patients are here against their will, and if inquests were ordered by Act of Parliament they would have two good effects—first, of disabusing a certain portion of the public of the prejudice which they entertain against these institutions; and secondly, of preventing that clamour which is generally excited when an inquest is held for death by injury.

### UNWHOLESOME FOOD.

Dr. Sedgwick Saunders, Medieal Officer of Health for the City of London, reports that during the past fortnight nearly four tons of meat had beeu seized at the markets and slaughter-houses as unfit for human food. A large quantity of putrid Australian meat had been found at Dowgate Wharf, in respect to which the Sanitary Improvement Act of last session had been put in force.

### WATER SUPPLY OF LONDON.

During August, Major Bolton, the water examiner, reports that the state of the water in the Thames was good, and that at the intakes it was generally very good throughout the month. The supply from the water companies was elear and bright. Greatly improved filtration was observed in the Lambeth Company's supply.

### SMALL-POX AT BIRMINGHAM.

The approaching celebration of thc great onion fair at Birmingham threatens to bring with it disastrous consequences. It appears on good authority that an epidemic of small-pox exists at the present moment in the above town, and has prevailed there for some months. The sanitary authorities at Northampton have issued a notice, eautioning all persons proceeding to and returning from Birmingham for the purposes of business, or otherwise, to be careful of the risks of infection which they will certainly havc to run; and it is moreover stated that the sanitary authorities at Birmingham have been strongly counselled to postpone the fair, so as to avoid the danger of spreading the malady. The notice from the Northampton authorities further quotes from the last report of the Registrar-General, to give greater weight to its eaution, the following remark: that "scarlet fever and small-pox eontinue fatally prevalent at Birmingham."

### CHARGE OF CRUELTY AGAINST A HOSPITAL NURSE.

It is fortunately a rare thing to hear a charge of eruelty preferred against a hospital nurse, but were it not so our British hospitals would not hold the honoured and popular plaee they do in the hearts of all classes of thc eommunity. A summons has lately been issued against one of the nurses of the Homerton Fever Hospital for an alleged assault committed on a child who died there from scarlatina. The father, at whose instance the summons was brought, said that when he saw his ehild, some time after her admission, her throat had been cut in three places, she had a black eye, and complained that the night nurse had beaten her. A lengthy report from Dr. M'Combie, who attended the child, went to show that on the second week after her admission iuflammation of the glands on the right side of the neck set in. This necessitated lancing, matter being discharged at the time, and eontinuing to flow up to the time of death. Four or five days prior to death a gradual discoloration of the eyes and nose eommenced, and grew darker day by day. The lower eyelids became ecchymosed, but at no time was there the least swelling, which would have been the case if the diseoloration had resulted from violence. Beyond the statement of the ehild herself, he was unable to find the slightest foundation for supposing that she had been maltreated. Her eomplaint might have arisen from the fact that as she refused her medicine, some force was neeessary to get her to swallow it. A report to the Local Government Board, to whom complaint had been made, was also put in, in which Dr. M'Combie expressed his opinion that thc defendant was a valuable nurse, and that the charge owed its existence to a system of persecution towards her, which he was unable to put a stop to. Mr. Ricketts said the committee had decided to hold an inquiry, but it was stopped by the father obtaining this summons. After the evidence of two nurses of the hospital and Dr. M'Combie, Mr. Flowers, before whom the inquiry was held, stopped the ease, as he (thc magistrate) thought the evidence of Dr. M'Combie very satisfactory, and he was satisfied that thc black eye was not the result of a blow, but that it came on from disease, and gradually. The complainant, he added, might as well suppose that thc nurse had cut the child's throat, and that that was done to injure it. Persons in hospitals were, he eonsidered, often better taken care of than those at home. He was satisfied that the child had beeu thoroughly well treated, and in dismissing the summons he observed that there was not the slightest stain on defendant's character. It would be well if all eomplaints of eruelty and unkindness were as unsubstantiated as this.

### A MEDICAL STUDENT AND HIS WIFE IN THE POLICE-COURT.

The following unsavoury account is extracted from the *Daily News*:—

"William Stanley, described as a student of medicine, and Kate Stanley, his wife, were charged at Bow-street with violently assulting William Bell, the landlord of the Enterprise Tavern, Loug Acre. On Tuesday night, between eleven and twelve o'clock, the prisoners went into the Enterprise and asked for two glasses of fourpenny ale. This was served in tankards, as it was not usual to serve the cheap ales in glasses. The prisoners asked for a glass, and on being told they eould not have one, the female prisoner took up a pot of beer and threw it in Mr. Bell's face. While Mr. Bell stooped to pick up the pot the male prisoner leaned over the bar and struck him two or three violent blows with his walking-stick, breaking the stiek in the eentre. Mr. Bell had to be taken in a cab to the station to prefer the charge against the prisoners. There his head was dressed by the divisional surgeon. Mr. Vaughan sent William Stanley to prison for six weeks without the option of a fine, and sentenced Kate Stanley to pay a fine of £2, or twenty-one days' imprisonment."

It is rare for such an accusation nowadays to be brought against a *bonâ fide* medical student. So-called medical students are plentiful in police-eourts: further partieulars about Mr. Stanley might place matters in another light.

## PROFESSOR OWEN'S ADDRESS AT THE INTERNATIONAL CONGRESS OF ORIENTALISTS.

On Saturday, the 19th inst., the concluding day of the Congress week, Professor Owen, as President of the Ethnological Section, delivered, in the theatre of the Royal Institution, and before a brilliant assembly of over 200 Orientals and Orientalists, ladies and gentlemen, an address which is nothing less than a masterpieee of profound and abstruse learning, and which has been aptly deseribed as linking together "the oldest history with the newest science." In every sentence—nay, in every line—knowledge is concentrated, and there is eondensed into an hour's lecture such a mass of science as would require a volume to fully elucidate and long study to thoroughly investigate. Great and startling theories, too, are therein eontained, while his speeulations concerning the development of morality in primeval man, if they lead to no practieal result, are at least brilliant in conception, lofty in aim, and afford abundant matter for thought.

After a few remarks upon his position as president of the section, Professor Owen acknowledged the vast debt which Physieal Ethnology owes to France, by whose intellect was "first broken down the barrier that had arrested our estimate and eoneeption of past time in eonnexion with the existence of the human race and the origin of its varieties." He next referred to the value to ethnologists of the labours and researches of the philologists of Germany, more espeeially when their ethnological inquiries lead eastward; and made a graceful allusion in passing to that distinguished linguistic philosopher Max Müller. The services of Russia to ethnological science, he added, are perhaps less known and appreeiated in England than thoso of either France or Germany. Yet every military conquest by Russia in the heart of Asia has

been attended by the peaceful victories of ethnology, more especially as regards the linguistic evidences of the beginnings and affinities of races. It is to be wished that the example of Russia will be followed by Great Britain in any future exhibition of her power among remote, primitive, and little-known races of mankind, such as those of Abyssinia and Ashantee. This example had been anticipated by Indian scholars and administrators, whilst to the present centralised administration of India, ethnology is indebted for the issue of descriptions and photographs of the various races, castes, labourers, soldiers, and others, natives of Indian territories. In relation to these Indian photographs, Professor Owen remarked:—"It is known to ethnologists, and partly explicable by the physiologist, that the portrait-artist cannot perfectly succeed with the face of a race different from his own race. . . . A Papuan, *e.g.*, will have a French, German, or English cast of physiognomy, according as he has sat to a limner of one or other country. The work edited by J. Forbes Watson, M.D., and John W. Kay, F.R.S., entitled "The People of India," is, Professor Owen considers, a priceless contribution to Eastern ethnology. Of home ethnologists, more especially those who have brought to bear linguistic attainments upon man's ancient history, the lecturer referred particularly to Robert Gordon Latham, F.R.S., whose name will be as imperishable as that of Samuel Johnson, and whose "original works give him a distinct and lasting pedestal of fame as an elucidator of the affinities of human races." "For myself," said Owen, "as an archæologist I belong to that other species defined by my master in palæontology, the immortal Cuvier, '*antiquaire d'une nouvelle espèce*,' etc., and my habitual researches relate to periods transcending those expressed by the terms of historical estimates of past time." He then went on to exemplify hindrances to the progress of geology, which possibly may still tend to divert from its true course the science of Oriental races and families of mankind, and after illustrating his meaning by the examples of the Papuans of New Guinea and the Andamanese, he said—"In speculating, therefore, on the place of origin of Andamanese and hill tribes, I would impress upon ethnologists to set aside ideas of the actual disposition of land and sea as being necessarily related thereto, and to associate with the beginning of such low forms of humanity a lapse of time in harmony with the latest geological changes of the earth's surface." Further on he quoted his own words from the reports of the British Association, 1861,—"The cardinal defect of speculators on the origin of the human species seems to me to be the assumption that the present geographical condition of the earth's surface preceded or co-existed with the origin of such species." Then followed a very interesting account of the Andamanese, of whom photographs were shown at the meeting, with a theory as to the relation which their islands in the bay of Bengal bear to the nearest continent.

After this the lecturer proceeded to give a brilliant outline of what may be called "Egyptology," by relating his own ethnological observations bearing upon the race that founded the civilisation of ancient Egypt. In the first place, he premised evidence of the antiquity of the subjects on which those observations were made, for he said—"The want of this preliminary has vitiated studies akin to my own, and far superior to them in extent and devotion of research. I allude to the vast body of illustrations of the craniology of mummified Egyptians, with which the honoured name of Morton is associated." The skulls figured in Morton's great work are of ancient Egyptians, it is true, but of such as may have died at any time during 4000 years. Owen's own studies were not of skulls merely, but of skulls clothed with flesh—not of dead remains only, but of the living men and women contemporary with kings of the third, fourth, and fifth dynasties.

After detailing the considerations which, in his opinion, must have weight with the philosophical ethnologist and historian in propounding any theory worthy of acceptance of the origin of Egyptian monarchy or of the priority thereto of Chaldean civilisation, Owen continued—"It would be no exaggeration, in view of the conditions of Woodward's bequest to Cambridge, and those under which the gifted Buckland wrote his 'Reliquiæ Diluvianæ,' and beneath the social opprobrium that long hung over whomsoever ventured to interpret geological and palæontological phenomena adversely to dogmatic chronologies and stories of physical phenomena, to lament the loss of a century or more in attaining our present glorious liberty of looking, thinking, and prophesying on the antiquity of our planet and of the creatures that have enjoyed thereon the powers and privileges of life. The ethnology of the so-called Semitic races of mankind seems not yet to have attained that liberty; she still, I fear, hugs her chains, or a remnant of them. I appeal therefore to my fellow-Orientalists to cast away prepossessions as to time, place, affinity, race, for which there may not be rightly observed, well-determined data, and to bring to bear on the dark vistas of the past, in human history, the pure dry light of science. After chemistry, no science has been so sorely tried as biology, through changes of abstract terms; yet, when expressive of new and true generalisations and purgative of false notions, the gain has abundantly repaid and rewarded the trouble. Geology has abandoned the term 'diluvial' as applied, in relation to the Noachian deluge, to any sedimentary formations. In England we have found it inconvenient and misleading to use it even as an arbitrary designation. May the time be soon at hand when truer terms—and no one fitter to propound them than Max Müller—will be applied, in ethnology, to groups of peoples and of tongues now called respectively Hammonic, Semitic, and Japetic.'"

Numerous photographs of native races (Pharaohs and other Egyptians), a large map of Egypt, as well as a chronological table of the early Egyptian dynasties, were used to illustrate the paper. As the learned president remarked in the course of his lecture, it is truly marvellous that such records as Manetho's Lists and the Table of Abydos should have been handed down through 4500 years of vicissitudes, changes of dynasties, wars, invasions, and partial conquests of the land of Egypt.

## THE ROYAL COLLEGE OF SURGEONS, IRELAND, AND THE GENERAL MEDICAL COUNCIL.

The following remarks by the Council of the Royal College of Surgeons on the Report of the Visitors to their examination sent by the General Medical Council, and the discussion thereon in that body, are really capital reading. That illustrious body, the Royal College of Surgeons in Ireland, has never been notorious for the meekness of spirit which leads men to turn the cheek to the smiter. We make no doubt they heartily enjoyed the scrimmage and the preparation of this rejoinder at least as heartily as we have enjoyed the reading of it:—

"This Council, having carefully studied the Report submitted for their consideration and remarks, whilst they observe, with pleasure, that the visitors consider that the final examination 'combines, in a very appropriate and advantageous manner, a written, an oral, a clinical, and a practical examination,' cannot but regret that the visitors, in the exercise of their discretion, considered it desirable and necessary to dwell so minutely and at such length on certain defects in the examination which they knew and acknowledged that the Council of this College had already taken active measures to remove.

"With reference to the statement found in the commencement of the Report, p. 128—'We found, however, to our regret, that an important part of the examination, that, namely, in dissection, had taken place on the previous day,'—this Council would wish to remark that, in order to carry out the improvements in the conduct of the examinations at present in process of being adopted at the College, they found it necessary to require the dissections to commence on a day earlier than that which they had some time before informed the General Medical Council would be the day for commencing the examinations, and through inadvertence it was omitted to notify the General Medical Council of the fact, which, however, would have been done had any intimation been previously conveyed to them of the intention to have visitors present at the examinations in question.

"With reference to the request of the visitors to obtain possession of the written papers of the candidates for the diploma of this College, the grounds which actuated this Council in declining to accede to this unusual request, the adoption of which course, they regret to observe, has been made the occasion for the expression of much hostile feeling against this College, were:—

"I. That it was contrary to both the custom and invariable practice of this College to retain or preserve the candidates' written answers after their inspection by the examiners.

"II. That at the former visitation of the examinations of this College, conducted by an eminent member of the General Medical Council, no demand was made to be allowed to remove from the hall the written answers of the candidates.

"III. That this Council were not aware of any resolution of the General Medical Council authorising the visitors of examinations to demand the possession of the written papers.

"IV. That this Council were not aware that any other examining body had afforded a precedent for surrendering to the visitors after the termination of the examination the written answers of candidates.

"While, therefore, this Council will always be happy to afford every facility for inspecting, in the hall of the College, by authorised visitors, the written answers of candidates, they must continue to regard these answers in the light, more or less, of privileged communications, and not documents which, in any fairness, they can permit to be exhibited outside the College, and possibly printed and published. This Council are, in fact, strongly of opinion that, were they to allow such a course to be adopted, it would be little short of a breach of faith on their part to successful candidates for the diploma of their College. Neither can they see what possible advantage can be got from the publication of the written answers of rejected candidates; and they think that it is hardly a function of their College to add such exposure to the disgrace of a rejection.

"With respect to the defects in the system of marking, to which allusion is made in the Visitors' Report, these had been recognised by this Council at a time considerably anterior to the date of the last visitation of the examinations of this College, and a recommendation adopted for its modification, whereby will be rendered *impossible* the *improbable* contingency of one examiner swamping the votes of his colleagues.

"With regard to the suggestions made by the visitors, some of them, as endorsing their own views, this Council were glad to get, and either have adopted or are willing to adopt; amongst these may be mentioned those in reference to chemistry, forensic medicine, and histology. Always jealously alive to the necessity of modifying their examinations in accordance with the progress of medical science, this Council have, from time to time, made such alterations as they deemed requisite; and some time ago appointed a committee to report what changes and improvements were required in the form and style of their examinations. After most mature deliberation, extending over many months, a report was submitted to, and adopted by, this Council (a copy of which is herewith forwarded), which embodies, without exception, every suggestion, in their opinion, of any value contained in the Report of the Visitors of their examinations.

"In this Report it has been arranged to extend considerably the time for the writing of papers, and to include, in that part of the examination, questions on histology, which cannot satisfactorily be dealt with, as suggested by the visitors, at the oral examination; and whilst this Council are of opinion that botany should not enter into the subjects of examination for a *surgical* licence, they recognised its importance by retaining it in their curriculum. Provision also has been made for testing candidates in chemistry and medical jurisprudence, the latter subject having been deferred to the second part of the examination, where, in their opinion, owing to its comprehensive nature it should be placed.

"In the reports both on the junior and senior class examinations, this Council observe that the visitors take exception to the 'short time that is allowed both to the written and oral parts of the examination.' In their new scheme it is enacted that, for the first and second examinations, 'four hours shall be allowed' for the written examination; and that for the *vivâ voce*, 'one hour's examination at least,' shall be given. This Council regret that this modification was not even alluded to by the visitors.

"Other of the recommendations of the visitors this Council cannot adopt. Amongst these is their suggestion that, in the examination on operative surgery, only one student should operate at a time. This, considering the very large number of candidates that at times present themselves, this Council consider would be impracticable, and they cannot see that any serious inconvenience to either the candidate or examiners can arise from there being more than one candidate operating on the same subject. In commenting upon this portion of their examinations, the visitors also call attention to the advisability of the examiners 'submitting their questions to each other, or to the chairman, prior to the examination,' absolutely quoting a by-law of this College to this effect, and seemingly implying that the by-law in question is ignored by the examiners. Now, anyone conversant with examinations on operative surgery, conducted on a large scale, should be aware that such examinations could not be carried out at all were not such conferences held; held not so much for the purpose of securing 'variety in the operations' as to insure the practicability of thus examining a large class of candidates with but a limited supply of subjects. As a matter of fact, such conferences are always held, and, however they escaped the visitors' notice, were held at the examination in question.

"The visitors also seem to imply that the testing in operations is insufficient, drawing attention to the *apparent* similarity in the operations the candidates were called upon to perform. This Council reply that, in their opinion, it is unimportant the nature of the capital operation which the candidate may be called upon to perform, *so long as he is not informed of it beforehand;* the great object in view being to insure that all the candidates shall previously take out a course of operative surgery. The visitors also dwell upon the shortness of the time devoted to this portion of the examination. Upon this subject this Council would remark that, if *four* hospital surgeons, of large operative experience, are not competent to decide upon the merits of *five* candidates, so far as operative surgery is concerned, in the time admitted by the visitors to have been devoted to their examination (thirty-five minutes; a candidate being told off to each examiner), then, indeed, must they admit that their examiners are unequal to the task allotted them.

"In connexion with this subject this Council cannot avoid remarking, with regret, that the members of the General Medical Council failed to support the resolution brought forward by the representative of this College at the recent meeting of the General Medical Council (Minutes, p. 77)—viz., 'That, in the opinion of this Council, all examinations on anatomy should, so far as practicable, include the performance, by each candidate, of actual dissections; and that all those on surgery should include the performance, by each candidate, of two or more operations on the dead subject.' This resolution, embodying, as it does, the collective opinions of this Council, composed, for the most part, of hospital surgeons, all of them for several years engaged in the practice and teaching of surgery, should have commanded the support of the General Medical Council.

"A comment similar to that made with reference to the examinations on operative surgery has been hazarded by the visitors respecting the clinical examination—viz., 'The examination in clinical surgery was strictly limited to the etiology and diagnosis of the cases exhibited. No questions were asked as to the various methods of treatment that might be adopted, nor as to the result that might be anticipated, though all the cases seemed to us to afford a fair opening for such inquiries.' On this the Council of the Royal College of Surgeons in Ireland have to remark that the clinical examination requires much delicacy and tact. The patients on whom they are conducted are, for the most part, under the treatment of other practitioners, and have heard the clinical remarks made by them on the nature and treatment of their ailments. They must now listen to the observations of the candidates and examiners, and it can be readily understood how a conflict of such opinions might lead to a hospital being closed altogether against clinical examinations. This Council are, therefore, distinctly of opinion that the object of clinical examination should be diagnosis, pure and simple, and that treatment, which can only be elicited by question and answer, should be relegated to the oral examination.

"As regards the suggestion that there should be a conference between the examiners in reference to the value of the marks to be awarded to each candidate, this, in the opinion of this Council, would be most undesirable, as they are strongly of opinion that each examiner should feel himself quite independent and unfettered in forming his estimate of the professional attainments of each candidate. In exceptional cases, however, it is allowed their examiners to hold such conferences; and the visitors themselves, at p. 136 of their Report, mention an instance where such a conference did actually take place.

"With the opinion expressed by the visitors—that 'the quarter-hour system of examination at successive tables is not well adapted for testing adequately the requirements of candidates'—this Council must join issue, as, after long experience, they are convinced that examiners who cannot in this way determine, in conjunction with a written, clinical, and practical

examination, whether a candidate possesses the requisite amount of knowledge, are incompetent to discharge the duties which they have undertaken. With reference to this portion of the examination, a remarkable mis-statement is to be found in the Report, p. 131—'We are of opinion that two written questions on anatomy and one on physiology do not afford a sufficiently searching test of a candidate's knowledge of these important subjects, even when supplemented by an oral examination of *thirty minutes, by two examiners.*' The fact being that the oral examiuation is conducted on these subjects by *three* examiners, two on anatomy, for fifteen minutes each, and one on physiology, for fifteen minutes, in all forty-five, instead of thirty, minutes. What renders this mis-statement remarkable is, that the visitors state the facts correctly in another part of their Report, p. 129.

"The doubt expressed iu these words, to be found in the last paragraph of the first Report (p. 133), 'The examinations, *if* the dissection be fairly carried out,' this Council would remark is unworthy of the visitors, and by no means to be excused when contrasted with the following statement made by the same visitors in an earlier part of their Report (p. 128): 'We were informed that every student had been required to dissect for about half an hour, and on examining the subject, we found that the vessels, nerves, and museles of the axillary space on both sides, as well as those of the right side of the neck, *had been fairly* made out, and that the skin aud superficial fascia of the inguinal region and upper part of both thighs had been reflected"; an amount of dissection, in the opinion of this Council, quite sufficieut to test the knowledge in practical anatomy of the very small number of candidates examined on that occasion—eight, of whom seven were rejected. Did any suspicion lurk in the minds of the visitors that the dissections had not been *fairly* carried out—had they any grounds for entertaining such a supposition, they should have boldly given expression to it in unequivocal terms. If, on the contrary, they entertained no sueh suspieion, then never should this sentence have found place in their Report.

"With refcrence to the following remarks of the visitors, in the first paragraph, p. 142:—'The examination in the practice of medicine, by two of the examiners, was on erysipelas, permanent patency of the aortic valves, and hypertrophy of the heart, pleurisy, and pneumonia. A few questions were asked on treatment, but it was not possible, within the time allowed to each examiner, to give a full or satisfactory examination on any of the diseases.' From the language in which the visitors have couched this sentence, it might be inferred that every candidate had been examined, within the fifteen minutes allotted to the *vivâ voce* examination on practice of medicine, upon all of these diseases—a style of examination which would, indeed, be of a superficial character. Such, however, was not the fact, some of the candidates having been examined on one, some on another, of the diseases enumerated.

"With referenee to thc selection of the visitors employed to report on the system of examination pursued at their College, this Council would remark that, to report upon the examinations conducted for surgical lieences, it is their opiuion that operating surgeons and practical anatomists are the proper persons to whom the discharge of such duties should be confided. Visitors, no matter how otherwise eminent they may be, unless they also fulfil these conditions, cannot be supposed to be familiar with the requirements to be expected from candidates for surgical licences, nor can their reports be expected to have much weight attached to them by persons whose life-long work has been the discharge of surgical duties. And this Council cannot avoid remarking how much it is to be deplored that, in making their selections of visitors outside the members of the Council, the Executive Committee did not act in accordance with the view expressed in the fourth paragraph of the Report of the Committee on Visitation of Examinations (p. 62, vol. x., Minutes of Medical Council), viz.:—'That each examination reported on shall be visited by a due proportion of members of the branch Councils *other than the one in that division of the kingdom where the examination is conducted*,'—all the outside visitors in the past year having been selected from but one of the divisions of the kingdom.

"In concluding their remarks, this Council would wish to observe that it is much to be regretted that the course pursued by the majority of the members of the General Medical Council, when the consideration of the Report of the Visitors of the Examinations at the Royal College of Surgeons in Ireland came under discussion, was so completely at variance with that pursued in the case of the other bodies reported upon. This Council feel that such a line of conduct was as unjust as it was uncalled for; especially uncalled for when the members had been informed by their visitors that the Council of this College were busily engaged in remodelling the mode of conducting their examinations, and in remedying any defects which might be supposed to exist in them. They have failed to find in the Report, especially when they compare it with the reports of the visitation of the other bodies submitted to the consideration of the General Medical Council, any justification for a resolution, the tone of which is so calculated to engender feelings of irritation, and to disturb the harmony which should exist between the General Medical Council and the medical authorities. Having planned, long before the visitation, every modification worthy of consideration suggested by the visitors, they are putting these modifications into actual and immediate operation, even without receiving a guarantee (to which, however, in justice to their corporation, they feel themselves to be entitled) that a similar examination will be required from any other of the medical authorities claiming the registration of their licence; and this, too, notwithstanding their knowledge of the fact, of which they have had repeated painful experience (a fact of which the members of the General Medical Council also, after their late meeting, can no longer plead ignorance), that candidates rejected by one of the licensing bodies can secure, without loss of time or further preparation, through another portal, insertion of their names on the General Medical Register."

## SANITARY APPLIANCES AT THE INTERNATIONAL EXHIBITION.

### No. II.

London has now attained to the proud position of being one of the healthiest cities of the world. No town has more need of carefully constructed systems of ventilation and drainage; and, fortunately, London has for many years been the centre for promoting efficient means for the disposal of refuse, and the construction of suitable homes for the poor. We recently described the working models for purifying sewage, as exhibited in the west garden of the Exhibition. We shall now describe the various appliances to be found in the south galleries and corridors relating to improvements in sanitation.

In the passage leading to these galleries, Messrs. Doulton, Jennings, and others exhibit drain-pipes and traps arranged to prevent the possibility of noxious gases returning from the main sewer into the house. All of these are constructed upon the same principle—viz., with a cup-shaped enlargement below the outlet and inlet orifices, both of which communicate with their connecting pipes below the level of the crown of the trap. In this way the gases would have to pass through the water which always remains in the trap before it could get access to the house-drain. To be efficient, they must be capable of being flushed or cleansed, so that the trap itself does not become offensive. Messrs. Doulton exhibit a great variety of traps, modifications of the U-shaped bend, some having a ventilating shaft filled with charcoal. Greig's traps have been extensively used on the Redcliffe estate, and have proved very efficient; the downward sweep of these traps is so gradual that there can be no lodgment of sediment after flushing. The crown of these traps is provided with a covered opening for cleansing purposes. We have had the opportunity of practically testing another form of trap, manufactured by Mr. Dean, of Leamington, and have found them most useful. These are intended more particularly for yard and sink drains. A small iron pail fits into the earthenware dip of the trap, which receives all the sediment. This must be removed for the purpose of cleansing at intervals of about a fortnight. The special advantage of this form of trap is, that, unless wilfully neglected, it cannot get out of order, for the open grating at the top shows whether it requires to be cleansed or not.

For flushing drains and for regulating the disposal of sewage there are three or four exhibits, syphon action being the principle upon which they are made self-acting. The syphon is connected with a tank, which, in the case of Field's flush tank, receives clear water, and with Denton's sewage regulator receives sewage. When the tank is nearly full the syphon acts automatically, and draws off the contents, flushing rapidly a drain or distributing sewage by an intermittent

process, so that where the quantity of sewage is irregular, a precise quantity may be apportioned to the land which during the interval has been at rest, so that undue saturation may in this way be prevented. To meet the requirements of the Metropolitan Water Act of 1871 with reference to a constant supply where practicable, a great variety of water waste preventors are exhibited, some intented for existing cisterns, and others for towns where a constant supply obviates the necessity of storing water in cisterns. A small tank is provided to contain the maximum of water that can be drawn off at a time—*i.e.*, about a gallon. The tank fills slowly when the valve is again closed.

Moule's and Gibson's Earth Closets are exhibited by the patentees. These have been already fully described in our column for New Inventions. The advantage of Gibsons' closet is that slops, urine, etc., are conducted to a separate receptacle.

The Universal Charcoal and Sewage Company exhibit various specimens of charcoal prepared from town refuse, to show the utilisation of the most worthless products of factories, road-swecpings, and night-soil. After being subjected to incineration by furnace-heat, they are quite deodorised, and the derived charcoal is used for the filtration of waste and impure waters. The sewage of Salford is collected by the authorities on "the pail system," and this Company has obtained the contract for disposing of all the refuse brought to the town yard.

The offensive odour emitted from the pan and container of water-closets is obviated to a great extent by a very simple contrivance. The Universal Disinfector Company have patented an apparatus to be fixed to the lever of the water-closet, having a small tube passing over the lip of the pan, which scatters a limited quantity of Condy's or other disinfectant over the fresh water circulating in the pan when the plug is drawn. The Commissioners have had this apparatus fixed to all the closets in the Exhibition, and it is found to be working admirably.

Mr. James Howorth has sent working models of his Archimedean Screw Ventilator, designed to prevent down-draughts and sulphurous smells in chimneys. Varieties of Moore's Louvre Ventilators for windows are also exhibited. Heal and Co. have sent a model of their weather-proof ventilators made of zinc.

Several inventors have sent filters of various construction, the filtering medium being usually prepared charcoal. Mr. Head, of Notting-hill, exhibits a carbon air-filter for filtering and purifying sewer-gas before it can obtain entrance into houses. This apparatus is fixed to the head of outside rain-water pipes, and the air is completely purified before passing through the cover to mix with the external air.

The Metropolitan Association for Improving the Dwellings of the Industrious Poor exhibit the model of a house in Spitalfields, showing a system of ventilation through a distinct flue at the back of the ordinary chimney.

Those interested in sanitary improvements are strongly advised to visit this department of the Exhibition.

## QUACKS AND QUACKERY.

England has been called "The Paradise of Quacks," and there can be no doubt that the aphorism is a true one. There is no country in the world where quacks and quackery are tolerated to the extent they are in this country. Quackery assumes such a multitude of forms that it is impossible to enumerate them, but a few may be mentioned. In the profession qualified practitioners are permitted to patent secret remedies, to advertise them in an unblushing manner, and to derive a large emolument from their sale. Neither the Legislature nor the Medical Council nor the Colleges interfere to repress so gross an outrage on decency and the welfare of the public. Practitioners even of standing and some scientific reputation publish books on special subjects, recommending some "specific" remedy, and naming some druggist whom they have chosen as their medium for the sale of their "specifics." These books and these remedies are advertised with great pertinacity in the public papers, and unfortunately in too many instances these advertisements are fortified by quotations from medical or pseudo-medical journals in favour of the vaunted remedies. That immense evil is inflicted on the public by this mode of proceeding is unquestionable. It is true that protests against this vicious system have been made by the Royal Colleges of Physicians and Surgeons, and apparently with some temporary benefit. Some advertisers have ceased to advertise in an objectionable form, but many still continue to pursue the puffing system under a less objectionable, but scarcely less efficient mode. Special "hospitals and dispensaries," as they are called, flourish, and advertisements may daily be seen in the newspapers in the form of paragraphs stating the number of patients received, the "cures" that have been effected, and the numbers of those who have been relieved and of those who still remain under treatment. Another element in this mode of advertising has of late become exceedingly prevalent. In the second column of the *Times* every morning may be seen advertisements of receipts of donations and subscriptions to these so-called "hospitals and dispensaries." Is it possible to conceive anything more derogatory to the honour of the profession or to the furtherance of claims that are, to say the least, likely to mislead the public? Out of the profession, the advertisements of quack medicines, respecting which there is no guarantee of their value, are legion. Many of these remedies are decidedly injurious—some of them positively dangerous. But the Legislature, whose motto should be *Salus populi suprema lex*, refuse to prohibit their sale. On the contrary, they patronise these secret and often pernicious remedies by granting to their proprietors a Government stamp, without which they could not be sold. The revenue derived from this pernicious source is infinitesimal in amount to a great country like England. It is strange that no Government has been found strong enough to interfere with or stop this abuse. Why is it? Columns of some of our metropolitan newspapers, and notably those of the provinces, are filled with obnoxious advertisements of quack medicines. Any Government which interfered with the purpose of stopping these "appeals to the public" would raise a storm against them which might be fatal to their political existence. Under these circumstances we place before our readers an extract from the *Canada Lancet*, which contains wholesome views and suggestions on the subject—views and suggestions which are especially applicable to the present position of "Quacks and Quackery" in England. Dr. George Grenier, in the paper in question, says that "Charlatanism makes its inroads into our society under two principal forms. The first is by means of remedies, called both in Canada and elsewhere 'patent medicines,' with which the country is literally flooded, and which are for the most part pernicious drugs; and the second is by those persons, in the proper sense of the word charlatans, who sell their medicines and bestow their personal attendance on the sick. In our present state of society, the former of these is more difficult to suppress than the latter; nevertheless, both are susceptible of being modified.

"Errors in the application of patent medicine are sufficiently frequent, and in most cases injurious to the individual health. Hence it is our duty as guardians of the public health to warn the public of the dangers to which they expose themselves by trusting to these remedies; for most of these secret remedies are nothing but vile compounds, and owe their popularity to the ingenious way in which they are advertised by every possible means.

"To reach this difficulty in an effective manner, the law should prohibit the advertising and sale of every secret remedy, whether it is without virtue, or whether it is injurious to the health and even dangerous to life, or whether it may be useful in relieving the sick. For, in the first two cases, it is the duty of the Legislature to prevent charlatanism from imposing a tax upon credulity, and from occasioning fatal accidents; and in the last, the good of society demands that every means useful in the art of healing should be promulgated.

"Any physician who is solicitous about his professional honour will not keep secret a discovery that is useful to suffering humanity; on the contrary, he will be the more eager to make it known in proportion to his convictions of its greater importance. Those who pursue an opposite course of conduct are, by the unanimous opinion of the medical body, left to themselves, and regarded as outside of the pale of the profession; but, fortunately for our honour, such persons are rare amongst us. The code of etiquette adopted by the Canada Medical Association is very explicit on this point. After having declared it to be contrary to the dignity of the medical profession for medical men to have recourse to public notices, to circulars

for attracting the attention of persons afflicted with any particular kind of disease, to offer publicly their services gratis to the poor, or to warrant cures, to publish their operations or cases in non-medical journals, to boast of their cures or their remedies, to produce certificates of cures, and, in fine, to resort to any of the means generally employed by charlatans, the code continues, Art i., sec. 4, . . . . A physician degrades his professional character by obtaining a patent of invention for any remedy or surgical instrument whatsoever, and by prescribing a secret remedy, the knowledge of whose composition, or the exclusive right of which, belongs to himself or others. . . . . Equally reprehensible are physicians who give certificates attesting the efficacy of secret or patent medicines, or in any other manner favour their use.

"In preventing the advertising and sale of all secret preparations, it may seem as though a wrong would be done to the inventors of appliances really useful by taking from them the power to enjoy the advantages accruing from their labours.

"But to prevent the science of medicine from suffering in any case by being deprived of useful discoveries, there is nothing to hinder the adoption of a law similar to that which regulates such matters in France. Studious to prevent charlatanism there, the law strictly prohibits the sale of all secret remedies and traffic in them for medicinal purposes, all exhibitions of drugs and medicinal preparations upon stands or in stalls at fairs, markets, and other public places; all advertisements and printed handbills that set forth secret remedies under whatsoever name or title they may appear. (Act of April 11, 1803, Art. 32, 3 C.) And by a decree of August 18, 1810, permission could not be given to the originators of any remedy, either simple or compound, while they maintained the composition of it a secret. Any person who might discover a new remedy, and who desired to turn it to advantage, must deposit the recipe of its composition with the Minister of the Interior. The Minister then appointed a commission for the purpose of—1st, examining its composition, and deciding whether its administration might, in certain cases, be dangerous and hurtful or not; 2nd, if the remedy was not dangerous in itself, whether it had produced, or whether it was still producing, beneficial effects on mankind; 3rd, what price should be paid the inventor of a remedy adjudged to be useful, for the secret of its composition; proportioning the price—1st, according to the merit of the discovery; 2nd, to the benefits which have arisen or which may be hoped for from it in the relief of human suffering; 3rd, to the personal advantages which the inventor had received, or which he might expect to receive from it. In cases where the inventors were dissatisfied, a commission of revision was appointed. After this, the Minister of the Interior entered into an agreement with the inventors, and the secret was directly published.

"Since the ordinance of December 20, 1820, establishing the Academy of Medicine, the examining of secret remedies has belonged to that learned body. In France, then, the inventor of a new remedy cannot legally gain personal advantages from it as a secret remedy. He can of course keep his secret, but it would be in his hands a property that brings him no return; and as the law prevents druggists as well as others from selling secret remedies, druggists have no advantages over others in this matter.

"Should a person desire to reap the benefit of any invention, he may, in conformity with the decree of August 18, 1810, propose to the Government to make over to them his secret by selling them his recipe. Then, after having had the opinion of the Academy, the Government may, if they judge proper, enter into an agreement with the party on the proposed terms. The formula is then published, and the remedy, thus made public property, may thereafter be kept ready prepared by every druggist, just as the preparations authorised by the Codex are.

"But the inventor, without selling his secret (according to a decree of May 3, 1850), may consent to its divulgation without pay. The formula is then submitted to the Academy of Medicine, and after its having been approved of by the Minister it is published in the *Bulletin de l'Académie*, and thus made public property, like any medicine described in the Codex.

"In this case, of course, the inventor derives no pecuniary advantage from his invention, but he has the satisfaction of having bestowed a benefit upon mankind by making known to them a discovery which in his hands would have remained useless. It is usually the case, however, that care is taken to retain the exclusive proprietorship, either of the form, the colour, or the wrapper of the medicine, or of some particular name or title, any of which may become private property, without constituting the medicine such; and thus by the force of circumstances it comes to pass that the advantages of its sale are almost exclusively retained. (Briand and Chaudé.)

"In France, then, according to the actual state of law and jurisprudence, every preparation not described in the Codex, or the formula of which has not been published by the Government, or in the *Bulletin* of the Academy of Medicine, is considered a secret remedy, and its advertisement and sale are prevented by severe penalties. And numbers of convictions are actually made. Moreover, by the law respecting patents of invention, pharmaceutical compounds or remedies of every kind are held incapable of being patented.

"M. P. Dupin, a law reporter, expresses himself as follows, in reference to this matter:—'It is an admitted fact that there exists, unfortunately, an inveterate prejudice—a belief in the popular mind so deeply fixed that it cannot be uprooted—that the granting of a patent carries with it a guarantee of utility and worth in the article patented,—that the Government has examined, adjudged, and approved of it, and that in consequence of this it recommends itself to the confidence of the citizens. This impression produces so many bad consequences when applied to matters affecting the public health, that to thus expose credulity to the mercy of charlatanism, or of those who generally take out patents of invention, would be a monstrous error.'

"As before stated, the adoption of a law similar to the above is very desirable for Canada. It would be no difficult matter to appoint commissioners, or to delegate to the College of Physicians and Surgeons the powers which are exercised by the Academy of Medicine in France. The United States, though considered emphatically the home of quackery, have taken the lead of us in this matter. The draft of a Bill to prohibit by penalties the advertisements of abortionists, and others equally immoral, handbills, and indecent images, was recently submitted to the Legislature of the State of New York. *L'Union Médicale* of France, commenting on the above, remarked that the first step had been taken towards repressing those evils, and that this should lead their legislators still further. Roguery is practised with such facility by means of medical advertisements that these should be suppressed like other crimes and immoralities by punishing their perpetrators.

"If public opinion in Canada is not yet ready to accept a system of regulations as strict as the foregoing, it is proof that false ideas on this important subject still prevail. We ought to continue, notwithstanding, to agitate this question, and to place it before the public in its true light by showing them that the general good requires this sort of legislation. By this means we may at last give to public opinion, perhaps, a direction and force that will secure the much-desired end."

On the face of them these regulations seem perfect, but we know that they do not invariably attain their object. What would Dr. Grenier say to a lying formula being deposited, and on the strength of this a preparation differing utterly from that indicated by the supposititious formula being sold in its place?

## FROM ABROAD.

### Morphia-Poisoning Successfully Treated by Atropia and Electricity.

In the *New York Medical Journal* for August, Dr. Trask relates his own case in most interesting detail, but of which our space only admits of our giving an abstract. On March 25, at eight o'clock, on sitting down to breakfast, he took what he supposed to be a dose of sulphate of quinine, but which really consisted of the sulphate of morphine, the quantity taken being about six grains. Very little breakfast was taken, and it was not until three-quarters of an hour afterwards that the mistake was accidentally discovered, the head symptoms which had begun to show themselves not having been much noticed. Two doses of sulphate of zinc were now taken without causing vomiting; and while assistance was sought for, the patient injected his own arm with thirty drops of solution of atropia, one grain to the ounce. This seemed to exert an immediate antagonistic effect, the influence of the morphia, which had become very marked, being greatly checked. But this was only for a few minutes, so that another thirty drops were

injected. A mustard emetic with large quantities of warm water was also given, and was soon returned without any food accompanying it. Other doses of atropia were injected, and an electro-magnetic machine got, the patient superintending getting it into play by the exertion of a great effort of the will, under the conviction that others might not understand its working so well as he did himself. However, he gradually gave way under the influence of the morphia, and sank into absolute unconsciousness about two hours after this had been taken.

The future progress of his case was afterwards detailed to him by Dr. A. Smith, who has had much experience in the use of the electrical current. An injection of atropia solution of double the strength had been administered, brandy and coffee were freely given, and as long as possible walking was enforced by relays of assistants until about three hours after the morphia had been taken, when all power of motion had ceased. At 11.45 he was in a state of profound coma, with a feeble and irregular pulse at 124, and irregular respirations at 13. The inspirations were scarcely perceptible, while the expirations were very long, and given with a groan. A two-celled Kidder's battery was employed, the poles being applied to the phrenics just above the clavicles. Within half an hour the pulse became less rapid and stronger, and the countenance of a less leaden hue, and after a while some brandy and water was swallowed, the reflex action produced by attempts at this aiding in the oxygenation of the blood. The atropia was continued (so as to keep the pupils moderately dilated), as were the stimuli and battery, care being taken not to keep the body in any one position more than fifteen or twenty minutes, so as to guard against pulmonary congestion and subsequent pneumonia. At 12.30 the respirations were 14, and the patient quite comatose. At 2 p.m. respirations were 18, and the pulse 108, and by great effort he could be partially aroused. The poles were applied over various parts of the body, but the most decided efforts were produced by applying them to each phrenic in the neck. At about four active delirium began to manifest itself whenever the patient was aroused from stupor, into which he again relapsed. This continued until about six, when it gradually abated, and disappeared about eight. From seven to ten almost continuous efforts of friends were required to keep him awake, although all this time he desired to engage in conversation. At 12 p.m. he related a long case without once losing the thread of the story. He then had a night of broken sleep and wandering intellect. Next day the symptoms due to atropia-poisoning were very marked; and Dr. Trask feels certain that all those due to morphia had disappeared sixteen hours after the accident, and those due to atropia passed off after sleep. Great prostration of the nervous system followed the accident, and it was not until after some weeks and change of scene that health was restored.

In his case, Dr. Trask believes that the influence of the atropia in mitigating and eventually triumphing over the morphia was very evident, especially as seen in the short duration of profound narcotism and in the persistence of symptoms due to atropia eighteen hours after those due to the morphia. An important point is the equivalent quantity required for neutralisation, for if given in excess the patient might be destroyed by the one substance as easily as by the other. In this case it is calculated that about $\frac{1}{11}$th of a grain of atropia was injected for each grain of morphia swallowed. Dr. A. Smith, from the experience of two other cases, concludes that from $\frac{1}{21}$th to $\frac{1}{32}$nd of a grain suffices. Dr. Weir Mitchell states that he has given three $\frac{1}{3}$rd-grain injections of atropia in poisoning by four grains of morphia, and the patient recovered. Within these rather wide limits it will be better to inject moderate doses, and to repeat these until the pupils are sensibly dilated, and to keep them so dilated until the symptoms of opium-poisoning disappear. Dr. Trask is also disposed to believe that the great nervous prostration under which he afterwards suffered, and especially the loss of locomotive power in the lower extremities, is to be ascribed to the influence of the atropia; and if this view is correct, it is an additional reason for seeking to discover the least dose that will neutralise the cerebral symptoms produced by a given quantity of morphia. The importance of the faradic current in keeping up the respiration in cases of opium-poisoning cannot be overestimated, the application of the electrodes over the phrenic nerves just above the clavicle having in this case, and in one published by Dr. Schweig, given the best results of all modes tried. In Dr. Schweig's case the patient was evidently saved by the electric current alone; and it would seem not too much to affirm that by the injection of atropia and the judicious use of a *sufficiently powerful* faradic battery very few cases need prove fatal.

At the same time as Dr. Trask took the morphia by mistake, three grains were also given to a young lady visitor, and somewhat less than two grains to his full-grown daughter. The former in two hours became seriously ill, but was kept walking three or four hours in the open air before being allowed to rest. In his daughter's case active exertion and mental anxiety are supposed to have prevented narcotism.

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### Gunshot Fractures of the Limbs.

In the section for the Medical Sciences at the meeting of the French Society for the Advancement of Science, recently held at Lille, M. Cuignet read a paper upon "The Consequences of Gunshot Fractures of the Limbs," the material for which had been principally derived from the examination of wounded soldiers who were applicants for pensions. The following are the conclusions which he arrives at:—1. Although during the late war amputation was resorted to more frequently than expectation, a larger number of the wounded survived through the agency of expectation than through amputation. 2. Expectation was more frequently employed in consequence of circumstances independent of the surgeon than as a fixed mode of treatment. 3. Recoveries through conservative treatment were obtained in spite of numerous removals and other unfavourable conditions, and in spite of the gravity of the wounds of the thigh, knee, and leg,—encouraging surgeons in the practice of abstention, especially when it is remembered that the means of transport and modes of deligation are continually improving. 4. Amputation is followed by very bad results, whether as regards life or function; and when it cannot be employed within the short delay which renders its consequence less disastrous, it ought to be abandoned in the majority of bad cases of comminuted fractures, reserving it for extensive mutilations. 5. Resections, which are as unfavourable as amputations in regard to the chances of life, do not in general furnish good results with respect to function. This is especially the case in resection of the elbow, which should be proscribed almost as completely as amputation. 6. M. Cuignet therefore comes to the general conclusion that expectation will insure the lives of the wounded, and the preservation of the functions of the parts, more effectually than the most skilful and most active intervention.

During the discussion which ensued, M. Ollier observed that, although an advocate of conservative surgery, he could not follow M. Cuignet in his conclusions; and, in fact, in order to justify them, it would be requisite to have an account not only of those who had survived, but also of those who had died under the system of abstention. His own experience as regarded excision of the elbow led him to a different conclusion. This operation, proscribed from the beginning of the war by one of the chief military authorities, was too seldom practised. He had himself performed it seven times during that period, and only one of these patients died of a cause quite independent of the operation. Of these six cases, in three a stiff joint ensued, the limb having been forgotten in its splint; but in the other three satisfactory motions were obtained, the extensor power being sometimes almost normal. This is surely a better result than would have been derived from expectation; and in excision of the shoulder excellent results may also be obtained when the circumflex nerve, and consequently the contractility of the deltoid, can be preserved. As a general conclusion, he considers that excision of the upper extremity is good practice, and especially when the periosteum can be preserved—an operation requiring both time and attention. He condemns hasty amputations, believing that a limb with even incomplete movements is preferable to an artificial limb.

M. Laussedat, speaking from what he had observed at Brussels during the late war, considered the practice of abstention excellent. In thirteen cases of very bad fractures of the limbs, aggravated by the absence of all prior treatment and by successive transports during several weeks, recovery took place in all of them, and that notwithstanding the existence of purulent sinuses, resorptive fever, and other complications. This result was the more remarked as in a neighbouring ambulance, in which amputation was of frequent occurrence, all the patients died. M. Giraldès believed that M. Cuignet's conclusions were too rigorous, especially as regards wounds of

the elbow. During the June days of 1848, when the round projectiles were in use, abstention was practised, and all recovered. But during the late siege, acting upon his recollections of 1848, he tried to treat the wounds of the elbow by expectation, and all his patients died—the fragments of bone, keeping up suppuration, led by their presence to osteo-myelitis, and at last rendered even amputation impossible. The conclusion he draws is that in surgery we must not lay down too general therapeutical rules, but must be guided by the circumstances amidst which we are placed. M. Verneuil believes that no accurate statistics can possibly be derived from military surgery. During war-time special localities or special circumstances may render any procedure, whether active or passive, alike in its results. Thus at the commencement of the siege of Paris, in September and October, all went on well, the wounded all recovering, however treated. But from November the scene changed, and it might almost be said that a wounded man was a dead man. With respect to injuries of the elbow, M. Verneuil sees a good many cases from railway accidents at the Lariboisière, and he never performs primary excision. He has often, however, to resort to secondary excision, compelled to it by the bad results obtained from expectation, which certainly should not be raised into an absolute rule of treatment in injuries of the elbow. As to M. Laussedat's thirteen cases, they demonstrate nothing as to the superiority of expectation, for during the many weeks traversed by them there was ample time for those to die also whom the practice of abstention killed. M. Trélat observed that since the writings of M. Sédillot, and the publication of the statistics of the Crimean and Secession wars, etc., conservative surgery, proceeding hand in hand with the improvement of apparatus, has gained considerable ground. M. Cuignet states that too many amputations were performed in the late war; and if so this may have been somewhat due to the youth and inexperience of the surgeons who had to be recruited. Another reason, however, for numerous amputations may be found in the great employment which was made of artillery, which induced such great destruction of soft parts as almost necessarily to lead to amputation. As to the influence of circumstances, numerous examples have occurred. Thus, after the battle of Mouzan, shortly prior to that of Sedan, all the wounded did wonderfully well, operations and expectations alike succeeding, owing to the excellent *morale* of the soldiers. Nine days afterwards the Prussian occupation came, with its requisitions and privations. The *morale* is changed; gangrenes and infections appear, and all success has vanished. The therapeutics and statistics of fields of battle will not follow any general laws, and we have only to do with indications and facts dependent on local circumstances. This reservation borne in mind, we may yet admit that conservative surgery is, and ought to be, the general tendency of the present time. M. Cuignet, in reply, observed that if he had stated his conclusions somewhat strongly, this was because he well knew the partiality entertained by military surgeons for amputating, so that this is still performed in excess. We have no statistics on the matter, it is true, but we have only to listen to the statements of the surgeons themselves, and to those of the wounded. Moreover, if out of thirty applicants for pension twenty-four are found to have been treated conservatively, and six by amputation, is it not a fair conclusion, in the face of the great frequency of this latter, that this inequality in the relative number of the survivors is dependent upon the number of fatal results proceeding from amputation?

THE RAVAGES OF THE PHYLLOXERA.—At the last meeting of the Academy of Sciences, M. Dumas expressed his fears that a desire to satisfy a mischievous curiosity which had actuated certain observers had induced them to bring specimens of the apterous and winged phylloxera to Paris, in order to examine more at their ease, without ever considering the danger of the procedure. For, in fact, if this dangerous insect attacks the vines near Paris, those of Champagne are likely to become victims of its ravages in a far shorter time than if it became disseminated only from its present centres of operations. It has been calculated that at least five or six years must pass before the Champagne vines become attacked, supposing the progress of the plague be not arrested; while a year or two would suffice if the dissemination took place from Paris. It is doubtful how far present legislation gives the power of arresting this transportation, but the Academy has addressed a notification of the danger to the Government.—*L'Institut*, September 16.

## REVIEWS.

*Contributions to Practical Surgery.* By GEORGE W. NORRIS, M.D., late Surgeon to the Pennsylvania Hospital; Vice-President of the College of Physicians of Philadelphia; Member of the Société Médicale d'Observation of Paris, etc. Philadelphia: Lindsay and Blakiston. 1873. Pp. 318.

THE name of Dr. Norris is well known to surgeons and to readers of surgical literature, for Norris's statistics are amongst those most frequently quoted in all writings bearing on the results of operations upon the larger arteries, and upon fractures and amputations. At the time when many of the contributions contained in the volume before us were first given to the profession, the statistical method of research was novel and somewhat mistrusted in surgery; and although it is still a good deal suspected, and is often conducive to much error, still, if the statistics themselves are comprehensively obtained and cautiously reasoned from, the method is one of much utility in most kinds of investigation. No labour and no care were spared by the author when collecting the materials for his tables in order to make them correct records of results obtained, and a reliable guide for future practice.

In the first class of statistics noticed in this volume we have, however, a good illustration of the want of accuracy which is only too often inseparable from the statistical method, and renders it invalid for some purposes of argument. We refer to the statistics of fractures and dislocations treated in the Pennsylvania Hospital during the twenty years from 1830 to 1850. In these tables no distinction is made between compound, comminuted, and simple fractures; all are thrown together as "fractures," except in the case of compound fractures of the thigh. Again, under the head of fractures of the arm are included fractures of one or both bones of the forearm, as well as of the humerus; while under fractures of the leg are collected those of either the fibula or tibia, as well as fractures of both bones together. This is not the fault of the author, but the unavoidable weakness of the method, which reflects itself in the author's work, and makes it comparatively useless, however laborious it may have been. If records are kept with the view to furnishing future statistics, this is one thing; but it is quite another thing to build up statistics from records which have been made in such a fashion that there is no means of ascertaining whether the cases included were simple or compound fractures, or whether a fracture of the arm means a broken humerus, or a broken radius or ulna, or both, or all together. To endeavour to draw any valid conclusions as to the relative frequency, or as to the results, of injuries, from such entries seems about as useful as the attempt to gather grapes from thorns or figs from thistles.

The second statistical account is that of cases of amputation performed at the Pennsylvania Hospital from 1850 to 1860. Two hundred and twenty-eight cases are here tabulated in a form which shows the age and the disease or injury of each patient, what was the part amputated, whether primary or secondary amputation was performed, with the result and length of time of treatment. The mortality of the whole number was 24·56 per cent., but of the 228 operations 146 were primary—that is, were performed within twenty-four hours after the occurrence of the accident,—and of these the mortality was only 18·49 per cent. The death-rate of amputations at the joints, as shown by this table, is considerably lower than the above, for out of twenty-five such operations two only terminated fatally, making a death-rate of 8 per cent. No mention is made of the methods employed for dressing the wounds, nor of the frequency of erysipelas, pyæmia, surgical fever, sloughing, or hæmorrhage, nor of the causes of death in the cases which terminated fatally.

Statistics showing the mortality of all capital amputations performed in the hospital for the twenty years from 1830 to 1850 had been previously published by Dr. Norris in the *American Journal of Medical Sciences*, and he now appends to the new table a summary of the whole thirty years' experience. This summary furnishes results very similar to those we have referred to; the death-rate for the whole period being 24·06 per cent.

The third statistical account occupies nearly one-third of the whole volume. It has reference to the mortality following the ligature of arteries, and is divided into four parts. The first part concerns the mortality following the operation of tying the subclavian artery; the second that following the ligature of the iliac arteries; the third that of the ligature of

the carotid arteries and arteria innominata; and the fourth the mortality following the ligature of the femoral artery.

These tables were all published for the first time between the years 1845 and 1849, and they comprised then all the fully reported cases of ligature of the subclavian, iliac, carotid, and femoral vessels. They are, therefore, the records of the experience of former generations, and must not be taken as representing the mortality and success attending the Hunterian operation as it has been practised in more recent times. Many causes, doubtless, contribute to the greater success of the ligature now than previous to the date of Norris's tables.

The earlier treatment by operation since the introduction of chloroform, the more accurate methods of operating, and more precise attention to anatomy (Hunter is known in two cases to have tied the femoral vein together with the artery), have all helped to render the Hunterian ligature less formidable than formerly it was.

It has been shown by Mr. Holmes, in his lectures on Aneurism at the College of Surgeons, that the Hunterian operation is much less dangerous than we have been taught to regard it, and that the mortality of ligature of the femoral artery is not now one-fourth, as shown by Norris's tables, but one-seventh. For present and future guidance, the recent table made by Mr. Holmes is more reliable than these tables by Norris, for it records the miscellaneous results of practice in a large number of cases, published and unpublished, which have been treated in our British hospitals, metropolitan and provincial.

Besides the statistical accounts to which we have referred, the volume before us contains a chapter on "the occurrence of non-union after fractures"; another on the "treatment of deformities following unsuccessfully treated fractures"; a third on "compound fractures"; and finally, the description of a case of varicose aneurism at the bend of the arm treated by ligature of the artery above and below the sac, with a few general remarks on aneurism the result of venesection in this situation.

## GENERAL CORRESPONDENCE.

### THE WEBB FUND.

LETTER FROM DR. W. CHOLMELEY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have to ask that you will kindly allow space for a final statement respecting the "Webb Fund." Owing to the "law's delay" and other slight hindrances, the trust-deed of the Fund has only just lately been signed, or the statement would have been sooner sent for publication. The Fund was closed on June 27, and the following contributions received since the last announcement are now acknowledged:—

| | £ | s. | d. |
|---|---|---|---|
| A thank-offering from G. A. K. ... ... ... | 5 | 5 | 0 |
| Walter Coulson, Esq. ... | 5 | 0 | 0 |
| Erasmus Wilson, Esq. ... | 10 | 10 | 0 |
| Sister Jane Wilkinson ... | 2 | 2 | 0 |
| R. R. Newman, Esq. ... | 10 | 10 | 0 |
| W. Mercer, Esq. ... ... | 6 | 0 | 0 |
| Dr. A. Henry ... ... | 2 | 2 | 0 |
| Dr. Hardinge ... ... | 3 | 3 | 0 |
| | 44 | 12 | 0 |
| Amount previously acknowledged ... ... | 2,029 | 9 | 6 |
| Total ... ... | £2,074 | 1 | 6 |

A meeting of the General Committee was held on July 1, at 11, New Burlington-street, Mr. Augustus Churchill, hon. treasurer, in the chair, when the hon. secretaries reported that the contributions received amounted to £2074 1s. 6d., and with interest there was a sum of about £2090 to be dealt with. The Committee then passed resolutions directing the investment of £1981 5s. to form a "Webb Trust Fund," electing trustees, and empowering the honorary treasurer and secretaries to have a trust-deed drawn up and executed, to pay all expenses incurred on account of the Fund and the trust-deed, and to hand over the surplus of the Fund to Mrs. Webb.

All this has now been done, the trust-deed having been drawn so as to carry out the intentions expressed at the first meeting of the Committee—viz., that any fund collected should be invested for the benefit of Dr. Webb's family, and to aid in the maintenance, education, and advancement of his children.

In closing their labours the Committee have gratefully to acknowledge the generous response which has been made by the profession to the appeal on behalf of the family of the late Dr. F. C. Webb, and also the valuable assistance which has been afforded by the medical journals, and the generous kindness of the solicitors and some others who have given much time and trouble gratuitously. The following is a statement of the receipts and expenditure:—

| | £ | s. | d. |
|---|---|---|---|
| Amount collected ... | 2,074 | 1 | 6 |
| Interest ... ... ... | 17 | 9 | 9 |
| | £2,091 | 11 | 3 |

| | £ | s. | d. |
|---|---|---|---|
| Invested ... ... ... | 1,981 | 5 | 0 |
| Dawson and Sons, advertising agents ... | 17 | 10 | 6 |
| Law stationer ... ... | 1 | 0 | 0 |
| Stationery, postage, &c. | 2 | 13 | 5 |
| Balance paid to Mrs. Webb ... ... ... | 89 | 2 | 4 |
| | £2,091 | 11 | 3 |

I am, &c., WM. CHOLMELEY, Hon. Secretary.

## OBITUARY.

### WILLIAM BATES, M.D., F.R.C.S.

DR. BATES was the son of the late William Bates, Esq. He was born at Clayton-le-Moors on July 18, 1819, and was apprenticed to Mr. Dunlop, of Bury. After serving his apprenticeship, his father allowed him, at his earnest request, to pursue his studies in Edinburgh, where in those days Professor Wilson, to whom the young student became passionately attached, could be seen taking his constitutional with shirt-collar thrown back and hair flowing in the wind, in the manner described by Professor Ferrier. Assiduous in his attendance at lectures, and laborious in the study of his profession, he was appointed demonstrator of anatomy to Professor Allan Thompson. He took his M.D. degree in 1841, and returned to Manchester, where very soon he attracted the attention of his professional brethren by severely criticising a paper "On Diabetes Mellitus" read at one of the meetings of the British Association in Manchester. His speech on the occasion drew upon him the notice of Mr. (afterwards Sir) James Bardsley, who became interested in his young colleague, and it was by his advice that Dr. Bates selected the locality of Ardwick Green for his residence, where he remained until his death. Dr. Bates throughout his whole practice had a strong and well-grounded belief in helping nature, and he preferred, whenever available, simple medicines, avoiding as unnecessary and unnatural, strong and violent courses. In all his work he was thoroughly conscientious, and did not spare himself night or day. Rich and poor were alike to him, and he would as readily leave home at midnight to walk four or five miles to attend a poor woman in labour, as to visit a higher class patient in his usual rounds. One of his most frequent sayings was, "Do your best, and satisfy your own conscience—leave the rest to Providence." Dr. Bates attained to a large general practice. In midwifery he was especially successful, and was often called in to advise in difficult cases. In 1841 he became a Member, and in 1859 a Fellow of the Royal College of Surgeons, England. Dr. Bates was twice married, and has left a widow and three children. In 1871 his health completely broke down. He suffered from gall-stones, and their consequent passage. At his funeral patients habited in mourning watched about the house to take a last look at the coffin, and as the hearse passed away there was scarcely a dry eye among the crowd.

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WHEN the left lung is retracted from the base of the heart from any cause the pulsation of the pulmonary artery between the second and third ribs, close to the sternum, may be distinctly felt, and even the click of the semi-lunar valves perceived, because sounds consist of vibrations sufficiently rapid to become appreciated by the ear, and can always be both felt and seen if the propagating medium be suitable. Hence friction, the result of the rubbing together of the two layers of the pericardium when roughened by lymph, is easily perceived by the hand, and even the vibration of valvular murmurs are readily enough appreciated. When rough, these vibrations have received the name of the purring thrill—*fremissement cataire*—because the sensation felt resembles that perceived on placing the hand on the body of a cat in the act of purring. Abnormal pulsations along the course of the thoracic aorta are usually confined to the ascending and transverse portions, and may be the result of simple displacement of the vessel, as occasionally happens in rickety chests, or they may be the result of aneurismal dilatations, and must be sought for in the tracheal fossa, as well as between the ribs along the course of the aorta, especially during expiration, when such pulsations, if faint, are most readily felt.—"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal*, *June*, 1874).

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 3 :—

Norman, Joseph Clement, Swinton, Yorkshire.
Murrell, William, York-street, St. James's-square.
Smith, Sydney Lloyd, 281, Brixton-road.

And on September 10 :—

Crétin, Eugene, St. Bartholomew's Hospital.
Fox, Richard Hingston, Stoke Newington.
Higgs, Augustus William, 320, Marylebone-road.
Vanes, Arthur Bayley, Carr's-lane, Birmingham.
Wright, John Sydney Albert, Horsham.

The following gentleman passed his primary professional examination on the 3rd inst. :—

Phelps, William, Guy's Hospital.

And on the 10th inst. :—

Howard, Edwin, St. George's Hospital.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DITTMAR, WILLIAM, F.R.S.E.—Professor of Chemistry at Anderson's University, Glasgow.

MCCREERY, JAMES OSTERLEY, M.R.C.S.—Medical Officer for the Missenden District of Amersham Union.

SAER, DAVID PROTHERO, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A.—Medical Officer of Health for Pembroke.

## BIRTHS.

ATTHILL.—On September 21, at Rose Cottage, St. Osyth, Essex, the wife of R. C. Atthill, L.R.C.P., of a daughter.

BURROUGHS.—On September 13, at Battersea-park, the residence of her father-in-law, the wife of Elton Burroughs, L.K.Q.C.P., M.R.C.S. Eng., L.S.A., of Prees, Salop, of a daughter.

GOODING.—On September 19, at Heath Lodge, Blackheath, S.E., the wife of Ralph Gooding, B.A., M.D., A.K.C., of a daughter.

REDFERN.—On September 16, at Templepatrick House, Donaghadee, the wife of Peter Redfern, M.D., Professor of Anatomy and Physiology in Queen's College, Belfast, of a daughter.

SIBLEY.—On September 19, at 12, New Burlington-street, the wife of Septimus Sibley, F.R.C.S., of a daughter.

SKENE.—On September 20, at Buckhurst-hill, Essex, the wife of William Skene, M.D., of a son.

STRANGE.—On September 23, at Belsize-avenue, N.W., the wife of W. Heath Strange, M.D., of a son.

THORNTON.—On September 17, at 83, Park-street, Grosvenor-square, London, the wife of J. Knowsley Thornton, M.B., of a son.

WILLSON.—On September 17, at Great Charlotte-street, the wife of Henry Willson, M.R.C.S., of a son.

## MARRIAGES.

ADAIR—GRAVES.—On September 15, at the parish church, Derryloran, Hugh Adair, Esq., of Glenavon, Cookstown, to Augusta Lee, eldest daughter of Henry Graves, M.B., Cookstown, co. Tyrone.

BERTON—MOULE.—On September 17, at St. Bartholomew's, Sydenham, Edwin D. Berton, M.B., C.M., second son of W. I. Berton, Esq., St. John, N.B., to Charlotte Adelaide, youngest daughter of W. T. Moule, Esq., of Panmure-road, Sydenham.

CARWARDINE—COBB.—On September 22, at the parish church, Frensham, the Rev. J. W. Carwardine, vicar of Cavenham, Suffolk, to Mary Elizabeth, eldest daughter of Frederic Cobb, M.D., of Frensham, Surrey.

CATES—ROLFE.—On September 17, at Bilsington, Kent, Henry Joseph, second son of the late John Cates, M.R.C.S., of Clapton, to Susanna, elder daughter of George Carter Rolfe, Esq., of Bilsington.

HERON—EVANS.—On September 17, at the British Consulate, Frankfort-on-the-Maine, and afterwards at St. Augustine's Church, Wiesbaden, George Allan Heron, M.D., eldest son of Gilbert Heron, Esq., of Glasgow, to Harriet Maria (Lallie), only surviving daughter of the late Charles Evans, Esq., and granddaughter of the late F. W. Cobb, Esq., of Margate.

HUGHES—JERVIS.—On September 15, at Penge, Robert Harry Hughes, M.A., M.B. Cantab., third son of the late Rev. Henry Hughes, of All Saints, Gordon-square, to Lætitia Cavanagh, eldest daughter of Lieut.-Col. William Jervis, of Chatkyll, Laurie-park, Sydenham.

HUNTER—WISDOM.—On September 16, at Monkstown Church, Alexander Allen, younger son of the late James Hunter, M.D., F.R.C.S.I., of Bryausford, co. Down, to Elizabeth Mary, third daughter of the late Thomas Howard Wisdom, Esq., of Dublin.

JACOB—LIPSCOMB.—On July 7, at St. John's Church, Napier, New Zealand, Edwin Le Grand, youngest son of the late Colonel William Jacob, Bombay Artillery, to Jessie Mary, eldest daughter of John K. Lipscomb, L.R.C.P., M.R.C.S. Eng., Alresford, Hants.

LLOYD—HOOPER.—On September 17, at St. Michael's, Wood Green, Charles Edward, younger son of Thomas Lloyd, M.D., of St. Leonard's-on-Sea, to Lucy Emma, eldest daughter of the late George Hooper, Esq., of Sion College-gardens, London.

PHILPOTS—JONES.—On September 17, at St. Mary's Church, Longfleet, John Richard Philpots, L.R.C.P., L.R.C.S., of Moorcroft, Parkstone, to Lily Mary Jones, of St. Mary's Hall, Parkstone, younger daughter of R. W. H. Jones, Esq., and granddaughter of the late Colonel Jones, of Nanah, co. Wexford.

SANDERS—MORRIS.—On September 17, at St. Matthew's, Nottingham, W. B. Sanders, Esq., of Nottingham, to Florence B. S. Morris, only child of Beverley R. Morris, M.D.

STOKES—PISANI.—On September 12, at the Catholic Church of St. Mary-the-Crowned, and at the Cathedral of the Holy Trinity, Gibraltar, Horatio Stokes, M.R.C.S. Eng., L.S.A., to Maria Pisani.

WAY—INMAN.—On September 16, at Adelaide, South Australia, Edward Willis Way, M.D., son of the Rev. James Way, Adelaide, to Marion, only daughter of the late Richard Inman, Esq., formerly of Wood Hall, Yorkshire, and granddaughter of the late Rev. R. Inman, Rector of Todwick, Yorkshire.

WILLIAMS—WILLIAMS.—On September 22, at St. Peter's Church, Wickham-road, Frederick Mann Williams, M.R.C.S., of Dunmow, Essex, to Edith Mary, only daughter of Henry Williams, Esq., Clifton-road, Tresillian-road, New-cross.

## DEATHS.

CLARKE, JANE LYDIA, widow of James Leatham Clarke, M.D., at 34, Beaufort-street, Chelsea, on September 17.

DAVIS, CATHARINE, of Eastbrooke, Burlescombe, widow of Benjamin Goodwin Davis, M.D., of Albion-place, Blackfriars, on September 12, aged 71.

JACOB, ARTHUR, M.D., T.C.D., M.D. Edin., F.R.C.S.I., late of Ely-place, Dublin, at Newbarns, Barrow-in-Furness, on September 21, in his 85th year.

MACDONALD, DONALD, M.D., Deputy Surgeon-General Bengal Medical Staff, at Shillong, Cossyah Hills, East Indies, on August 19, aged 52.

MACKENZIE, PATRICK M., M.D., member of the Legislative Council of the Island of Tobago, at 19, Upper Woburn-place, Tavistock-square, London, on September 19, aged 53.

MANN, CHRISTOPHER WHARTON, M.R.C.S. Eng., L.S.A., at Bridlington-quay, on September 21, aged 55.

MURRAY, JOHN, M.D., at Wickham, Hants, on September 16.

PRITCHARD, HENRY JOHNSON, M.R.C.S., youngest son of the late Thomas Pritchard, Esq., at the house of Joseph Blake, Esq., at Oudtshoorn, Cape of Good Hope, of a rheumatic attack, on July 29.

SEARLE, ELIZABETH DEIDAMIE, widow of the late Charles Searle, M.D., of the Madras Medical Service, at Dover, on September 18.

VEREKER-BINDON, HENRY, M.D., Staff Surgeon-Major P.M.O. Natal, at Pietermaritzburg, suddenly, of heart disease, on July 18, aged 53.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BEDFORD GENERAL INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Committee, on or before October 3.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered medical practitioners, and acquainted with the Welsh language. Applications, with testimonials, to the Secretary, on or before October 13.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—Resident Clinical Assistants. Applications, with testimonials, to the Secretary, on or before October 5.

KENT.—Analyst. Candidates must possess competent medical, chemical, and microscopical knowledge. Applications, with testimonials, to F. Russell, Esq., Clerk of the Peace for Kent, Sessions-house, Maidstone, on or before October 12.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary at the Infirmary, Myrtle-street, Liverpool.

METROPOLITAN FREE HOSPITAL, DEVONSHIRE-SQUARE, CITY.—Assistant House-Surgeon. Particulars may be obtained on application to the Secretary.

QUEEN'S HOSPITAL, BIRMINGHAM.—House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to the Secretary, on or before September 30.

RIPON DISPENSARY AND HOUSE OF RECOVERY.—Resident Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to the Hon. Secretaries, on or before September 30.

ROYAL ALBERT HOSPITAL, DEVONPORT.—Junior Surgeon. Candidates must be duly qualified, and registered. Applications, with testimonials, to the Secretary, on or before September 30.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—A duly qualified Medical Man. Applications, with testimonials, to the Secretary, at 41, John Dalton-street, Manchester, on or before October 2.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, on or before October 8.

UNIVERSITY COLLEGE, LONDON.—Professor of Comparative Anatomy and Zoology. Applications, with testimonials, to John Robson, Esq., B.A., Secretary to the Council, on or before October 31.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Bangor and Beaumaris Union.*—Mr. D. K. Jones has resigned the First Anglesey District ; area 11,082 ; population 4546 ; salary £85 per annum.

*Beaminster Union.*—Mr. Richard W. Broster has resigned the Marshwood District ; area 4877 ; population 949 ; salary £30 per annum. Also the Misterton District ; area 5031 ; population 1470 ; salary £40 per annum.

*Bridgnorth Union.*—The Third District is vacant; area 26,591; population 6353; salary £70 per annum. Also the Workhouse; salary £27 per annum.

*Leek Union.*—Mr. Richard Turnock has resigned the Endon District; area 10,360; population 2529; salary £20 per annum.

*Wycombe Union.*—The Little Missenden District is vacant; area 5174; population 1471; salary £24 per annum.

APPOINTMENTS.

*Amersham Union.*—James Osterley McCreery, L.R.C.S. Ire., L.A.H. Dub., to the Great Missendeu District.

*Nottingham Union.*—Joseph H. Webster, M.R.C.S. Eng., L.R.C.P. Edin., to the First District.

*Staines Union.*—Thomas C. Jones, M.R.C.S. Eng., to the Shepperton District.

*Wantage Union.*—Wm. J. Wood, M.R.C.S. Eng., L.S.A., and James Breach, M.R.C.S. Eng., L.S.A., to the Ilsley District.

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Mr. Richard T. Goodall, surgeon, of Clay-cross, has met with a serious accident by being thrown from his carriage. He fell on rough stones, and was fearfully cut on the face and head, and, by the last account, was lying in a precarious condition.

Mr. J. H. Marshall, of Wallingford, has, on retiring from practice, been presented with a set of solid silver side dishes, one hundred pounds, and an address on vellum, illuminated and bound in morocco.

The Corporation of Basingstoke have granted a lease for ninety-nine years at a nominal rent, of a site for an infirmary of two wards with four beds in each; and nearly £600 has been subscribed towards the building, etc.

The deaths in the eight principal towns of Scotland during the week ending the 19th inst. were 546. In the corresponding week, 1873, the number was 485. The chief increase arose in Glasgow.

One form which quarrelling assumes, is putting quicklime into the eyes, by which vision is sometimes completely destroyed. At other times the lids, especially the lower, and lower half of the corneæ, are only badly scorched. During the year two such cases occurred. This is not an unusual practice when thieves are caught.—*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

Treatment of Carbuncle and Furuncle by Mercurial Ointment.—Dr. Roth, in confirmation of the recommendation elaborately set forth in No. 37 of the *Deutsche Klinik* for 1872, relates two supplementary cases showing the efficacy of the practice. As early as possible after the disease has been made out, portions of the mercurial ointment, the size of a pea, are diligently rubbed into the spot every few hours. In a very short time improvement takes place, so that in two or three days a cure may be effected if treatment has been commenced early enough.—*Deutsche Klinik*, August 22.

Manipulation in Treatment of Stricture.—M. Bardinet, of Limoges, in the treatment of stricture, strongly recommends what he calls the "*massage*" of the urethra. When the bougie has become engaged within the stricture, and would in ordinary practice be so left immovable for a longer or shorter time, he deals with it otherwise. Seizing the penis gently with the left hand, he takes hold of the bougie in the stricture, and impresses upon it repeated to and fro movements, varying from ten to thirty in number, and gradually increasing in amplitude. The bougie, so tightly held at first, becomes free, and moves with astonishing facility. One a little larger is then introduced, and the same procedure repeated; and a third may follow this. In fact, in a short time a considerable amount of dilatation has been accomplished; and the treatment of the case is much abridged by this procedure.—*Union Méd.*, August 20.

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# NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*H. Courtenay Fox, Stoke Newington.*—The paper shall be published as soon as possible after we have seen the concluding portion.

*Cæteris Paribus.*—Next week.

*Officer of Health.*—The statement of our contemporary is *not* correct; the unfortunate gentleman died of a post-mortem wound, and not from the cause so sensationally stated.

*Carcinoma, Margate.*—Dr. Marsden is *not* a Fellow of the London College of Surgeons.

*J. M. A.*—Mr. Le Gros Clark, President of the Royal College of Surgeons, will deliver the Hunterian Oration in February next.

*H. R. O.*—"On the Nature and History of Marsh Poison," by Dr. W. Ferguson, published in the *Edinburgh Philosophical Transactions*, N. Y.—*Canada Medical Journal*, January, 1853.

*Dr. McM., Devonport.*—The gentleman was a legally qualified member of the profession. His son was a member of the Grenville administration, and it is stated that George III. derived great comfort from the reflection that the administration could not dispense with the services of Addington, then Lord Sidmouth, and commonly known by the nickname of "*the Doctor.*" He had so much influence with the King, and so large a personal following, as to be a powerful and dangerous opponent. On this account, says Mr. Rae, in his "History of the Opposition under George III.," he became the indispensable member of successive Cabinets. Canning wittily said, "The Doctor is like the measles; everybody has him once!" There is a capital portrait of Lord Grenville in the council-room of the College of Surgeons—one of the best painted by Phillips.

*Antiquary.*—The Rev. R. W. Browne, in his work, "A History of Classical Literature," says of medicine in the Homeric age:—"Surgery was the only branch practised of the science of medicine. Disease was inflicted by the vengeance of heaven, and no human skill was able to arrest the blow. Wounds which were the work of human weapons were able to be treated by man. The surgeon was held in the highest esteem. He knew, however, only the mere rudiments of anatomy, and the treatment which he prescribed was very simple. The wound was dressed with herbs, and the hæmorrhage was stopped by the rust of a brazen spear."

*Mad Dog.*—

"The wound it seemed both sore and sad
To every Christian eye;
And while they swore the dog was mad,
They swore the man would die.

"But soon a wonder came to light
That show'd the rogues they lied—
The man recovered from the bite,
The dog it was that died."—*Oliver Goldsmith.*

*Hector.*—The most ancient of the Scottish Universities is that of St. Andrews, which dates from 1411.

*Diogenes.*—See the collected works of Sir Humphry Davy, Bart., by Dr. John Davy, vol. vi., p. 217.

*Oliver Barnett, Esq., Calcutta.*—Letter, with enclosure, received.

*Cid.*—A society of physicians was first organised in Worcester, Massachusetts, in 1794, under the name of the Worcester Medical Society. This continued in operation for ten years, till 1804, when it was dissolved, and again organised with the same members, under the present title, with a charter from the Massachusetts Medical Society, which is authorised by law to establish district societies in different parts of the State, to be composed of the Fellows of the State Society residing within the limits of their respective districts.

*Palvin.*—Some important observations on the respective provinces of physics and of metaphysics in the theory of motion are to be found in a tract by Dr. Berkeley, published in London in 1721. The title is "De Motu: sive de Motus Principio et Natura, et de Causa Communicationis Motuum."

### The Slaughter-houses, etc., Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The Slaughter-houses, etc., Act, ordered by the House of Commons to be printed on June 15, passed its second reading on July 3, and through Committee of the House on the 7th of that month, although copies of it were not procurable until one day before it reached the last-mentioned stage. As an amendment of the law governing businesses declared by section 3 to be offensive, it might have been presumed that any advantage in priority of information would most properly have been given to the public who suffer from their noxious character, especially as represented by the medical officers of health of the metropolis; but, instead, the Government exhibited marked concern for the proscribed trades (under the Building Act of 1844), by conferring with their principal members as to the manner in which they preferred to be dealt with, the public being the while kept in ignorance of the proposals intended for submission to Parliamentary decision. The necessary outcome of so extraordinary a manœuvre is stamped upon the measure as it passed. Thanks to the vigilance of Dr. Dudfield, the Kensington Health Officer, and to the Association of Medical Officers of Health, whom he aroused to action instantly on getting a copy of the proposed statute, the measure of mischief perpetrated by it is somewhat restricted. The "offensive" businesses were intended, by the parties interested in them, to be removed from all direct interference on the part of the vestries, whose medical officers and sanitary inspectors previously possessed certain powers of inspection and control—the latter secured by objection before the Justices in Petty Session. The 3rd section, as originally framed, while giving a monopoly to existing businesses, which must be of enormous value to some of them—for instance, the tallow melters,—also left them at liberty so to extend the area of their premises as to make their future suppression by purchase an all but inaccessible luxury, not to be contemplated by any but extremely wealthy parishes. The suggested amendments framed by Dr. Dudfield, and adopted by the Society of Health Officers, drew attention to these features of the Bill; and notwithstanding the indelicate haste with which the measure was pressed through both Houses, the resolute efforts of Dr. Dudfield, the Vestry of Kensington, and Mr. William Banting checked such gratuitous provisions against the public weal. Some doubt remains as to the precise effect of the 3rd and 10th sections, taken together, in changing the procedure in regard to slaughter-houses. By Section 3 the local authority's sanction is made a necessary preliminary to the renewal of any licence. By Section 12 the local authority is defined to mean the Metropolitan Board of Works—a body destitute even of the shadow of a sanitary staff—for the metropolis outside the City, and the Commissioners of Sewers (who have both medical and sanitary officers) within the City. Section 3 requires notice to be given by the Metropolitan Board of Works to vestries of any application for the renewal of a licence, and gives the lay board the power of determining what measure of validity shall attach to the technical objections urged by the vestries on the report of their sanitary officers. Section 10 declares

the duty of justices to be the renewal of licences "as a matter of course," and then proceeds to say that "such board may, if they think fit, show cause against such licence being renewed, in like manner as such other parties"—that is, the vestries—"are empowered by that [93rd] section of the Metropolis Management Amendment Act, 1862, to show cause." Here, plainly, is a muddle, which may lead to interminable litigation, if, indeed, it do not result in the virtual transfer of authority to the Metropolitan Board of Works becoming a dead-letter. The 93rd section of the Act of 1862 is not repealed. On the other hand, in Section 14 of the new statute it is "provided that the repeal enacted in this Act shall not affect. . . . (3) The institution of any investigation or legal proceeding or any other remedy for ascertaining . . . . . any liability . . . . as aforesaid," which seems to save the vestries' rights and powers of inspection; while Section 17 further states that "Nothing in this Act contained shall affect the general law of nuisance, or make legal any act or default which would have been illegal if this Act had not passed, or, save as in this Act expressly provided, affect any Act of Parliament relating to any business specified in this Act." Assuredly the Government is not to be congratulated upon the first step taken in pursuance of Mr. Disraeli's promises to legislate for the public health; and as to the Act itself, it furnishes a forcible illustration of O'Connell's famous saying anent the driving of a coach-and-six through the statutes of the realm. I am, &c., J. T. D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—O Correio Medico de Lisboa—Gibraltar Chronicle—New York Druggist—Norwich Mercury—Public Health—Monthly Review of Dental Surgery—Atlantic Medical and Surgical Journal—The Kin-Se I-Setzu, No. 1—Missouri Clinical Record—The Central News—Weekly Circular of Coming Events—Cincinnati Lancet and Observer—Psychological and Medico-Legal Journal—Sunderland Times—Canada Medical and Surgical Journal—Universal Peace.

BOOKS AND PAMPHLETS RECEIVED—

Chapman on Medical Charity; its Abuses, and How to Remedy them—Directory of the Royal College of Science for Ireland—Clinical Atlas of Skin Diseases, by H. Stanley Gale, M.B., part 1—Lettres Médicales sur l'Angleterre, par le Dr. C. Delvaille—Ansell's Statistics of Families in the Upper and Professional Classes—Tyndall's Address delivered before the British Association at Belfast, 1874—Die Ergebnisse meiner Beobachtungen über die Cholera vom Jahre 1831-74 in ätiologischer und praktischer Beziehung, von Professor von Gietl—Strange's Report on the Sanitary Condition of Worcester—Nomenclature of Diseases, prepared for the use of the Medical Officers of the United States Marine Hospital Service, by the Supervising Surgeon, Dr. J. M. Woodworth—Etudes sur le Goître et le Crétinisme, par Mons. M. Parchappe—Documents mis en ordre et annotéis, par M. le Dr. L. Lunier—A Microscopical Examination of Certain Waters, submitted to Jabez Hogg, F.R.M.S., and a Chemical Analysis by Dugald Campbell, with introductory notes by S. C. Homersham, M.I.C.E.

COMMUNICATIONS have been received from—

Mr. Stanley Gale, M.B., Manchester; Mr. Ingpen, London; Mr. T. Holmsted, Hardarabad; Mr. C. St. Aubyn Hawken, Wandsworth; Mr. C. G. Wheelhouse, Leeds; Mr. Horatio Stokes, Gibraltar; The Registrar-General, Edinburgh; Mrs. Bates, Manchester; Mr. G. Sutton, London; Sir William Gull, Bart.; Messrs. Digby, Gandy, and Co., London; Dr. B. W. Richardson, Eastbourne; Mr. J. Chatto, London; Mr. G. C. Franklin, London; Mr. H. Morris, London; Mr. J. R. Godlee, London; Mr. J. B. Kidston, Glasgow.

## APPOINTMENTS FOR THE WEEK.

*September* 26. *Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

28. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

30. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

*October* 1. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

2. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, September* 19.

### BIRTHS.

Births of Boys, 1171; Girls, 1143; Total, 2314.
Average of 10 corresponding years 1864-73, 2061·8.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 662 | 580 | 1242 |
| Average of the ten years 1864-73 | 654·5 | 632·4 | 1286·9 |
| Average corrected to increased population | ... | ... | 1416 |
| Deaths of people aged 80 and upwards | ... | ... | 30 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | ... | 7 | 1 | 4 | 1 | 4 | 2 | 6 |
| North ... ... | 751729 | ... | 1 | 15 | ... | 2 | 2 | 3 | ... | 7 |
| Central ... | 334369 | ... | ... | 11 | 1 | 1 | ... | 2 | ... | 9 |
| East ... ... | 639111 | ... | 3 | 51 | 1 | 1 | 1 | 2 | 2 | 26 |
| South ... ... | 967692 | ... | 2 | 21 | ... | 9 | 1 | 6 | 4 | 22 |
| Total ... ... | 3254260 | ... | 6 | 105 | 3 | 17 | 5 | 17 | 8 | 70 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·911 in. |
| Mean temperature | 55·4° |
| Highest point of thermometer | 69·6° |
| Lowest point of thermometer | 43·4° |
| Mean dew-point temperature | 50·9° |
| General direction of wind | W.S.W. |
| Whole amount of rain in the week | 0·00 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 19, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Sept. 19. | Deaths Registered during the week ending Sept. 19. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2314 | 1242 | 69·6 | 43·4 | 55·4 | 13·00 | 0·00 | 0·00 |
| Portsmouth ... | 120436 | 26·8 | 84 | 40 | ... | ... | ... | ... | 0·00 | 0·00 |
| Norwich ... ... | 82257 | 11·0 | 52 | 35 | 66·0 | 38·0 | 52·3 | 11·28 | 0·01 | 0·03 |
| Bristol ... ... | 192889 | 43·3 | 132 | 73 | 64·6 | 44·8 | 53·5 | 11·95 | 0·68 | 1·73 |
| Wolverhampton ... | 70896 | 20·9 | 64 | 31 | 65·6 | 42·1 | 52·4 | 11·33 | 0·26 | 0·66 |
| Birmingham ... | 360892 | 43·0 | 266 | 182 | 66·7 | 40·2 | 53·2 | 11·78 | 0·75 | 1·90 |
| Leicester ... ... | 106202 | 33·2 | 87 | 40 | ... | ... | ... | ... | ... | ... |
| Nottingham ... | 90894 | 45·5 | 50 | 42 | 66·0 | 41·1 | 52·7 | 11·50 | 0·71 | 1·80 |
| Liverpool ... ... | 510640 | 98·0 | 396 | 349 | 64·0 | 43·6 | 54·1 | 12·28 | 0·10 | 0·25 |
| Manchester ... | 355339 | 82·8 | 285 | 174 | 69·0 | 41·2 | 52·3 | 11·28 | 0·33 | 0·84 |
| Salford ... ... | 133068 | 25·7 | 105 | 67 | 67·3 | 39·8 | 52·4 | 11·33 | 0·24 | 0·61 |
| Oldham ... ... | 86281 | 18·5 | 66 | 44 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 132 | 84 | 66·1 | 41·2 | 53·2 | 11·78 | 0·10 | 0·25 |
| Leeds ... ... | 278798 | 12·9 | 147 | 166 | 68·0 | 41·0 | 53·2 | 11·78 | 0·21 | 0·53 |
| Sheffield ... ... | 261029 | 13·3 | 221 | 127 | 67·0 | 42·0 | 53·0 | 11·67 | 0·11 | 0·28 |
| Hull ... ... ... | 130996 | 36·0 | 105 | 73 | 68·0 | 40·0 | 52·7 | 11·50 | 0·19 | 0·48 |
| Sunderland ... | 104378 | 31·6 | 58 | 31 | ... | ... | ... | ... | ... | ... |
| Newcastle-on-Tyne | 135437 | 25·2 | 86 | 66 | 64·0 | 42·0 | 51·7 | 10·94 | 0·09 | 0·23 |
| Edinburgh ... ... | 211691 | 47·8 | 152 | 85 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 422 | 252 | 65·0 | 38·1 | 51·1 | 10·61 | 0·61 | 1·55 |
| Dublin ... ... | 314666 | 31·3 | 183 | 180 | 67·4 | 36·3 | 55·3 | 12·94 | 0·02 | 0·05 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5407 | 3383 | 69·6 | 36·3 | 53·0 | 11·67 | 0·26 | 0·66 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·91 in. The highest was 30·21 in. on Monday morning, and the lowest 29·71 in. on Thursday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ABSTRACT OF THE

# INTRODUCTORY ADDRESS

DELIVERED AT GUY'S HOSPITAL, LONDON,

By Sir WILLIAM W. GULL, Bart., M.D., D.C.L., F.R.S.,
Consulting Physician to the Hospital.

THE Introductory Address was delivered at Guy's Hospital by Sir William W. Gull, Bart., M.D., D.C.L., F.R.S., Consulting-Physician to the Hospital.

After a few prefatory remarks, in which he urged his hearers to bear in mind that the claims of their manhood were supreme; that, if they became successful doctors in the world's esteem, and failed of becoming true men, their success would be but a cheat upon themselves and a stumbling-stone to others, Sir William proceeded to say—

"The study of medicine is liberal and unfettered. It ranges through human nature and into nature in general. It looks at man in every aspect, and has this great collateral advantage for its followers: that, in pursuing it, they are learning something of themselves. What this advantage may be to you as medical students is not to be calculated if it duly impress you with the fact that the laws of human health in its widest signification are part of the laws of moral and intellectual life; that indulgence, sloth, and vice are as contrary to our lower nature as they are to the higher laws within us. It was, therefore, well said by Sir Thomas Browne that 'there are two books from which we may gather our divinity; beside that written one of God, another by His servant Nature—that broad and universal manuscript which lies expansed to the eyes of all.' I assert, therefore, that the medical student has peculiar advantages, and that there is nothing in his studies to limit and contract his feelings or his sympathies; nothing to make him take a low and unworthy view of man or of his destiny; but, on the contrary, as a learned divine whose name is dear to this hospital used to remark, he who is most occupied with disease and death will have the truest idea of life and of all that contributes to it.

"Your studies require constant mental direction. As, in order to get a correct image from a mirror, it must be placed evenly before its object, so you must be careful your minds are not obliquely set to your work, but freely and openly directed to it. It is a common error with young students to think that it is only by some strong intellectual effort that good work can be done; whereas, in truth, it is more through patient and well-directed labour. You may, in fact, often advantageously recall the fable of the hare and the tortoise; for in the study of medicine, you will soon be convinced that the race is not to the swift. If the first lesson be patience—a patience which knows how to work and wait, undismayed by what looks to be insuperable, such a patience as even Newton required and practised when he tells us he learned to keep a subject before him, and to wait until by slow degrees light dawned upon it—the next lesson is docility, a readiness to learn at any source, not fastidiously or delicately, not where it may please us, but wherever the facts lie hid; remembering that to the pure all things are pure, and that, in the investigation of truth, there is no high nor low, no great nor small,—that, to use a common simile, like the rays of the sun, the rays of science enter alike every place. Who could have believed that the particles of a dewdrop and the masses of the planets are moulded and controlled by the same force; that the introduction into the human body of a small particle of matter from a cow's udder might be the means of saving thousands of human lives? We learn from such and innumerable similar instances that the highest truths lie hid in the simplest facts; that, unlike human proclamations, Nature's teachings are not by sound of trumpet, but often in the stillest voice, by indirect hints and obscure suggestions, but always with the uncqualled advantage that they are unequivocal, constant, and uniform. The difficulty, however, is in maintaining the docile spirit I speak of; in preventing ourselves from assuming a knowledge we have not; in not hastily coming to a conclusion without evidence; and not resting content in our ignorance with the fool's satisfaction that no good would come of more knowledge if we had it. The student will consider what has already been accomplished by the industry of man; what truths have been gathered on all sides; how much has been done to make the world more habitable; the victories over ignorance, disease, and pain; and he will be stimulated to enter upon his work with enthusiastic earnestness, knowing that, great as these results are, they are but the first fruits of a fuller harvest in which he may hope to take an active part.

"The student's training of to-day must at every step be directed by the light and checks of science, and his acquirements must go hand in hand with that high mental culture which can alone enable him to apply his knowledge successfully. If, in what has to be done mechanically, technical rules for action can be given, it is not so when living processes have to be dealt with; for then there has to be exercised the power of judging of the value of the known as against the unknown, and of deciding for or against many obscure probabilities. These are difficulties we cannot avoid, and these are the difficulties you have to fit yourselves to meet. The voice of pure science would be for waiting for certain light; but suffering humanity has stronger claims, and cannot wait. Let me, therefore, insist upon the careful mental discipline to which you must accustom yourselves if you are to use the knowledge you acquire with safety and advantage where failure is so easy.

"The medical profession stands almost alone in having to make the investigation of nature its prime duty. Others may labour in the same direction from a pure love of truth, or to relieve the tedium of life; but the medical student, having once selected his part, cannot avoid the calls of duty to urge him to his work. He has to study always with the feeling that he must as far as possible fit himself for the position of trust to which he aspires. He has to acquaint himself with the course of nature, to the practical end of instituting a course of action under given circumstances.

"I admit that the study of medicine is throughout full of inducements to its earnest pursuit; but there is besides the further consideration that we voluntarily undertake the task of rendering material service to society, and are, therefore, bound in honour to do that service well. Were man's physical condition immovably stable, were the equilibrium of his health constant from childhood to age, were there no accidents to cross his path, the proper study of mankind might still be man, but it would have no relation to the study of medicine. Whatever knowledge there would be of man so conditioned, it would have no object in practice. It might excite our wonder and admiration, but not our sympathy; for there would be no suffering, and no need of interference.

"In the high object of medicine lies its greatest danger. The stimulus and the natural desire to act are mostly out of proportion to our knowledge and means for action.

"The motive to do something is but too apt to tempt to pretence of knowledge which necessarily perverts the science and practice of medicine. How can I, therefore, so happily impress your minds with the dangers of charlatanism as still to leave your energies fresh to actively pursue the truth; so urge upon you to neglect no means, to despise no service which may be necessary to promote the successful operation of your knowledge, and yet guard you against ignorant and trifling interference, of which the least that can be said is that, if not injurious to the patient, it spoils the practitioner.

"The study of medicine, I have said, it is difficult to limit. The ancients called the human body the microcosm, and the outer world the macrocosm; in fact, one world within another, or, as the poet puts it, 'man is one world, and hath another to attend him.' There are infinite and intimate relations between the two, more and more intimate, perhaps, than we in our philosophy have yet dreamt of, though in our day we have gone far. You will, in the more discursive teachings of your subjects, probably be told that a continuous line of relations connects the macrocosm and the microcosm, and you will at least learn that, if not continuous, the points of contact are too intimate and essential to admit of any distinct line of separation. The whole art of medicine is to know and to act upon these relations, so as to favour what is favourable and exclude their contrary. The air we breathe, the water we drink, the food we eat, the mechanical accidents to which we are subject and the varied operations on the senses, show how close these conditions are, and how immediately dependent in every way life is upon them—more dependent even than is commonly perceived, for it would seem that not only is our bodily structure formed and maintained by the surrounding conditions, but even our mental state is thereby developed and its training advanced.

"The dogma that man's power and knowledge are limited by his observation of the course of nature cannot be too plainly

impressed upon the mind of the student of medicine. It might well be written in letters of gold in every medical theatre. It is true we may and must believe and hope far beyond the boundaries thus prescribed; but belief and hope are but pioneers and substitutes for knowledge, and where observation can lead the way there must be no halting in our steps to follow it. The first aphorism of the *Novum Organon* sounds clearly the note in harmony with which your medical studies must be conducted, though I repeat that the limits of scientific knowledge are not the limits of hope and belief, even in the driest minds. They supplement and aid the powers of observation everywhere. The purest physicist works his way into the unknown by hope, and entertains a belief much more comprehensive than his knowledge.

"The expression 'order of nature' indicates a rule which, in one aspect, is the most hard and inflexible. Amongst all the ever-changing phenomena of nature, in all her forms and moods, it asserts that there is an unvarying oneness beneath. The harmonies may be infinitely varied, but the vibrating chord is unchangeable. Realise, if you can, what a paralysing influence on all scientific inquiry the ancient belief must have had which attributed the operations of nature to the caprice, not of one divinity only, but of many. There still remain vestiges of this in most of our minds, and the more distinct in proportion to our weakness and ignorance. It still opposes a hindrance to knowledge, and resists the conclusions of experience. In fact, few really believe in a fixed course of nature; none, indeed, but they who have undergone much mental discipline. I say that, in one aspect, the course of nature is unvaried. The materials—the material atoms as we now think of them, the physical elements as they are called—are believed to have constant qualities. What these qualities are we only know very imperfectly, but, as far as our acquaintance with them goes, they are not subject to any variation. The variations in phenomena are the variations in their combinations or the variations of their relations; but in the substratum itself there is no variation, nor any in the resultant where the conditions are the same. That is the law of nature; but obviously its course admits of infinite variations. What are the changes that can be rung on twelve bells used to tax our boyish calculations; but what are the resultants when twelve elements combine in infinitely changing proportions, who can express? Yet still this is but a part of the problem of the play of the physical atoms, which, far from being dead things, are centres of active powers expressing themselves in various ways, of which we know at present only some, under the forms of motion, heat, electricity, and magnetism. That the course of nature may be varied, we have assumed by our meeting here to-day. The whole object of the science of medicine is based on this assumption. It is the whole purpose of our knowledge to find out and obviate what is inimical to our systems, and to discover and promote what is favourable to us. It is difficult to form even an imperfect image of the course of nature in a living thing. What we call our health, and which looks so fixed and stable, is more changeable than the stability of the rainbow. Its maintenance depends upon the moving equilibrium of more forces than the mind of man can realise. The inorganic elements make a constant war upon us, and yet maintain us by the strife.

"Everywhere this struggle for existence has to be maintained; but in man, for the first time, intellect comes to take part in the struggle. It is the curious work of physiology to trace from the first shrinking of the lowest organisms through all the gradations of instinct that power which becomes intelligence in man, with the prerogative of knowing the course of nature, and of changing it for his good. When we hear the complaints of the weak and ignorant against the hardness of their lot, when we are moved in sympathy with the sufferings of the sick, let such complaints and our sympathy remind us that in the providence of God the intellect of man comes in as a corrective agent. It is both impious and foolish to stand with our backs to the storm bewailing our miserable plight, or to remain patient under it through the deadening influence of superstition, like brute creatures on a waste moorland. Even at present, feebly instructed as we are, so much has been done as to give us good assurance that the time will come that the triumph of the intellect will fully 'justify the ways of God to man,' not only by obviating or controlling human suffering, but by so combating the faults of ignorance and enlarging knowledge, that humanity may recognise its high destiny, and walk in the light of it. Bacon justly says 'vere rem reputanti philosophia naturalis post verbum Dei certissima superstitionis medicina est eademque probatissimum fidei alimentum.' We have disarmed the lightning of its destructive force, and tamed it to carry our thoughts across the world, affording an instance of what was once regarded as evil turned to good in relation to that order which man's life requires. Again, let me instance the pestilence which is called typhus fever, whose ravages were so mysterious that the inspired writers speak of it as one of God's sore judgments walking in darkness, and humbly consider what power the intelligence of man has gained over it. We have tracked it to its lair, have discovered its causes and their preventives. Dreadful as have been its visitations, we have learned so much of it as to see that its teachings are friendly. I am not speaking the language of metaphor. The pestilence which formerly swept over the world like a scorching wind, withering and destroying the human race in uncounted numbers, had no mysterious or supernatural origin, but was the natural product of want and squalor—a protest against the violence, selfishness, and ignorance of man. The friendly relations of commerce and the common uses of cleanliness have as entirely disarmed the pestilence of its terror as the lightning-conductor has diverted the bolt from its threatened victim. Happily, these are not solitary illustrations of man's power to modify the course of nature for his own good. Civilised life is but a varied expression of such illustrations. There still remains an unlimited arena for future work, and for that crusade against the powers of evil which is inaugurated in this and in other hospitals year after year.

"As respects nature's unswerving order under like conditions, you have not only to realise it for yourselves, but at times you will have to impress it on your patients and on the public.

"I said just now that few persons had an uniform belief in this stern course of things. All would perhaps assert that they had, but we see too plainly both the individual and the public health suffer in many ways through the operation of the contrary feeling. The laws of health are broken on all sides with the lurking confidence that there is no attendant Nemesis to vindicate their observance; whilst at the same time the worst things are submitted to because they are regarded as natural, and therefore inevitable. Nature, to the student of medicine, is not a name of terror or superstition. With all its stupendous forces, it still conveys to his mind the idea of rightness and beneficence. As he traces the progress of living things from the dawn of time to the present, he cannot but recognise an evolution to an ever higher perfection. Fixed as is the course of nature, it does not seem to him fixed by blind necessity, but ordered so that the intellect of man may learn it and dispose it for his good. As yet we live but in the infancy of science, and who can say how much our present state is limited by our ignorance? That cannot be known until science shall reach her own limit, and has to confess that nature will reveal no more.

"To come to that which will most have to occupy your time here—the course of nature in disease. You will soon learn that diseases, like other natural facts, require no peculiar mode of study. No doubt but that the personal interest we have in them does much hinder their due investigation, and surround them with a mysteriousness which is not essentially belonging to them. Man is naturally unwilling to feel himself but a part, though the highest part as yet, of the course of nature, however deeply he may be convinced that all is ruled by the wisest Providence. He desires to feel himself an exception from the common laws of nature. There is essentially the principle of fear in all living things. Its physical expression is that shrinking of a piece of living jelly when it is touched, of which I have spoken, or the closing of the eye to a particle of dust, and all the like phenomena. The fear of change is essential to the safety and growth of a living thing, surrounded as it is by causes which are calculated to invade and destroy it. It is the groundwork of that struggle for existence through which all living things have advanced, and is in another form the chief spur to the human intellect. We cannot therefore be surprised to find this feeling, in one way or another, too intrusive, thrusting itself between the facts and their due observation, and surrounding them with a sort of personal and exceptional mystery. It was the great merit of Hippocrates to have striven to break down this barrier of mysteriousness which prevented medical progress. But though so many ages have passed, all traces of it are not gone. The sense of mystery is so indigenous, and so constantly attaches itself to the unknown, that, although I do not for a moment suppose any well-

educated medical man could think that disease ever comes but through discoverable natural courses, we assume almost as much when we are satisfied not to have traced them to their beginnings. It is curious also to notice how our language still retains the terms expressive of the mysterious origin and nature of disease. The epileptic is still said to have 'his seizure,' though we have long known that the cause of the convulsion is but an irregular oscillation of nerve-particles transmitted to a given point. The apoplectic state is still commonly called 'a stroke,' though anatomy has shown it to be traceable to anything but mysterious changes in the blood-vessels. Diseases are but parts of a course of natural history —some as simple as the growth of a lichen on the surface of a rock; others dependent upon the development of some lower creature in us—'fellow-lodgers,' as they have been called; some no more than irregular oscillations of nerve-tissue, as I have just said; others, the so-called inflammations, are but deeper lesions of the nutritive functions; and so forth, in every variety, according to the course of health in us, and the course of nature surrounding us, but always, as you will perceive, as parts of a natural history. Medicine has much advanced since she has freed herself from the old conception of diseases being independent entities admitting of classification and of being labelled into orders and sub-orders. We are, however, not yet quite free of this, nor can we, in the nature of the case, altogether avoid definitions, though the aim of a good medical education is to teach you to use words and definitions but as a medium for arranging knowledge, not for restricting it within artificial limits, and crystallising it as it were into uniformity.

"Plain as is the course of study before you; simple as are the means for its proper pursuit in a due training of the senses and the intellect; unembarrassed as you may feel yourselves with any supposed necessary prejudices or weight of authorities; encouraged with the assurance that the prerogative of genius, where it exists, is only for more exact and continuous labour; and certain that success in the prosecution of medicine, as of other natural sciences, must really be dependent upon the knowledge acquired, I should mislead you did you suppose that your task was an easy one.

"I have much spoken of intellectual culture as if it were the main purpose of your medical studies, and though it is certain they cannot be rightly pursued on any lower ground, still I should remind you that there are other calls for your energies. Whatever duty you owe yourselves, there is further that also which arises, as I have before said, from the claims to be hereafter made on your knowledge. The public have a right to expect that you shall lose no opportunity of preparing yourselves for that trust which must be confided to you in practice. If, therefore, there be any among you to whom the love of knowledge, the pleasure of its attainment, and the incalculable personal advantages it bestows upon its possessors, are not motives sufficiently strong, or operate but feebly, let them remember that they are at least bound by the obligation of service and reward.

"Most of you, and probably all of you, look for success in future practice. There should be a double success; your practice should be as successful to your patients as to yourselves. This is what may be fairly looked for. I do not mean that your patients can measure successful practice by recovery from disease, or should expect you to do impossibilities, but I mean that the sick man has a fair right to expect and to receive all the aid that is possible under the circumstances, if you, on your part, look for substantial reward. Whilst I speak thus, I feel I owe it to the members of my profession to assert that mercenary considerations have had but little influence with them. No set of men are more unsparing of themselves, or more openhanded in their services for public or private good. I could, did it not seem invidious, say they are unrivalled in this respect. You will, therefore, gentlemen, for the sake of your profession as well as for yourselves, maintain the position I now assert. Accumulate all the high and honest motives you can for your intellectual advancement. They will severally be wanted on different occasions, whether they be such as arise from duty to your friends who send you here, and the arguments of love and honour they include; whether from what is due to yourselves as having intellects to instruct, and knowledge to acquire; whether from the high reputation of this school, which as students of Guy's you are bound to maintain; from the demands of your profession, which justly expects that you will fit yourselves to ornament its ranks and advance its influence, or from society, which will reward and honour you if you do it service. Supplement these reasons by the highest, —your duty to the Highest, who alone can satisfy the wants of your nature, and with whom a faithful study of your profession cannot but make you better acquainted.

"In the strongest of your doubts and mistrust of things you must faithfully look beyond the clouds that then oppress you, and fix your minds upon the certain truth that, however halting and tortuous, the course of nature in man tends to physical, moral, and intellectual perfection. No disappointments, no failures, how often soever repeated, should make us turn our backs on the final purposes of our life. It has been thought that the study of medicine is apt to divert the mind from these higher considerations. I believe such an opinion to be as unfounded as that our familiarity with suffering makes us indifferent to it. Such opinions are held only by those who are either ignorant of the large extent of our studies, or who do not sufficiently bear in mind that its range is from the 'atoms that make the textures, to the hopes that make the man.' As students of man, we can no more ignore the immeasurable relations of the one, than we can deny the ponderable relations of the other, for man's hopes as rightly tend to the highest and the best, as his material atoms to the centre of gravitation.

"There is a necessary caution arising out of an expression I have made use of. Medicine, I assert, is unfettered in its lines of study, and, as man is its subject, this implies that whatever concerns his bodily or mental existence is open to our research freely and without prejudice. This is a position medical science, as one of the natural sciences, must occupy. But we may not jump to the conclusion that scientific progress is so far advanced that a complete and satisfactory theory of man can at present be given. It is said that the medical profession is especially open to such hasty conclusions; that, being so largely occupied as we are with the mere fleeting phenomena of existence, and seeing more of the weakness than of the strength of man, we are naturally led to ignore his higher nature, and to regard him but as a very exquisite piece of material mechanism and no more. No doubt, there is this danger—Whatever part of a subject most presses upon the attention is likely to occupy it too much and to exclude that larger part which must be taken into consideration for a proper conception of the whole. But this may be corrected by reflection. The medical student, when he has learned all that is known of oxygen, hydrogen, nitrogen, and carbon, and the other chief organic elements which play so great a part in our existence, will ask himself how much still remains to be known about them. When he enjoys the fragrance of a rose, he will, perhaps, reflect on all the conditions of it, and he will find he comes to a chasm he cannot leap. At present, we know only a part. The mind is not advanced at yet so far as to know either all its weakness or all its strength.

"The teachings of science are, doubtless, full of hope and belief. It is only when we think its work is so far done that we can see the end of it, that disappointment comes in, and with it a conflict between our instincts and the supposed reality. Hope and belief are the necessary supplements of imperfect knowledge. Without them we should deprive ourselves of the best motives and surest grounds of action.

"I have thus far tried to indicate, though very imperfectly, the character and scope of your work and the temper of the intellect in which it must be conducted; and now I must add a few words on the method of it. The order is, more or less, fixed by the several examining bodies to which you have hereafter to present yourselves, but understand that the method must be your own.

"First of all, resolutely determine that you will never be satisfied with second-hand knowledge from lectures or books where it is within your power to get impressions directly from the objects themselves. The necessity of this is the ground of your having to come to a medical school. Anatomy, chemistry, practical physiology, morbid anatomy, and clinical medicine are not studies you can acquire any proper knowledge of through books or descriptive lectures. The things must be seen, handled, analysed, and dissected by yourselves. They require of you a personal and intimate acquaintance to be of any practical good. Words and descriptions, good as they are, after you have acquainted yourselves with the things themselves, are always ready to come between you and the objects, and to dim your impressions of them. Many a man, most of us indeed, go through the world without ever coming into scientific contact with the things in it. We look through the eyes of others. Our impressions and thoughts are mostly but shadows of shadows. No wonder, therefore, they are

so inconstant and confused. Why, I might ask in all simplicity, have you eyes, if they are not to be trained for the purposes of your profession? why touch, if not to be used in detecting injury or disease? The senses and the mind are active powers which call for due objective exercise. Medical study is a mere pretence without it. You do not come here as passive receptacles to be filled through books and lectures with a complement of so-called knowledge which shall fit you to answer questions. Happily, the times for this are changed. Examinations themselves are passing from the verbal to the objective stage, and nothing can supply the student with so practical a stimulus in the right direction as this change. I will not say anything to lessen the value of lectures. In some points lectures are indispensable. Many of them are demonstrations of facts, where you are shown at the same time the method of inquiry and the results of it. In a lecture you have also the teaching by personal influence which is invaluable. Example is contagious, and descends from teacher to pupil. This accounts for those fertile spots in literature and science which spring up from time to time. This it is which gives a character to a school.

"As to books, for the most part, read the most recent on the subjects you have to study. Knowledge in every department is growing fast. A book on physiology or practice of medicine soon becomes obsolete, or ought to be so. Hospital reports, journals, and year-books are, for a profession like medicine, invaluable. Their flourishing existence is a sign of activity and progress; they store up our gains and afford the soundest materials in the literature of our profession; a source from which the best treatises on a subject are produced.

"Though most of you must hereafter be chiefly occupied in practice, all will have opportunities of adding something to the stock of professional knowledge; whilst some, we may hope, may make such larger contributions as shall add fresh honour to our school. It was in our medical theatre that Jenner read his first papers on vaccination. It was in our wards that Bright pursued his investigations, which have made his name so famous. It was in this theatre that Addison instructed many generations of Guy's students, and through his clinical and pathological researches, left an immortal name. Nor must I forget Sir Astley Cooper, who laboured so much in the foundation of our school. May the example of such men, whose memories are so dear to us Guy's men, beget in you a lasting enthusiasm for your profession.

"As the method of your studies is objective it requires no arguments to prove what advantages may be gained by the use of those instruments which aid the sense: the microscope, the thermometer, and the sphygmograph. You will naturally avail yourselves of these and all such other means as may further exact observation, but, at the same time, do not fail to educate the unaided senses. Their educational susceptibility it would be difficult to limit. See all you can by the unassisted eye or the common lens, and educate the touch to its finest development. Where exact means are available and applicable, you will obviously have recourse to them. In the study of your profession they are indispensable, but in practice we are often prevented from their use, and have to rely upon mere technical skill.

"You will not study your profession in a narrow or niggard spirit. Though the centre of all your work lies in man, you must gather up your knowledge from a very wide radius if you are to understand the problem he presents. At first view, there is an apparent independence and unity in a living thing which sharply separates it from its surroundings; and of all living things, this appears most in man. Our idea of an individual commonly limits itself to the anatomical outline; but physiology teaches that no proper outline can be drawn. What meaning would muscles have without gravitation, which itself is dependent upon the size of the earth we inhabit? Draw a close line of separation between man and the surrounding air, and where is his life? What would be the scope of our knowledge without light? What constitutes the body itself but a constant relation to freshly added materials? The human body does indeed especially express the idea of unity, and its oneness is such that we may say of it as Newton said of the physical universe, 'Centrum ubique, circumferentia nusquam'; but physiological studies soon show the human unit in far wider relations than those which are simply corporeal. Man is both more and less individual than he seems at first glance; more in the direction of that close relation and dependence of our organs one on another which forbids a partitioning them into separate sections for the special purposes of medical practice, and less in the direction of our surroundings and antecedents. This conviction it was which led Hunter into the field of comparative anatomy, with what honour to our profession you all know; and the same conviction must actuate you to obtain a fair knowledge of biological science, which, if it do not confer power on you as medical practitioners, will at least throw such a light on your work as will enable you to do it better.

"You and your friends will perhaps say that the time here for acquiring a comprehensive, together with an exact acquaintance with your subjects, is too limited; that you do not come to the hospitals to be chemists and biologists, but practitioners. This I admit to the full; but at the same time, from the nature of the subjects themselves, and in the presence of that wider individuality of which I have spoken, and which often connects the farthest fact with the nearest detail, it must be maintained that to know one thing well you must know its relations to many others. This truth in respect of man is the chiefest. Most of our errors respecting him, whether in regard to his bodily or his mental organisation, have arisen from experience gathered in too narrow a circle, and therefore fallacious. As to time, the shorter it is the more important that the method of study should be intelligently arranged. Acquaintance with known facts, if undertaken practically and under good direction, though slow at the outset, is in the end a saving of time, because the results on the mind are more lasting and fruitful. If medical education had for its end only mechanical operations, I grant it would not require more than a technical acquaintance with details; but neither medicine nor surgery is a mechanical art, though the uninitiated public regard them so. So they regard the body as a piece of very good carpentry and joinery, and think any one of its organs, like the wheel or piston of an engine, can be mended by medicine duly prescribed. Such ignorance is easily satisfied. It is not for its satisfaction that medical studies are required at all. It very rarely occurs in the practice of medicine and surgery that merely mechanical performance can fully meet the conditions of a case. When it can, the man who does the mere mechanical operation most often will be likely to do it the best. Nor should this excellence be depreciated; but when the treatment of diseases ceases to be mechanical, we require for its proper direction a very different mental cultivation. It is the admission of this which is advancing the study of medicine, and from which we may with full assurance augur a greater future.

With all the extension of knowledge, the student of modern medicine has a far more advantageous position than his predecessors: the facts you have to learn are better known; the relations of your subjects have become more fully illustrated by collateral knowledge; the limit of our ignorance is more defined; the general public are better instructed, and, therefore, more able to appreciate sound knowledge; authority and so-called experience, the 'wig and cane,' are less imposing; and the well-informed, though young student, begins his career of practice under favourable auspices.

"If I am oppressed with the feeling of having but too imperfectly indicated the spirit in which you should enter upon your medical studies, I satisfy myself with the reflection that you will be more effectually aided and directed by your teachers in the several departments. I know, from long and intimate acquaintance with most of them, that they will not fail to impress upon you the importance of applying yourselves to your work in a scientific spirit. They will insist upon the fact, that you can fit yourselves for the practice of your profession only by sound intellectual training, as well as by an accurate knowledge of details; they will caution you against substituting words for things; they will tell you that the most important part of your work is of a humble kind, consisting of an acquaintance with the proximate conditions of life, and not with the unfathomed, and perhaps unfathomable, metaphysics of it. Their object will be so to instruct you that, whilst you are not deficient in any part of that knowledge which is open to you as medical practitioners, you will still be aware of your ignorance, or what should restrain you from futile attempts, and from becoming believers in some fanciful theory or other springing out of too limited observation. The chemist will descant on the nature of atoms, and exhibit to you many of their properties; but he will have to point out, as I have already said, how much we have to assume respecting them, and that they are still very mysterious essences. The anatomist's task will be the most satis-

factory, because our knowledge on that subject is the most complete, and, as our colleague, Mr. Hilton, has abundantly proved, admits of some *rationale*. The physiologist has a harder and drier duty in pointing out the development of the organs and the combination of their functions into an organic whole, since if he lapse—as who can at all times help it?—into theories of the 'Why,' he will be apt to weaken the directness of observation upon which you must build, if you build securely. The task is severe, but he has shown that his strength is equal to it. Then comes the pathologist on the nature and course of disease, proving it to be mostly but a part of physiology. After these, therapeutics, happily much less encumbered than formerly with a farrago of nostrums, since pathology has taught us that the processes of disease have often a conservative tendency, and that frequently our duty is to do no more than prevent violent interference. When and how we can do more it is the great object of therapeutics to point out.

"Of the study of the practice of medicine and surgery, everything around you here speaks at all times and invites your attention. The several departments of the hospital afford the rarest opportunities for acquaintance with accidents and disease in all forms; and if a knowledge of the practical parts of your profession cannot be gained here, it may be certainly said it cannot be gained elsewhere.

"I look back with pleasure to the time when I had no world but the wards of this hospital, and often regret I am now so separated from them. All the success I have had springs from Guy's, and here are my early and best associations. I cannot, therefore, but feel as one of yourselves. I could wish it were again my lot to work with you, but the time is passed, and younger and stronger hands will direct you, whilst it only remains for me to cordially wish you success."

## INTRODUCTORY LECTURE

DELIVERED AT UNIVERSITY COLLEGE

By FREDERICK T. ROBERTS, M.D., B.Sc. Lond., etc.,
Assistant-Physician to University College Hospital, etc.

The Introductory Address was delivered by Dr. F. T. Roberts, who said:—

"An occasion like this gives the speaker an opportunity which in one aspect is advantageous, in another very dangerous. It enables him to ventilate his views and opinions on current subjects of interest, to give utterance to grievances, as well as to say things to a collective body of men which he cannot exactly tell a single individual to his face, much as he would sometimes like to. The dangers are lest he should go too far, or, even when he keeps strictly within bounds, lest he should offend those who do not agree with him, or to whom some of his remarks might seem to apply, and thus bring more or less obloquy upon himself. My strong feeling is, that when anyone is placed in the position which I now occupy, he has not only the right and the privilege, but is bound to speak out boldly and without fear, if he conscientiously believes that there is anything going on, in which those whom he is addressing are interested, which is seriously wrong in principle or practice; nor should he shrink from saying what experience has taught him is urgently needed. Gentlemen, I believe there never was, and never will be, a time when plain speaking is more imperatively demanded than at the present day; and acting upon this belief, it is possible that I may give utterance to remarks not altogether pleasing to some of you, or to others who are not present. While, however, endeavouring to keep clear of everything approaching to undue licence in speech, I cannot and dare not indulge in vague compliments, and represent everything as smooth and straight, when there is much which is very rough and very crooked, in which our profession and you as intending members of it have a vital interest; but I can conscientiously affirm that, whatever I may say, I am actuated solely by a deep and earnest desire for the elevation of our calling to its proper position, and for your advancement and well-being as students and future practitioners. I call to mind that the position and progress of our profession depend entirely upon, and are bound up in the history of those who year after year enter our places of instruction; their principles and motives, their conduct and actions, will either elevate or degrade it, will either extend or mar its usefulness. I realise that each one of you, individually, must have some influence in this direction, and some of you may have a very great influence. There are many ways in which you may go wrong, and it is my duty, as one of those to whom you commit your training, to try to set you right, so far as it is in my power to do so.

"In pondering over what I should speak about to-day, it struck me that it would be of most service to you in many points of view were I to discuss certain questions bearing upon the position of our profession—its internal organisation and external relations; and upon medical education and the examinations through which you hope, I presume, to be admitted as its recognised members. Perhaps it does not matter very much whether you are up in the latest theories about tubercle, or inflammation, or fever; or whether you are acquainted with the most recent researches as to the functions of every spot in the brain; but it makes all the difference in the world whether you are turned out at the end of your career as students at all fit and competent to practise your profession, to recognise and treat a case of consumption, or typhoid fever, or apoplexy, or a broken arm; and whether you have correct notions as to the proper position of your vocation, its relation to great questions with which it is concerned, and your responsibilities and duties in connexion therewith.

"The grandeur and nobility and other lofty attributes of the medical profession is a theme about which many a pent-up flood of eloquence has been let off, and it is not improbable that some of you, having heard or read these glowing descriptions, have formed a conception of the existing state of things in connexion with it which facts will not warrant. Possibly you are under the impression that outsiders recognise, on every hand, the greatness of our calling, and are prepared to pay corresponding homage; while you suppose that everyone who follows it is actuated by the highest motives, and acts accordingly, and you look forward with eager anticipation to the time when you shall join the noble band. Now, my conviction is, that it does a great deal of mischief to allow those who intend entering the profession to go away with a mere sentimental notion of this kind, and that it is far better to let them understand what is the real state of the case. This will not only prevent a very unpleasant disappointment at finding things not exactly what fancy pictured—a disappointment which might lead to very disastrous results,—but it will also enable them to perceive what is wrong, and thus they may know in what directions they may assist in reforming, and perhaps be roused to a sense of their responsibility in this respect.

"Essentially and in the abstract, of course the 'doctor's' calling is everything that has ever been, or can be, said in its praise. Its principles, its aims, and its possibilities, are beyond what can be expressed in words, and its achievements, too, are far above what it is often credited with; but at the same time, when you come to realise it, as represented in daily life, marred as it is by human failings, you may come to think that there is nothing in it to raise it much, if at all, above the common level. You will probably find in connexion with the profession and in your own experience that you will have to contend with many difficulties, disappointments, and annoyances; that the daily routine of a doctor's life is dull, trying, and worrying. What is still worse, the conviction may be forced upon you that our calling is not quite so honourable as you were led to believe; you may see much which dims its lustre, which is decidedly degrading, and which jars against one's better feelings; while you cannot fail to notice that our external relations are extremely unsatisfactory in many points of view.

"Certainly, things are considerably better than they were formerly, and there are hopeful signs of still greater improvement, but there is a vast deal which needs to be done yet in the way of reform. The general social status of the medical profession is not nearly what it might be, and even its most illustrious members can only rise to a comparatively inferior position of eminence, and must be content with moderate honours. The state of the various public services is anything but satisfactory. In connexion with the Army and Navy Medical Departments, there are real grievances of a most serious character, of which we hear constantly, but there is no sign of any intention to redress them. During the last year this country has been engaged in a war, which has been emphatically called a 'Doctor's War'; and, while honours were showered down upon others, and very deservedly too, the doctors were pretty well left out in the cold. The Poor-law Service also is in many parts in a decidedly degraded condition, and is scarcely anywhere fairly recognised.

Politically we are simply nowhere; we are mere outsiders, and are outstripped in the race by almost every class of individuals in this land, headed by the publican and the so-called 'working-man.' Our interests as a profession are not considered deserving of much notice, nor is it thought worth while to protect us efficiently against quacks and such-like, or to attend to any grievances we may have; and, what is still worse, even on the very questions, such as those bearing on sanitary matters, with which our profession is most concerned, and about which we are supposed to know something more than other people, the opinions of those of our body who, from their official position, are expected to advise on these subjects, have been quietly ignored, or sometimes insolently repudiated. We do not want to meddle in political or other questions with which we have no concern, and the less we have to do with such the better. But putting out of sight our own interests, it seems to me that we ought to have a much greater political influence than we at present possess. It would do no harm to the constitution of the Houses of Parliament,—yes! the House of Lords as well as the House of Commons,—if they had a considerable addition of the medical element infused into their midst. There are great questions now before the country, and there are many more which ought to receive immediate attention, and which must sooner or later come to the front,—questions which affect the health and well-being of vast communities,—and to these the members of our profession, collectively and individually, must devote their most earnest attention, if they would fulfil their functions properly. We are bound to take our part in dealing with such questions as bear upon the gigantic evils resulting from intoxicating drinks; the prevention of contagious diseases; the employment of labour; the adulteration of food; the habitations and surrounding conditions of the working classes; and even the disposal of the dead. We must endeavour intelligently and without prejudice to cope with these important subjects; to fight strenuously against everything that is wrong; and to protect this nation from the evils which civilisation necessarily brings with it. In short, we are called upon to declare our opinions, and to make them felt too, in connexion with all subjects which bear upon the prevention of disease, the maintenance of sound health and bodily vigour, and the physical development of the people of this country; and we must do this in the face of all opposition, however powerful it may be. We are certain to meet with opposition, for there are parents who are more concerned about the well-being of their dogs than that of their children; there are employers of labour who would sap the life out of thousands, and crowd our hospitals with emaciated consumptives, in order that they might live in luxury; there are ratepayers and vestries who, to save a few shillings a year, would allow pestilence to run rife; there are well-meaning people enough, who, for a mere sentiment, would permit no measures to be taken to check the extension and ravages of the most fearful diseases; and there are powerful combinations of individuals who would ruin a world to serve their own interests. But if we are to succeed in overcoming these bars to progress and to exert our proper influence, our opinions must be acknowledged, we must have greater political weight than we have at present, and those who are our authoritative representatives must be treated with respect and consideration.

"Granting that the representation just given of the present position of our profession is a correct one,—and I do not think it can be charged with being at all exaggerated,—it becomes exceedingly important for us to try to determine why it is not more satisfactory, and to see whether something at all events cannot be done towards improving it. One reason doubtless is, that as a profession we are not so numerous or so powerful as to make it worth the while of people generally, or of various public organisations, to cultivate our goodwill, and it does not affect them much whether they please us or not. For instance, we cannot probably influence half a dozen votes in the House of Commons, and Governments therefore make no attempt to conciliate us. Even our great Association only numbers some five or six thousand members, and at the present day this does not represent an overwhelming organisation. Then, I have no hesitation in affirming that the public generally do not treat us fairly and kindly, or with a due regard to the just demands of our calling, or to the difficulties and trials which those who practise it have to encounter. We are abused by all sorts of people, and numerous jokes are cracked at our expense, reflecting upon our want of skill, which a good many individuals do not look upon as jokes at all, but as representing actual facts. They will take every advantage of us, and get as much as they can out of us, and then turn round and tell us our services are not worth having, in order that they may excuse themselves from paying anything for them, or that they may bring down the remuneration to the lowest possible figure. Unquestionably, numbers and numbers of people take advantage of the gratuitous advice to be obtained at our hospitals who can well afford to pay; while on the other hand, strange to relate, they will readily give large sums to some pretentious quack. It is really no exaggeration to say that very many people, and educated and apparently sensible people, too, prefer the opinion of some ignorant and abominable creature of this class, be he bone-setter, professed curer of consumption or cancer, or what not, to that of a qualified medical practitioner, however intelligent and well informed he may be. During late years there has been undoubtedly a great increase in charitable contributions towards our hospitals and dispensaries, though there are many and many yet who ought to give largely, but who either give nothing at all, or appease their consciences by dropping their 'mite,' as it certainly is, into the collecting-bag or box on Hospital Sunday; while there are some who are extremely generous, giving great sums anonymously and so on, but who sadly want to be directed as to what hospitals they had best contribute to. But what I wish to observe is, that with all this increase in contributions, there is no corresponding development of charity and consideration towards the medical staffs of these institutions. I do not mean that they are not paid—a matter, however, which is not altogether unworthy of notice—but that they are not by any means always properly treated in other respects. A very wide impression seems to be that the members of these staffs ought to consider themselves as blessed above all other men, and instead of needing encouragement and sympathy, that they are only subjects for congratulation, on account of the enviable position they have gained, which involves extremely delightful, easy, and pleasant work, which in turn kindles the overwhelming esteem and affection of grateful patients, and in the end, if they only keep calmly on, must lead to affluence and eminence. What is worse, not a few people believe that most of them are only influenced by selfish motives, doing just as much as they need to further their own interests, and no more, their patients being often sadly neglected or improperly treated in the meantime. I am only repeating what I have gathered from casual conversation again and again. And these ideas are encouraged by some gentlemen in our own profession, to whom I would here venture to give a friendly hint. I allude to some of those who are taking an active interest in out-patient reform. I quite appreciate their objects, and feel with them that many people do abuse the various charities, though I may add that, so far as our hospital is concerned, we have every reason to believe that this does not occur to any appreciable extent. But the way to remedy this state of things is certainly not by trying to injure the hospitals and their medical staffs by hunting up and sending accounts to the medical papers of cases of supposed neglect or improper diagnosis or maltreatment. We have quite enough to do to stand attacks from the outside, and at least our own brethren ought to support us, remembering the difficulties under which we labour. During the last year or two cases have occurred also where even the committees of certain hospitals in this metropolis, consisting of gentlemen who ought to know better, have acted in a most unbecoming manner towards their staffs, causing the majority of them to resign in a body. And, gentlemen, if there is one more hopeful sign than another in connexion with our profession, it is that these hospitals cannot get the vacancies on their staffs filled up; candidates either will not or dare not come forward; and this shows either that there is a higher tone of professional feeling and etiquette, or that the profession as a body is becoming a real power, and is beginning to exert a wholesome check upon any who might not be inclined to observe the necessary rules of etiquette. The fact is that every physician or surgeon to a public charitable institution deserves very generous consideration at the present day. It is a position which is very difficult and trying to fill; the work is exceedingly hard, fatiguing, and exhausting; patients are anything but easy to please, and instead of being so very thankful as some suppose, real gratitude is decidedly the exception among them rather than the rule; while, after all the toiling, it is but a comparative few who achieve anything very notable in the end; success generally only comes late in life, if at all; there are many who struggle on and on to the last, battling perhaps man-

fully against heavy odds, but never succeeding, while some retire dispirited from the unequal strife, or are forced to give it up by failing health, or are brought to a premature grave. And here our thoughts naturally turn to the sad events of the past year. Again and again have we been startled out of our quiet routine, by hearing of one comrade after another who, in the full vigour and energy of manhood, has been struck down in the midst of his labours, crushed by their accumulated weight, or smitten by the pestilence he was endeavouring to check. Some of them had toiled manfully for many years, and were now about reaping the rewards of their perseverance. The names of Murray, Phillips, Dickson, Fuller, Allen, Webb, Harris, Anstie, and many others, not forgetting students, such as Dobson and Schlesinger, call up mournful recollections, and I feel sure you will all join with me in paying a just tribute of respect, admiration, and esteem to the memory of those who thus nobly fell, victims to their devotion to the cause of humanity. And if these events do not excite proper sentiments towards those who work in connexion with our public charities, I know not what will. They speak in tones which ought to reach far and wide, and which appeal to the tenderest feelings of every human heart.

"The remarks just made apply in their measure to most medical men who hold public appointments, not forgetting the hard-worked 'parish doctor,' and indeed to the members of the profession generally. Would that all classes of society could realise what the actual conditions of the great majority of medical practitioners are! They would then certainly treat us with far more consideration than they do at present, and one great step would be taken in bringing our profession into satisfactory relations to those with whom it is concerned.

"But now, gentlemen, I feel that I am about to tread on difficult ground, and must be careful what I say. It is dangerous to speak disparagingly of one's own profession, but yet, if we really desire to remove existing obstacles to much-needed reforms, both internal and external, we are bound honestly to come face to face with the fact, that for many of them we are responsible either collectively or individually, and until these are removed it will be impossible to make satisfactory progress.

"One of the greatest obstacles to progress in the past has certainly been a want of union and organisation among our members, and not uncommonly, the existence of positive opposition. Everybody was working on his own account, and for his own ends, and the consequence was that the interests of the profession as a body were utterly neglected; it had no influence on great questions, nor, indeed, did it seem to be at all concerned about them. For many years solitary individuals have been here and there fighting against abuses and for reforms, often under much discouragement, but it is only comparatively recently that any sign has been given that we are at all working in concert. And let it be clearly understood, that if we are to make way, we must all really act together. As I have already remarked, we do not at the best constitute a very powerful body, and we need the concentration of all our available strength in order to advance. We have now our councils and our associations, and their representatives tell us that, through their agency, we are becoming a power in the State, and I hope and believe that such is the case; but if we are to attain to our true position, they must also combine, and so must all the sections of our medical press, which has now great influence. The same principle must in its degree be carried into the smaller spheres into which we, as practitioners, are severally thrown. We are bound to work together if the profession is to advance. Well, gentlemen, what is the present condition of things in this respect? Perhaps it would be as well not to enter into particulars, but you know as well as I do that you can hardly go into a city, or town, or village where petty jealousies do not prevent anything like unanimity of feeling and action among medical practitioners. You have only to take up a medical paper almost any week, and find some quarrel going on. Mr. A attends a patient, and somehow or other Mr. B gets to see him, and declares that Mr. A is killing him, and that if he is not placed immediately under his (Mr. B's) care he cannot live many days. There are some who are always trying to undermine the position of their fellow-practitioners, and are ready to leap into a vacant post under any circumstances and at any price. Hence it is that ignorant poor-law guardians can even yet snub and bully their doctors with impunity, and that a club-doctor has to be very civil to its members, and especially to the secretary. I heard the other day of a practitioner in a certain large town, who is in the habit of saying, 'There are 250 medical men in this town, and 249 of them are confounded fools.' You may guess which he considered the exception. Now, gentlemen, all this, although amusing, is also very serious. We can hardly expect the public to believe in us, or to treat us with respect, if we act in this manner towards each other. Of course, if a man is notoriously incompetent or unprofessional we are justified in separating from him, and, indeed, we are bound to do so; but for the great majority of our disagreements there is no adequate foundation. Then, again, the totally contrary opinions which are being so frequently expressed about cases by our leading physicians and surgeons, especially in courts of law, are undoubtedly doing our profession a great deal of harm, and even give room for a penny daily paper to allude in one of its articles to the 'proverbial disagreement of doctors.' No doubt everyone has a right to arrive at his own opinion on any case, and to express it too; but surely something might be done to put a stop to the contradiction which appears to the public so very absurd, but which we know is not quite so ridiculous as it is represented to be.

"These illustrations will show that we are not by any means so banded together as we ought to be, and I affirm that if we want to get on as a profession, we must be cordially and firmly united in all our associations, from the most extensive to the most limited.

"We have to go deeper than this, however, and must acknowledge that the very large majority of us are individually to blame, in some way or the other, for the backward state of our profession in many respects. It is delightful and encouraging to contemplate some men who are living now, as well as to think of others who are gone, and to realise how thoroughly and conscientiously they have done their duty in every relationship that we can judge of in which they have been concerned; but these are the exceptions, and not the rule. Most of us fall short, and not a few very far short, of what we ought to be. In the first place, we have not taken the personal interest which we ought to have done in important matters with which we have had to deal, especially those bearing on sanitary medicine; we have not tried to teach the people with whom we were brought into contact, even as to the most common measures for the maintenance of health and the prevention of disease, far less to take any part in the public discussion of these subjects, and indeed, not unfrequently, we have utterly neglected them ourselves. Some people, too, when they become doctors, really seem to take leave of their common sense, and I think we are all liable sometimes to neglect this very important faculty when we investigate or treat disease. We are not uncommonly careless, and give rash opinions for which we feel we have no adequate foundation; we attempt to do things which a little consideration would tell us are impossible; while there are some, I fear, who deliberately pretend and promise to effect cures by certain methods of their own, when they know perfectly well, or ought to know, that their promise can never be fulfilled. In these and other ways our profession is brought frequently into disrepute. And it must be admitted, too, that the standard of knowledge among practitioners generally has not been remarkably high in times past. Men went into practice with a very limited stock of information, and took no further trouble to increase it, except that some would try and learn from their own experience.

"The individual failings which I have just alluded to may, and I believe will, to a great extent be done away with, as the result of the extension of knowledge and the improvements in education and in the examinations. But there are greater evils than these, which, in this age of struggling and competition, not only is it impossible to eradicate, but there is extreme danger of their extending. Men must live, or they want to get on in the world, to acquire wealth and be somebody; and as long as they attain their object they do not care much how they manage it. We see this daily around us in every calling, and our profession is by no means exempt. Speaking with all charity, there are many things going on in our midst which are very degrading and disheartening, and that not only among the lower ranks of our profession, but among some who occupy high and prominent positions. It is not necessary to enter into details as to what these are, for they are patent and familiar to everybody. What we have to consider is in wha ways the evils can be remedied and put down. The unite opinions of those who, in our profession, are actuated by loft motives—and of these let us be thankful there are very many —might do a great deal if more frequently and emphatically

declared, while the combined power of its members as a body might accomplish still more. This combined power can crush any man if it is only put forth, as has happened in our own time; and if one of our number goes utterly wrong, and does notoriously unprofessional acts, not only are we justified in uniting to bring him down, but it is our duty to do so, for we cannot allow our profession to be dragged in the mire to serve any individual's personal ends. There are, however, many lesser degrees of the evil which cannot be touched in this way, and for these the only remedy that I know of is to try to instil into the minds of those who intend to join our ranks the very highest possible conception of the nature, the aims, and the demands of the profession which they desire to enter. I do not want to talk mere cant, nor do I wish to represent ourselves as much better than other people; but I do affirm that the principles by which we ought to be actuated must be higher than those which belong to almost every other vocation. Our first consideration dare not be for our own self-interest, no matter at what cost or by what means this is contributed to. Mingled with this self-seeking, there must be a deep sense of the noble attributes of our profession, as well as a willingness and determination to put up with self-sacrifice if need be, and the probability is that in some way or other each one of us will be pretty well tested. If there are any present who have been engaged in practice, they will appreciate what I have said, and they will understand me when I further add, that even with the highest motives and intentions it is not always easy to keep quite straight at the present day. But, if a man starts at the outset with low views and motives, for him there is no hope; and you can generally gather from the manner in which anyone enters upon his career what his principles are. If he looks upon his profession in a mere commercial point of view, he will use it as a trade, and often a very low trade too. If he values his advice, medicine included, at eighteenpence or a shilling, or even less, he will sell it at that price, and must not be surprised if people take him at his own valuation. If he considers the social position of his profession of no importance, he will probably do his best, or rather his worst, to lower it in the estimation of others. If, in a more respectable manner, he uses it merely for his own interests, he will be in constant danger of doing things which are not correct or straightforward, and thus of bringing discredit upon it. While, on the other hand, a man who has a high notion of his calling will, by his actions, make it attractive and beautiful, and will compel even scoffers to acknowledge that there really is something in it which raises it above the ordinary level. Therefore, I say to each one of you, gentlemen, get as lofty an idea of the medical profession as your minds are capable of; see in it all that is honourable, and noble, and attractive; learn to love it, and to realise that it not only affords you opportunities of doing good in your day and generation, but that it contains within itself boundless stores of pleasure and satisfaction, which anyone who seeks for them may find. But all this must be no mere superficial sentiment, such as a breath of temptation or trial, which you will be sure to experience, will sweep away; but a deep, real, and earnest feeling, which shall reveal itself in the conduct and actions of your daily life, no matter whether you stand out prominently among the foremost ranks, or toil unknown in some remote village. Have this, and it will constrain you to devote yourselves with energy and enthusiasm to your work as students, while it will at the same time develope the qualities which are most essential for a medical man; it will help you in the future to go more cheerfully through the oft-times dreary monotony of professional life, and to bear up against its difficulties and disappointments; it will urge you to do your part towards advancing your profession as a science and an art; while it will kindle within you a determination to do all in your power to stamp out everything that now dims its honour and dignity, to keep these attributes constantly before your view, making everything else subsidiary to them, and never to be guilty of a dishonourable or discreditable act, even under the most trying temptations.

"I pass on now to consider certain matters bearing upon medical education and examinations. Various attempts are at present being made to improve medical teaching, as well as the examinations by which the comptency of those who desire to practise is tested; and these ought to receive the most cordial support from all who feel a true interest in the advancement of our profession.

"The character and quality of the examinations have unquestionably exercised a marked and positive influence upon education, and therefore they must, to a great extent, be considered together. It is quite evident that students consider that teaching ought to aim chiefly, if not entirely, at fitting them to prepare for their examinations. It is all very well for us to tell you that you must look to the future, and that examinations are nothing, and so on, but it requires no very deep observation to perceive that a very large majority of you consider examinations pretty nearly everything, and that you will be very well satisfied if the tuition is such as to enable you to pass them successfully. This is exceedingly natural, and there is no great harm in it, for the whole matter will right itself, provided the examinations are made satisfactory, which means that they are fairly and impartially conducted by competent men; and that they are sufficiently varied, extensive, and searching to afford good evidence that the candidate possesses an adequate knowledge of all the subjects which form part of the medical curriculum, as well as the requisite practical skill, and that he is therefore at least capable of undertaking the ordinary duties of his profession, in so far as he can be thus tested. There are some, indeed, who think that there should be no compulsory curriculum for the student at all, but that he should be allowed to obtain the necessary information in his own way, and that all we should be concerned about is to keep the examinations up to a proper standard. I certainly do not agree with this opinion, for I feel sure that a large proportion of students would go utterly in the wrong way to work if left to their own devices. Besides, we must bear in mind that they need to be put through training and discipline of another kind, and it does them good to come into contact with teachers and fellow-students, and to take part in competitive efforts, which must greatly assist in fitting them for their future career.

"With regard to the examinations, I can only say that until quite within a recent period, while a few of them aimed at a tolerably high standard, the majority were so absurdly inadequate, that they were little better than farces as tests of a man's real knowledge and skill; and even where an examination was a fair one of its kind, it was often of little value for this reason: that it only sought to ascertain what the candidate knew about a very few subjects, leaving some, which were by far the most important, almost or altogether untouched. With a diploma thus obtained, which perhaps only proved that its possessor had some acquaintance with anatomy and surgery, and possibly just a tinge of physiology, he might go out as a presumedly qualified practitioner, and exercise his supposed skill in the practice of medicine, midwifery, or anything else he pleased. I do not mean in saying this to disparage in the least those gentlemen who entered the profession in days gone by. Most of them obtained two diplomas or more, and passed such examinations as were then in vogue, in the majority of subjects; but the fact remains, that it was possible for a man to be legally qualified to act as a general medical practitioner, when he had given no evidence of his fitness for the position. I feel sure that there were quite as good practitioners in the past generation as there are now; but they became so, not because of their examinations, but in spite of them. They rose above these, and not content with obtaining the scant information which they required, strove to make themselves really competent for their responsible duties, by acquainting themselves thoroughly with everything that, in their day, was known. On that account they are deserving of all the more credit, and are an example to not a few at the present day, whose object seems to be, to find out what is the least possible minimum stock of knowledge with which they can get along, and who, instead of manfully trying to pass the ordinary recognised examinations, which certainly are not overwhelmingly difficult, seek to smuggle themselves into the profession through the most contemptible so-called examination which they can possibly discover.

"Regarding the present aspect of things, notwithstanding all improvements, it must be acknowledged that we are far, yes, very far, from arriving at anything like perfection in teaching or examinations, and that there is plenty of room for further reform. As to examinations, most of them as now conducted are anything but complete and efficient tests of a man's real fitness to enter upon the responsible duties of a medical practitioner.

"Gentlemen, it would be a most excellent and desirable thing for all concerned, but especially for you, if everything connected with examinations and teaching were now settled once for all—at least for a long time to come. It seems to me that there is very little difficulty about the matter. The

principles upon which they should be conducted are clear enough, and we know tolerably well what is needed. The only thing required now is that the various authoritative bodies, and especially those which grant degrees and diplomas, should come to a mutual understanding and agreement in an unselfish spirit. But so long as one council fights against another, and this or that corporation sticks up for its own dignity and emoluments, instead of having the general welfare of the profession at heart, and being ready, therefore, to make some sacrifice, any final arrangement seems almost hopeless. It is really high time that all this trifling should be put a stop to, and that some higher authority should step in, and compel all concerned to submit, whether they will or not. We urgently want a satisfactory curriculum of study and satisfactory examinations for every part of this kingdom, and it is quite ridiculous to allow the numerous places granting supposed qualifications to practise to go on just as they please.

"I think it might be of some service to you were I now to try to give you some notion of the more recent changes which have been made affecting medical education and examinations, as well as of those which are still in progress or which seem probable, so that you may in some measure realise what is at present, or what may be, required of you. I have gathered what I am about to say from the perusal of the published regulations of the various examining boards, as well as of those laid down in the 'Conjoint Scheme,' from the recommendations adopted at the late meeting of the General Medical Council, and from my own observation of, and to some extent participation in, the actual working of existing educational institutions. My remarks may be briefly summed up under the following headings:—

"1. *Alterations affecting Time.*—The period required for the medical curriculum, which was formerly much too short, seems now to be definitely settled at four years. A very high authority in educational matters has lately expressed his opinion that this period is still inadequate. No doubt, if it were practicable, it would be an excellent thing to extend it, and if any of you are so circumstanced as to be able to devote a longer time to your preparation for the profession, do so by all means, provided you really are studying, and not frittering your time away; but, taking everything into consideration, I do not think it is desirable to make a longer period compulsory; and I will say further that if every student were to make really good use of his four years from first to last, he would have a very fair foundation upon which to build, and would have acquired by no means a poor stock of knowledge with which to start upon his active professional career. But remember that the time is not a day too long, and you cannot afford to waste even the smallest portion of it. There has also been an endeavour to arrange the time better. This is seen in the regulations as to the periods required to be devoted to the study of different subjects, and as to when they should be attended; and also in the division of the examinations into two or more parts, so that the student may get rid of some of the mere scientific and elementary subjects after a certain time, and then devote himself to those which are of more practical importance. By the regulations of the conjoint scheme, a student would be allowed to pass the written portions of botany and chemistry at his preliminary examination, and to finish altogether with these subjects, as well as with materia medica and pharmacy, within twelve months after registration; and he is even encouraged to do so, for if he succeeded in passing he would be exempted from attendance on lectures in these subjects, which to many students is a delightful let-off.

"2. *Alterations affecting Subjects.*—One of these has been indicated in the preceding remarks—viz., that the more elementary and fundamental subjects are delegated to the earlier period of education, and if the student chooses to follow the regulations, he ought to get rid of all anxiety as to examinations in them at the latest by the end of his second year. The Medical Council have carried a resolution that 'the area of examination in certain subjects should be limited and defined,' and they specify botany, zoology, chemistry, and materia medica. No doubt this will fall in admirably with your views, but it remains to be seen how far it will be adopted by the examining bodies. A very useful and important recent regulation is this, that the more practical portions of certain subjects are now examined upon at the final examination, whereas they were formerly finished with at the primary. I allude more particularly to anatomy. The fact is, that a good many students used to know about as much anatomy at the end of their career as they did at the beginning, because they forgot all they had ever learnt between the first and second examinations. Now, however, such portions of it as really ought to be remembered, in their application to surgery and medicine, are again examined upon at the final. So, too, with regard to therapeutics. Formerly, students were examined on this subject when they really understood nothing about diseases or their remedies; but the tendency now is—and a very proper one, too—to ascertain what they know respecting the action of medicines at the close of their career, when they are going forth to experiment upon patients. Certain most important subjects are much better attended to now, particularly in the examinations, than they were formerly, and physiology deserves special mention. Really in most examinations, although an acquaintance with this most important subject was nominally required, it was practically ignored altogether; and students, knowing this pretty well, paid corresponding attention to it: that is, the great majority of them neglected it almost entirely, and knew little or nothing of the structure and functions of the various parts of the human body. Then some subjects, which most unaccountably have been entirely neglected in past times, are at last coming into prominence, both in tuition and examinations. This applies particularly to hygiene and sanitary medicine, and also to various special departments of medicine and surgery, though a good many of these might with advantage receive still more attention than they do at present. I see that the Medical Council state that 'excellence in one or more subjects should not be allowed to compensate for failure in others; and that, if a candidate be rejected for failure in any one subject, he should be re-examined in all.' In the main, this is certainly quite right, but, at the same time, it seems to me that there should be a distinction as to the respective importance of different subjects, and a certain allowance should be made with regard to those which are of least consequence practically.

"3. *Alterations in the Methods of Examination and Instruction.*—Taking the examinations first, we must allow that most important and admirable improvements have been carried out in the modes of conducting them during late years. It is not so long ago that an hour's chat on a certain eventful evening, which was pleasant or otherwise according to circumstances, settled the matter as to whether a candidate was a 'fit and proper' person to give suffering humanity the benefit of his knowledge and skill. Gradually it has come to be recognised that this was not quite satisfactory, and in theory at least, and in some places in practice too, it is considered essential that an examination should consist of four parts—viz., written, oral, practical, and clinical. In this way a candidate is tested on every side, and if such an examination were properly conducted, it really does seem as if no one could gain an entrance into the profession unless he knew his work fairly and were tolerably well qualified. Now, gentlemen, you had better realise what is meant by the 'practical' and 'clinical' portions of examinations, though of course you will bear in mind that the thoroughness and severity with which they are carried out varies considerably in different places. First, you will be required to recognise objects when you see them, and to know something about them, such as bones, structures exposed in dissection, so-called anatomical 'pickles,' microscopic specimens, pathological preparations, drugs, plants, etc. Secondly, you may have to do certain things, more or less of a scientific character, but most of them also of practical use, such as dissect parts, put up microscopic preparations, and perform ordinary chemical analyses, especially those which have a direct bearing upon certain departments of our profession, as the examination of secretions, testing for poisons, etc. Thirdly, you will have to show that you know how to examine patients; that you can use the different instruments employed in the investigation of disease; and that you are really able to find out what is the matter with a person, and have some idea as to the necessary treatment. In some of the higher examinations you will be required to give written reports of cases, with your own commentaries thereon; and in others you are permitted to exhibit your powers of original observation and thought, by writing a thesis on any subject you please. Lastly, you will have to give evidence that you can use the different kinds of apparatus employed in treatment; that you can do ordinary things, which you will probably have to do frequently in practice, such as vaccinate, put up a broken limb, or perform the minor operations; and in some examinations you will be called upon to perform the more important operations.

"Now let us see how the methods of teaching have been

affected by these alterations in examinations. In the first place the student is required to attend far fewer lectures than formerly. We are about coming out of a period which might justly be called that of 'excessive lecturing.' This was the recognised mode of instruction, and in several subjects it was necessary to be signed for two or more courses, so that the student had to listen to a repetition of what he had already heard, and many a one had before him actual notes of what the lecturer was saying. For some examinations this regulation still holds good, but for my own part I think it is high time that it should be done away with. As for students, I am afraid they did not, as a rule, in times past appreciate lectures as much as they ought to have done, and this was mainly due to the fact that they were overdone with them. Many either evaded them altogether if they could, or were present only at so many as would secure the required signature, not, however, with the intention of listening, for they beguiled the (to them) weary hour with a novel or in carving their name for future generations to admire, or improved their artistic skill by drawing caricatures of the lecturer or their fellow-students, or amused themselves in various other ways suited to their taste, sometimes refreshing their exhausted frames with an hour's calm sleep. The tendency as regards lectures is now decidedly to go in the opposite direction, and I do not think that students can complain that they are, as a rule, called upon to attend too many courses. Along with this change, I think it will be acknowledged that, taken as a whole, lectures are more useful and interesting than they used to be. The proper object of a course of lectures is to present to the students as simple, clear, intelligible, and concise, but at the same time as complete an exposition as is practicable, of the subject under consideration, and lecturers seem to be realising this more than formerly; while the competition in this, as in everything else, is helping to develope the necessary qualifications. Still further, there has been a remarkable development of what is termed the 'tutorial' system of education—*i.e.*, teaching by means of regular demonstrations and informal conversations, as well as by frequent examinations, both oral and written. This is certainly a great advance, and it is even yet capable of further development. With students this mode of teaching is decidedly popular, and they plainly recognise that it helps them materially. Besides, it brings teachers and students more into contact with each other; the latter can ask questions if they are in any difficulty; while at the same time the unnecessarily wide gulf which used to exist between teachers and students is considerably narrowed, and they come into closer sympathy with each other. Of course it has been the custom for a long time, here and in other places, for professors and lecturers to conduct examinations at stated intervals in their respective subjects. But somehow students as a rule certainly did not seem to care very much about these. They either thought them too formal or looked upon them with dread and aversion, probably because they did not like to make a public exhibition of their utter want of familiarity with the subjects which had been discussed upon. I observe that the Medical Council recognise the value of examinations by recommending that 'evidence should be required that every student has attended the examinations held by his teachers in each course, as well as the lectures.' Attempts have been made also to institute 'test-examinations,' which students must pass at their respective schools before going in for the public examinations. But somehow this does not seem to meet with their approval. They imagine, I suppose, that it interferes with the liberty of the subject, and that, being 'Britons,' they are not destined to be 'slaves,' and therefore if they please to go up and be plucked, no one has any right to prevent them.

"Another most important advance in teaching is, that it has become a great deal more practical. Even in those branches which were formerly thus taught, this mode of instruction has become much more prominent; while in many departments, and especially physiology and histology, it has only been instituted within the last few years. The Medical Council have now laid down definite requirements as to practical courses in these and other subjects, such as surgery, medicine, and pathology. With regard to clinical instruction, it does not matter much where it was first started, or where it was carried on, but the fact is that, with a few remarkable exceptions, it was either neglected entirely until within a comparatively recent period, or was so unsatisfactorily conducted, that the great majority of students shirked it altogether. Now it is becoming one of the most important methods of teaching everywhere, while classes are instituted for systematic training in the more elementary parts of practical surgery and medicine, both as regards diagnosis and treatment, which until now have never been formally recognised. In connexion with this practical teaching, a most important matter is that students are obliged to take their part in the work, and actually to do things for themselves. Time was when they listened or not, just as they felt inclined, to what the teacher had to say; or they saw him do something, use an instrument, perform an operation, or what not, and with that a good many were perfectly satisfied, making no attempt whatever to do anything for themselves.

"These are the only changes which time permits me to notice at any length. I may just add, however, a few words with regard to certain matters bearing on examinations. There seems to be a tendency to raise considerably the standard of certain of the higher examinations, and also to encourage students to go in for them by offering numerous 'honours.' The examinations for the army and navy are becoming very efficient, especially the former. For the public appointments of 'medical officers of health,' it is probable that before long there will be a special diploma granted in 'State Medicine.' In order to make some students a little more concerned as to whether they are rejected or not, most places now limit the number of times they may present themselves for the same fee, and I think this idea might with advantage be still further extended, by altogether preventing a man from going up more than a certain number of times. Some examining boards will not admit candidates for their qualifications, if they have been rejected elsewhere, until after a certain interval has elapsed. The Medical Council have, however, and I think rightly too, declined to recommend this as a general thing.

"Before quitting this subject I feel constrained to offer a few observations about a matter which certainly calls for some explanation, and about which it is highly important that we should try to come to some definite understanding. We are confronted by the serious fact, that in almost every examination the proportion of candidates who are 'plucked,' or, to put it in more euphonious language, 'remitted to their studies,' is remarkably great, while in the higher examinations only a comparative few reach above a medium standard of excellence. At the first glance this certainly looks very extraordinary, and we want to find out what it all means, and whether this unsatisfactory state of things cannot be altered. I have a strong impression that if students generally were canvassed on the subject, they would soon settle the question, by saying that it was all the fault of examiners and teachers, while they themselves would be as innocent as lambs. It is not quite so easily settled, however, and I would invite you now honestly and conscientiously to consider the matter with me a little more closely. I think that I may truly say that my sympathies go very strongly with students; but it is of no use flattering you, and letting you go away with wrong ideas on this subject, if you need being told a few homely truths, which some of you do very much.

"I quite believe, and am not afraid to say it either, that examiners are wholly responsible for a certain proportion of rejections. This is the only explanation than can be given of the failure of certain students of the highest attainments, and I have again and again received accounts from men upon whom I could place the most implicit reliance, as to the manner in which they were examined, which could leave no doubt on any candid mind that they had been most unfairly, and sometimes most insolently treated. Nor have I yet forgotten my own experience at examinations, and it is not likely that I ever shall. Not being possessed of the strongest nerves, it seems quite a marvel to me, when I look back now, and try to realise how I ever managed to struggle through the combination of crotchets and downright bullying which it has sometimes been my unhappy lot to encounter. On the other hand, it is a great pleasure to remember other examinations, which were conducted in a manly, straightforward manner, and where one was treated with kindness and consideration.

"All examiners who are responsible for the undeserved rejections of candidates are, however, by no means equally to blame. There are those who simply do not know how to examine, who have no aptitude for the work; and it would be well to remember that such are not only met with at the London University. In the discussion at the Medical Council this was plainly acknowledged. One member said, 'examination required to be studied as an art, and practised

as a profession. Many could teach and lecture, but there were few men who could examine properly. He believed that many men were rejected owing to the faults of the examiners.' Another remarked, 'the best examiners were found among successful and experienced teachers. Examination was a great art and a great gift.' Therefore if a man tries his best, but fails in what is acknowledged to be so difficult to accomplish properly, one can always make allowances, though it does seem very absurd, as is sometimes the case, to appoint examiners who have no particular knowledge of the subject upon which they will have to examine, and who must read up for the occasion, or such as have had no experience in teaching students. But there is another class of examiners who deserve no consideration, and against whom I feel we should strongly protest. They are those who seem to look upon students as their natural enemies, and who act as if their function was, by any method which suits them best, to prevent those unfortunate individuals from gaining an entrance into the profession. Some take a great deal of trouble to put their questions in the most unintelligible form possible, or hunt up some dreadful obsolete words, which the student has never heard of, but upon his knowledge of the meaning of which depends entirely his ability to answer their questions. There are others who deliberately try to mislead and puzzle students in various ways, in their *vivâ voce* and practical examinations, making these perfectly ridiculous and useless as real tests, but who are extremely pleased with any one of them who is able to give the right answer to some pet crotchet of theirs, which the said student has probably obtained from a certain undesirable source. Then there are examiners who, I am glad to say, chiefly belong to a bygone age, and whom, perhaps, it might be as well not to notice, were it not that they do not seem yet to be quite extinct, and we want to impress upon those who still exist, that they are really altogether out of place at the present day, as we are now supposed to be living in a period of advanced civilisation. I allude to those who do not appear to have what we call 'feelings' themselves, or to think that anyone else has. They meet the trembling candidate, who generally does tremble very much, knowing whom he has to encounter, with frowning looks and a terrible expression of countenance; address him in a voice of thunder and sometimes in language not suggestive of the highest school of culture; and altogether exhibit a style of behaviour which is quite incompatible with being examiners of gentlemen. It would be well for such to remember that the goodwill even of students is worth something; that, however eminent their position in the profession may be, they have no right in dealing with them to set aside the ordinary rules of courtesy; and that by so doing they gain an unenviable reputation, and may in the end even cause their very names to be universally despised and hated.

"But now let us look at the other side of the question. And I must express my emphatic opinion that, with all their faults, examiners are not responsible for a considerable majority of failures. There is a certain course of examination laid down; a certain standard must be reached; candidates fall short, and sometimes very far short, of this; and hence examiners cannot avoid rejecting them. Then comes the question, why do not candidates attain to the necessary standard? No doubt the changes in the examinations constitute one most important cause. These are considerably more difficult than they used to be; the knowledge required is much more extensive, and it must be far more complete and accurate, particularly for the higher examinations. But certainly, looking at those for the ordinary diplomas and licences, one cannot imagine that their difficulty ought to account for many failures, especially as the proportion of marks which it is necessary to obtain is generally not by any means high. The addition of the written and practical portions to the examinations has undoubtedly increased the proportion of rejections considerably, for many a man who could get through *vivâ voce* questioning easily enough, cannot stand these tests. Then there are not a few errors of detail in conducting examinations, which I cannot enter upon here, but which unquestionably demand attention.

"Teachers have come in for a pretty good share of abuse during the past year, and in numerous articles and letters have been made chiefly accountable for the unpreparedness of students. I am quite ready to admit, as one of them, that we are to some extent to blame, and that we might improve considerably in many respects; but that we are to be shouldered with the failure of all sorts of students, whether wanting in ability or neglectful of their work, is ridiculous; and a good deal that is said on the subject has no better foundation than in the case which was alluded to at the Medical Council, in which, at a certain examination, a candidate did not know where either the spleen or cæcum was situated, and his only excuse was that he had been badly instructed, and that he had forgotten the little he had known! The fact is, that many teachers work exceedingly hard, and try to the best of their ability, often under many discouragements, to perform the very onerous duties which devolve upon them. Besides, it is difficult to come to a positive conclusion as to how far one is justified in going in the direction of instruction, and those whose position and experience give them authority to speak on this subject hold very different views. We are bound to remember, whether students like it or not, that they are being trained for the future as well as being prepared for their examinations. We must, therefore, on the one hand steer clear of doing too little for them, thus letting them waste their time and energies in misdirected labour, or on the other hand of doing too much, so that they lose all self-reliance, become indisposed or unable to help themselves, have no knowledge but what has been driven into them, and thus go out into the world with their faculties untrained, and in every way unfitted for the work which lies before them. This is the great evil of the system of 'grinding,' which necessarily tends to turn a lot of idle, worthless beings into the profession who are in no respect qualified for its duties and responsibilities. And there is a danger even at the present day lest a good deal of the instruction at our medical schools should degenerate into this type. Still, there is 'teaching' which is not 'grinding,' and, so far as my own views are concerned, derived from no small experience of students, I believe that not only are we justified, but we are actually called upon to do a great deal for them, if we wish them to make a proper use of their time and opportunities, and not only to pass their examinations, but also to become fairly competent to practise their profession. We must adapt ourselves to circumstances, as is constantly done in legislation, and what may not be absolutely correct in theory becomes under certain conditions not only allowable, but imperative. Now, it is of no use expecting students to be perfect; at any rate, they are not; and the fact is, that the large majority of them have not the gift, or will not take the trouble, unless assisted, to work in such a way as to turn their advantages to the best account, and they are liable to go hopelessly wrong. Therefore, they must have more or less aid, and direction, and training, according to their several requirements; and my belief is, that teachers may give them all this without doing them the least harm, provided they are careful that their instructions are really useful, that they do not interfere with but rather tend to encourage the development of the mental faculties of the students, and that they only help those who are deserving. For a student who never tries to work, and who makes no effort on his own account, absolutely nothing should be done, for it is anything but a pleasant contemplation to think that one has had any hand in bringing a man into the profession who has no right to be there; but if this standard be adopted—to help men who themselves—I think that teachers ought gladly to do all in their power to remove their difficulties, and to encourage and aid them in their progress. And I believe, gentlemen, you will find that here at least this is the principle which is carried out.

"I am afraid a good many students do not avail themselves of such opportunities as are within their reach to the extent which they might do, and do not take full advantage of such aids to their progress as their teachers think they need. This results partly from conceit, for some students believe they can do everything for themselves and want no assistance; partly from carelessness and an indisposition to take any more trouble than they can possibly help; and partly from a sort of notion that the opportunities are not exactly what they want, and therefore it is of no use trying to get any good out of them. For instance, it is not an easy matter to make some students understand that it will be of the greatest service to them to practise writing answers to questions under the supervision of their teachers, to be present at *vivâ voce* examinations, to 'take cases' in the wards of the hospital, or to attend certain practical classes. Then it is not an uncommon idea, that in order to learn medicine or surgery, a hospital containing some hundreds of beds is absolutely essential, and it is useless to attempt it in a small hospital. If there are any present who think thus, let me just quote what one of the greatest physicians and clinical teachers now living said from

this platform. His words are, 'All I know of medicine I owe to University College; for its hospital, small though it is said to be, has supplied me with means of acquiring all the knowledge of medicine I possess.'

"Now let me say a word or two about wrong methods of study. Some students unquestionably work a great deal too hard. They forget altogether that they need recreation of body and mind, and thus they not only injure their health, but confuse and wear out their mental faculties, so that when an examination comes on, they are quite unfit to undergo the hard work which it often involves, and do not succeed nearly so well as they ought, because they have thoroughly muddled themselves beforehand. It is not an unfrequent mistake to read a great number of books on every subject, and thus to load the memory with a confused notion of an enormous amount of information, which is really of little use, either for examinations or anything else. It is certainly far better to concentrate the reading as much as possible, though not to the extent which some gentlemen do, who would like to have the whole of the medical sciences crammed into a book which they could carry in their waistcoat pocket. Then there is a good deal of want of system in studying, and no attempt is made to try to pick out what is essential, and to arrange it in the memory in anything like order, so as to be ready for use. I know much of this is due to natural defects, but still many students might improve greatly in these respects, especially with a little practice.

"We must also not forget that there are other more serious defects, many students not being possessed of a retentive memory, or being in other respects wanting in ability, and having, therefore, to work under great disadvantages. With such I sympathise very sincerely, and would give them this advice—Not to be above recognising their deficiencies; never to hesitate about asking for the assistance and direction which they need; and not to be disheartened, but to exercise themselves in trying to overcome their failings. They will probably be astonished to find how much their faculties may be improved and quickened by cultivation, and what they themselves are capable of achieving, if they only give themselves heart and soul to the task.

"From the discussion which I have just concluded as to the causes of failures at examinations, it would appear as if there were still not such a complete understanding and harmony between examiners, teachers, and students as ought to exist, and I think it must be acknowledged that such is the fact. Why should this be? Why, instead of finding fault with each other, cannot we all combine for one great purpose, and that is to make our profession in reality the high and noble calling which it is in essence? For this end we want examiners fully competent for their duties, and determined to perform them conscientiously and impartially, at the same time exhibiting all due courtesy and kindness. We want teachers, not only possessing the ability, but also willing and eager, so far as they can and ought, to devote their best energies to the training of those who are committed to their charge. And we want students fully alive to their obligations and responsibilities, and ever ready to respond by their actions to all efforts put forth on their behalf. In the beautiful address delivered by Sir James Paget the other day at the meeting of the British Medical Association, occur the words 'contagion of earnestness,' and they seem to me admirably to express the influence which teachers and students ought always to exert upon each other. Do not imagine, gentlemen, that teachers are indifferent to your progress, but let me remind you that a good deal rests with you as to the manner in which we perform our work. You do not always respond to our efforts, and we might do better if these were more fully appreciated. Want of attention and indifference cause one to lose heart and energy, while earnestness and enthusiasm on your part will kindle a corresponding feeling in us, and will cheer and help us in endeavouring to perform what is under the most favourable circumstances anything but an easy task.

"It is probable that I am addressing students of every stage, from those who are about making their start in life, to whom we offer a very cordial and kindly welcome, to those who are close upon their departure from amongst us in order to enter upon a more serious struggle. There is much yet that I should like to say to you in the way of encouragement and direction, suited to your different circumstances, but time forbids me to add more than a few closing hints. Recognise the great advantages under which you are starting at the present day, and the responsibilities connected therewith. Your preliminary training, more complete education, and more searching examinations, mean that you are expected and ought to be more accomplished practitioners than your predecessors. Then do not, for you need not, forget that while preparing for your examinations you are at the same time laying the foundation for the future, and that when you quit this place, each of you will have had such effects produced on your mind, your habits, and your character, as will be indelible. Therefore work hard, earnestly, steadfastly, so that you may prepare for the keen contest which lies before you. Train all those faculties for which you will hereafter have such constant need. Learn to observe, to reason, and think for yourselves, to concentrate your mental powers upon what immediately claims your attention, to be prompt in decision and action, at the same time avoiding rashness, and to keep under control your imagination and such other faculties as are apt to run wild. Cultivate those qualities which are so essential for every member of our profession,—viz., modesty and profound humility, combined with self reliance; kindness and gentleness, and yet firmness of character; warm-heartedness and the power to sympathise, as well as clear-headedness; charity and forbearance towards your fellows, but at the same time boldness to protest and to fight against everything that is wrong and degrading.

"I hope that any of you who are about going forth into the world are well and fully equipped. But whatever your success as students may have been, be not content with this and think that you may now lie down in ignoble ease. Whatever sphere of labour you may select, there is enough within it to call forth your best powers. Be courageous; face your difficulties like men; have strong faith and hope in your profession; do not aim low, or be satisfied with any lot into which circumstances seem to cast you, but study your forte and choose for yourselves, making circumstances bend to your will. But wherever you may be, always make intelligent use of the knowledge you have acquired; strive to keep up with the times, and to make yourselves masters of every advance which is taking place in our profession; do what you can—and every one of you can do something—towards contributing to its true progress, and towards the removal of abuses; and on every occasion, as well as in all relationships, act the part of kind, honest, upright, straightforward gentlemen.

"With all my heart, gentlemen, do I wish every one of you success in the truest sense of the word. But in order to win success you ought to deserve it. We sometimes see a man who has spent his time in idleness and frivolity, in after-life, aided by favouring circumstances, get ahead of those who have been diligent and hard-working, and I confess that to me the sight is not an agreeable one. My sincere desire and hope is that those who have earned success here may achieve it hereafter, though there is no reason whatever why you should not every one deserve it. And remember that a successful life need not be a brilliant or a long one. There are many obscure village practitioners, who in reality are far more successful than some who seem to float on the highest wave of worldly prosperity; and there are tablets in this College erected to the memory of those who, having scarcely emerged from their student-life, accomplished more in their brief career, and were more truly successful, than most men who reach their three-score years and ten. To such men would I point you as examples. Follow in their footsteps. Make your mark for good in the sphere in which your lot is cast, whether it be large or small. Let your life be, not a dark blot or a hideous caricature, but a finished picture, grand and beautiful and attractive to look upon. You may even now, if you choose, be sketching the outline of that picture; and hereafter, if your lives are spared, you can fill it in, and make it perfect and complete, by devoting yourselves earnestly and faithfully to your duties, whatever they may be, and by taking your part in the conflict with disease and death, in the alleviation of pain, distress, and misery, and in the endeavour to sweep away many of the direst ills which now afflict humanity."

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Death of M. Elie de Beaumont.—This celebrated geologist has just died at his country seat, in the seventy-sixth year of his age. Perpetual Secretary of the Académie des Sciences, and Professor at the Collége de France and the Ecole des Mines, he has long occupied one of the foremost positions among French men of science.

ABSTRACT OF THE

## INTRODUCTORY LECTURE

DELIVERED AT ST. GEORGE'S HOSPITAL

By W. HOWSHIP DICKINSON, M.D. Cantab., F.R.C.P., etc.
Physician to St. George's Hospital, etc.

The Introductory Lecture was delivered by Dr. W. Howship Dickinson, Physician to the Hospital.

The lecture opened with an allusion to St. George, contrasting his ancient calling as a soldier with his present position as patron to a hospital, wherein he wages no war but with disease, his enemy that crowned shadow whom mortals fear, the frontier in dispute that of the dark monarchy from whence no ambassador returns.

Pausing for an instant on the importance of medicine in reference to the amount of preventable disease, the unnecessary deaths in England alone being equal in one generation to the population of London, or in one week to as many as were put to death in France during the Reign of Terror, the lecturer said—"'*Sanitas sanitatum, omnia sanitas*,' may well be accepted, in default of a better, as the motto of a political party; and I think it will be well for the State, and but duly regardful of a waste of life which is only to be paralleled, and that but for a short time, by war on the largest scale and in its most sanguineous shape, when the profession to which we belong is represented in the councils of the nation as weightily as can be insured by official place and conferred dignity."

Proceeding to the present state of medicine in relation to the allied sciences, the antiquity of medicine was contrasted with the modern origin of the sciences with which its advance is connected—old tradition and new knowledge, each with their claims to consideration: medicine, in one view, rich with the spoils of time; in the other encumbered with some of its dust.

Ancient and mediæval medicine were touched upon, and the mediæval physician sketched as a visionary, with the astronomical globe ready to his hand and his portrait bordered with the signs of the zodiac, some of whose theories—the doctrine of signatures and the humoral pathology—still influence practice, the latter especially in the absurdities of counter-irritation, some of which were described as more worthy of the genius of Red Indians than of the benevolent intent of one Christian to another.

Turning now to later modes of thought, the great advances of chemistry during the last hundred years were referred to, with the medical improvements consequent thereupon, culminating in anæsthesia by inhalation. Pathology was similarly dealt with, together with the recent origin of the achromatic microscope, and the new views thence derived as to the nature of disease; pathology, like the age, becoming materialist; functional or unsubstantial diseases flitting before the microscope like ghosts at sunrise. The lowest forms of organic life were referred to in regard to the large influence, strangely disproportioned to their minuteness, which they exert as causes of disease upon the fortunes of humanity.

Declining to enter upon the subject of spontaneous generation, but professing himself willing, if necessary, to adopt the view of the Roman Commander with regard to the animals of the Nile—"Your serpent of Egypt is bred now of your mud by the operation of your sun, so is your crocodile,"—the subject of modern advance was completed by mention of the instruments dealing with light and sound which have advanced the art of diagnosis.

Thus, tracing the recent progress in medicine, directly or indirectly, to knowledge extraneous to itself,—seeing for how long in the absence of the sciences it remained stagnant, or with only fitful progress; how fanciful theories led to erroneous practice which observation alone was inadequate to correct; and how sharing in the development of science it has made greater progress during the last hundred years than since the epoch of Galen, the physician of the early Roman Empire,—to natural science was awarded the first place among the agents of medical progress. But it was not to be forgotten that science, however advancing, was necessarily imperfect; it might mislead as well as lead aright, and prove on occasion, not a guiding star, but an *ignis fatuus*. Hence suggestions thence derived must be scrutinised in their application with suspicious care, ever adjusting, correcting, and, where necessary, renouncing the indications of principle according to the teaching of observed results.

Giving due place to scientific or speculative thought on the one hand, and to experience on the other, the first was the motive power, the second the controlling agent; the first the steed, the second the bridle. With only the one we should be sure to go astray; with only the other we should for ever stand still, or at best advance in a very halting and footsore style.

Theory was insisted on as an idea of purpose inseparable from human action; and practical men, who affect to be superior to theory, stigmatised as no less theoretical than their neighbours, though influenced not by the principles of ripening knowledge, but by the exploded fallacies of the past. "A practical man," according to the great leader, whom, as a conservative, practical men should respect, "is a man who practises the errors of his predecessors."

No therapeutical suggestions should be discarded as too chemical; no pathological inquiry, however minute, as unpractical; no appliances in aid of diagnosis as new-fangled or superfine: observation should be trusted, tradition distrusted.

Students were urged to study the nature and course of disease, so as to be able to interfere with it when necessary and possible, and to be content to leave it alone when, as often happens, the disease of itself tends to health, or, in other instances, is outside the scope of our remedies.

"Let us," said the lecturer in conclusion, "be no mere distributors of salves and potions—for everything its remedy, and half the remedies delusions; but while we practise the art of medicine, study the science of disease, and accept promise of unbroken progress and increasing utility in association with that knowledge of universal nature, ever widening and deepening in all her modes and results, which is the glory of the age and the hope of the future."

ABSTRACT OF THE

## INTRODUCTORY LECTURE

DELIVERED AT KING'S COLLEGE

By PROFESSOR FERRIER, M.A., M.D., etc.,
Professor of Forensic Medicine in King's College, and Assistant-Physician to King's College Hospital.

The Introductory Lecture was delivered by Dr. Ferrier, Professor of Forensic Medicine, and Assistant-Physician to the Hospital.

The lecturer, after welcoming the students, old and new, remarked that the study of medicine was one which presented peculiar attractions, dealing as it does with subjects of universal curiosity and interest, besides being of a continually progressive nature, and offering practically unlimited fields for new and original research. The important position and great influence which the medical profession at present possessed entailed all the graver responsibilities on those who would worthily fit themselves for their professional duties. In the short time allotted to medical study almost the whole circle of the sciences had to be gone through. The impossibility of doing all well had led to serious doubts on the part of those whose opinion on medical education was of the greatest weight, whether some of the subjects at present included in the medical curriculum should not be cut out, so as to allow of greater concentration on the more purely practical subjects. Thus botany and natural history, which can hardly be considered necessary to enable a man to recognise and treat disease, were proposed to be excluded. The lecturer admitted that, so far as purely practical work was concerned, these, as well as some other subjects which had to be studied, were not absolutely essential, but he thought there was danger in fostering the natural narrowing tendency of all purely professional pursuits, to the exclusion of that breadth of scientific culture which had always been the boast of the medical profession, and to which, as much as to its mere handicraft skill, it owed its recent progress and present position. The disproportion between the proficiency achieved and the time spent in studying these accessory sciences he thought was much exaggerated, and pointed out various relations in which even only a general acquaintance with these subjects was of the utmost practical importance. While some branches of medical study might, without disparagement to them, be admitted to be only of secondary importance, there were others which claimed especial attention as constituting the very foundation of all rational appreciation and treatment of disease. Prominent among these stood physiology, the claims of which he desired to urge,

not so much in reference to its position as the key to all scientific knowledge of the nature of disease, which all admitted, but to the less generally recognised important bearing it had on therapeutics or the treatment of disease. The tendency of modern medicine was to place therapeutics on a rational and scientific basis, in contradistinction to its present position, that of almost pure empiricism.

Notwithstanding the thousands of years during which medicine had been cultivated, and the numerous scientific discoveries which helped to constitute the body of medical science, the term "science" was scarcely applicable to that department of it which related to the treatment of disease by means of remedies. Nor would it be till we had succeeded in establishing more definite and precise laws regarding the efficacy and mode of action of drugs. There was hope that, by the study of experimental pathology and experimental pharmacology, which were only branches of physiological investigation, we might realise a science of therapeutics. The method here indicated as that which rational medicine ought to pursue, was, however, opposed by many who regarded as misleading all attempts to rationalise therapeutics by reasonings founded on physiological experimentation on the lower animals, and who looked upon pure clinical research as the only road to trustworthy results. In support of this position many arguments were advanced; among others the mischievous and pernicious errors which the history of medicine showed to have been the consequence of neglecting clinical observation to indulge in theoretical speculation and physiological theories regarding disease and its treatment.

The lecturer proceeded to discuss how far a parallel could be drawn between the early efforts of medical philosophers and the methods inculcated by the physiological physicians of the present day. He gave a short sketch of the development of therapeutics and of the history of the chief revolutions of medical science, and showed that these truly demonstrated the pernicious consequences of medical practice directed by pathological and physiological theories founded on abstract speculation and not on "the contemplation of nature"; and that though, through many errors, some valuable facts have been established, of which we reap the benefit, yet they had often been arrived at by a reckless and hazardous system of experimentation on human beings, which had cost many lives, and from which multitudes had only escaped with debilitated and impaired constitutions. There was, however, little or no analogy between the physiology and pathology of the past and that of the present day, which was founded on rigid experiment conducted according to exact and precise method, and which discouraged all attempts to solve difficulties by mere abstract speculation. To physiological investigation of this character we owe most of our recent progress in accurate knowledge of the intimate nature of diseased conditions. But with all this advance in scientific knowledge of disease and its diagnosis, we are, as far as regards treatment, little better than empirics, unable to give any other reason for our practice than that it has been found beneficial by those who have preceded us. And yet we observe how eagerly everyone, even the most rigid empiric, advances some theory as to the physiological action of the drug he prescribes, and seeks to support his treatment on some rational physiological or pathological foundation. The backward state of therapeutics naturally points to some peculiar difficulties inherent in the subject, or to some imperfection in the method of its cultivation. That the study of therapeutics presents difficulties not encountered in the exact sciences is a fact, the truth of which is easily demonstrated, but which is too often forgotten in the satires levelled at the uncertainty of medicine. The problems to be solved, incapable of being stated with all their data, cannot be referred to exact calculation. Man in a state of health, and much more so in a state of disease, presents such a complex assemblage of phenomena that the discovery of causes by mere clinical observation cannot be but slow and always uncertain. The uncomplicated natural history of disease is difficult to ascertain. Diseases vary and have special features imparted to them by the individuality of the patient; the mental emotions play an important part in the causation, progress, and cure of the disease, so that to allow for each and all of these, as well as many others, to estimate the exact proportion which each has had in the production of the phenomena observed during the progress of treatment, to discount deficiencies and imperfections on the part of the observer, to eliminate all collateral circumstances of personal or other interest in the results recorded, constitute a mass of difficulty which the experience of countless generations has not yet been able to resolve. For if we are to believe the recorded results of therapeutic research conducted under such conditions, we shall be obliged to admit that the same diseases have been equally well cured by the most sanguinary and heroic, and by the most mild and expectant treatment; by remedies founded on the rational pathology of the disease, by infinitesimal parts of nothing, and by peppermint-water. With such conflicting evidence as to the value of therapeutics, need we wonder that "doctors differ" has become a by-word, and that many thinking men, despairing of certainty, have rushed into inveterate scepticism as to the value of medicine in general, and have assumed the position of benevolent neutrality, declining to interfere between the patient and the *vis medicatrix naturæ*.

It is in the nature of the subject, pursued as it has been, that such things should exist; but that we should rest and be thankful, and accept as ultimate facts conditions which may be capable of being overcome, is hardly in consistence with the general spirit of scientific inquiry. We must recognise the necessity of reducing the problem to more limited dimensions, and of bringing the conditions of the investigation under our control, by applying to therapeutics the same exact system of experimentation which has done so much to advance the sciences of physiology and pathology. To experiment on human beings, after the manner of old, is contrary to the genius of the profession; and the progress of research pointed to experimentation on the lower animals as the only means of arriving at that knowledge of the exact action of drugs, which was necessary before a rational treatment could be linked on to a rational pathology. Against this method there were numerous objections, some of which were worthy of serious consideration. It is urged, with some show of reason, that we are not justified in transferring to human beings the results of pharmacological investigation on the lower animals, on account of the differences observed to exist: many drugs which had a powerful action on man exerting little or no influence on animals, and *vice versâ*. These facts were acknowledged, several individual instances were discussed, but these anomalies were not to be regarded as ultimate facts any more than the so-called idiosyncrasies observable among patients. Physiological research had already succeeded in explaining several of these peculiarities, and though all difficulties had not been cleared up, the progress they had made justified the hope that they would all ultimately be removed. In the cases where animals and men were affected in all outward respects in a similar manner—and these only were argued from,—unless physiology were a fallacy, and biology a myth, the establishment of the action of the drug on one of the lower animals was applicable to man.

Hasty generalisation was greatly to be deprecated; and clinical observation, instead of being neglected by scientific therapeutists, required to be, if possible, more thorough, more accurate, and more minute. The differences occasionally arising between "practical men" and experimentalists showed the necessity that existed for a more thorough union of the physiologist with the physician. The results of trustworthy experience were by no means to be disregarded by the pharmacologist. Often the most successful practice was united with the most erroneous theory as to the action of medicines; but though the theory was proved on investigation to be false, it by no means followed that the treatment should be abandoned. It was more philosophical to endeavour to ascertain the real foundation of its proved usefulness.

It was sometimes assumed that pharmacological investigation had added but little to our materia medica as compared with the numerous valuable remedies which had been discovered and established by the method of empiricism, which the rational physician would so much decry. No doubt many of our most highly prized drugs were the result of lucky accident, but many more were the result of hazardous experiments on patients. We could not always wait for lucky accidents, nor were we justified in experimenting on those who sought our aid. Yet it could not be said that therapeutics had reached perfection—witness such opprobria of medicine as cholera, zymotic disease, hydrophobia, etc., before which we had to confess ourselves almost powerless. Physiological research had established many valuable remedies—witness the anæsthetics, hydrate of chloral, nitrite of amyl, calabar bean, and many others,—besides extending the use of many already known; while the ascertained facts of physiological antagonism

had enabled us to counteract successfully many formerly invariably fatal poisons. Results such as these justified the hope that physiological research would one day clear away the many opprobria of practical medicine. Yet there had been some danger that the progress of scientific medicine should be discouraged by the outcry of a certain class against what they called the inhumanity and cruelty of physiological investigators. The lecturer had no intention of making an *apologia vivisectionis*, for he despaired of convincing its opponents of its morality, seeing it only rested on a principle which was acted on, and necessarily, in almost every relation of life. But he strongly objected to the conduct of those who, professing to have such delicate sensibilities, pryed into what was not written for them, merely for the purpose of misrepresentation and vilifying in the public prints those who might be actuated by as high principles of humanity as themselves. To another numerous class a proverb was applicable, which defined certain persons as unfit to see things half done—viz., those who could appreciate the benefits arising from certain physiological experiments, but were unable to understand the bearing or practical benefits to be derived from others of a similar nature, and would therefore oppose them as wrong and unnecessary. To such vexatious opposition it was to be hoped there would soon be an end, but apparently with little chance of immediate realisation in such a curious age of general enlightenment and holy pilgrimages. The lecturer concluded with the hope that he might have excited some degree of enthusiasm for the cultivation of rational medicine.

## ORIGINAL COMMUNICATIONS.

# OPERA CLINICA.

# ON BLOOD-LETTING AS A POINT OF SCIENTIFIC PRACTICE.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

(*Concluded from page* 334.)

### Effect of Blood-letting for the Relief of Spasmodic Pain.

Our forefathers were wont to resort to the abstraction of blood in cases where there was acute spasmodic pain, as during the passage of a gall-stone or of a stone in the ureter. We have other resources now at command for controlling this class of painful affection, for the anæsthetics are at our service with which to soothe, and, if they be carried far enough, to relax muscular spasm. Whether these remedies are better than the old one and safer, it were difficult to say. The following case is typical of the effect of venesection for the relief of pain from gall-stone:—

A man, forty years of age, short, and of full habit, who lived freely and drank his full share of old ale, was attacked with symptoms of congestion of the liver, with slight jaundice. He was treated for this by the late Mr. Edward Dudley Hudson, of Narborough, one of the most admirable practitioners of medicine I have ever known in my time. The symptoms abated, and the man recommenced to follow his usual mode of life. In the middle of a day, a few weeks later, this man was suddenly seized with the acutely painful symptoms caused by a gall-stone passing the gall-duct. A messenger was despatched for medical assistance, and I was soon in attendance. I found the man with his body bent forward over a small old-fashioned table, the pressure upon which seemed, he thought, to give him some temporary relief. The pain was all referred to the region of the gall-bladder; its cause was sufficiently clear, and its intensity I have never seen more severely developed. Anæsthetics at that time were just known, but I had never heard of their application for this particular malady; so I did what nine medical men out of ten would then have done: I had the man placed in an upright position, and bled him until he became faint. To produce this effect in the position named, not more than sixteen ounces of blood had to be drawn, and so soon as the effect was established the pain was gone. Under the action of a purgative, administered the next day, the patient passed, by the bowels, a biliary calculus. He made a good recovery.

In these days we should treat a patient suffering as this patient suffered with narcotics, carrying the narcotism up to the degree of removing pain and causing muscular relaxation. I have been compelled myself to treat in this manner. It is not many months since I sat up all night with a patient and colleague who was writhing in the agony of passing a gall-stone, and on whom the hot bath and a narcotic, repeated over and over again, were of little service until the relaxation of exhaustion, from pain, gave that relief which the loss of a few ounces of blood would have insured in a few minutes. But my hands were tied from the use of the grand old remedy, and I could only look on to regret that I was forbidden to follow out a practice which, at one time, it would have been considered a cowardly fault to have omitted.

### Effect of Blood-letting for Relief of Oppression of Blood in the Heart—Cardiac Congestion.

There are cases of disease in which the right side of the heart of the patient, enlarged and enfeebled, becomes easily oppressed with the weight of blood, and fails to lift its charge freely over the pulmonic circuit. The symptoms under such circumstances are extremely severe. They are compounded of dyspnœa and syncope, with a sense of impending dissolution and oppression at the chest which is indescribable. The veins are tense of blood, the face livid. It was, I doubt not, in these cases that the ancients observed the strange phenomenon of the face of the sufferer becoming of natural colour under the loss of blood.

A patient suffering from these symptoms, and who lived to reach the age of eighty-four years, was under my observation for several months. She suffered two or three times a year from attacks of cardiac congestion, which according to her view were asthmatical, but which were, in fact, due to that weakness and dilatation of the right side of the heart described above. When she was first afflicted she had been treated by the abstraction of blood, and with such success she would never allow any other treatment, when the paroxysm was more than usually severe, until that remedy had been resorted to. She had herself no fear whatever about the loss of the blood, and I knew her subjected to it three times in one twelvemonth. The abstraction of from six to eight ounces invariably brought her relief from the oppression, and "Now I breathe again" was her usual remark as her circulation was restored to its natural course, and her anxious, dark, congested face became clear and natural. This lady died, at last, from simple senile decay.

### Effect of Blood-letting in Pulmonary Hæmorrhage with Hæmoptysis.

On June 11, 1852, Mrs. C., a woman approaching the climacteric, and who had not menstruated for two months, was seized, while walking out of doors, with difficulty of breathing and with vomiting of frothy blood. She was taken to her home at Barnes, and I, being then at Mortlake (near by), was soon in attendance. At the time of my arrival the patient had vomited eight ounces of red frothy blood; there was general and extreme dulness over the whole of the left lung, but the right lung was still clear, and she breathed by it with sufficient freedom to continue to live. Her face was dark and congested, she was nearly pulseless, and her extremities were cold. I had her feet placed in hot water with mustard added to it, and sent for my friend Dr. Willis, of Barnes, with whom I was at that time connected in practice. On his arrival, our opinion being the same—that Mrs. C. was suffering from sudden pulmonary congestion or apoplexy of the left lung, and that the hæmorrhage was a sign of the congestion,—we determined at once to abstract blood from the arm, and drew off three ordinary teacupfuls. On this a tendency to faintness of the patient occurred, but the symptom was trivial, while the relief to the congestion was immediate. The breathing became freer, the hæmorrhage from the lung ceased, and there was reaction, followed soon by a free expectoration of bronchial mucus. In a word, the imminent symptoms, promptly met, were promptly relieved, and recovery, although retarded by an external perineal abscess, which held her back, was completed during the ensuing month of July. In no case I have recorded was the immediate good effect of blood-letting more marked than in this case. It was as distinctly recognised by the patient herself as by us who were ministering to her relief.

### Effect of Blood-letting in Apoplexy.

In 1870 I was called by my friend and neighbour Mr. Roberts, of St. John's-wood, to see a gentleman of middle age, who was lying in a state of apoplectic coma, with recurrent convulsion. The patient was unconscious, his breathing was

stertorous, and his temperature, which had been high, was beginning to fall. His bronchial tubes and trachea were loaded with fluid, his eyes were fixed, and his pupils were contracted. To our minds, and to the minds of all who were present, this patient had not many minutes to live; but as we had permission, in the way of a last resource, to bleed, we carried out the practice of bleeding *pleno rivo*. A vein in the arm was freely opened, and the blood coursed out of the opening in full and high current. At first the blood was very dark in colour, but when twenty ounces had been drawn it came over of a brighter colour. The convulsions ceased, and the patient, for the first time in some hours, gave evidence of consciousness by coughing and spitting up freely the fluid that filled his trachea and bronchial tubes. When twenty-four ounces of blood had been taken, the pulse, which had previously been hard and resistant, became soft; the veins became less tense, and the pupils relaxed. The flow of blood was now stayed. The patient slept without stertor, and the next morning, when I visited him with Mr. Roberts, I saw him move from one bed across to another, and take part in changing his dress. He recovered from this attack with great rapidity, and felt the loss of blood so little that in a day or two he was able to leave the house.

NOTE.

I have thus brought together a list of examples of the effects of blood-letting in different kinds of disease. It is but right to admit that the examples are selected. They are selected by and with intent to prove that a remedy now feared and avoided, which held its ground for nearly twenty centuries with but one period of interruption (by Jacobus Psychrestus, in the time of Leo the Great), is still a remedy potent to save human life. I confess I have bled many times, and have not had the same good results as I have here recorded; but in these instances I have never seen occasion, with a single exception, in which, I think, it was resorted to too late, to suppose that the remedy had inflicted the slightest harm. On the other hand, I have many times not been permitted to take blood, and have seen the patients die when the only means that gave a hope of cure was at hand.

That in this the most feebly endowed age in the whole history of physic—an age of placebo,—the teachings of the fathers of our art should stand for nothing, unnatural fact as it is, is hardly strange. Placebo gratifies fashion, which is our master; ministers to luxurious ease of thought, which is our present weakness; and, so long as we have no informed critics, out of our ranks, to find fault with our work, passes for skilful fencing, even against death. Whether an art so simplified is as safe as it is pleasant is a question I do not wish to discuss; but of this I am certain, that in giving up blood-letting, as a means of cure, it sacrifices both skill and duty to ignorant prejudice and ignoble fear.

## SCIENCE AND ATHEISM.

By LIONEL S. BEALE, M.D., F.R.C.P., F.R.S.

THOSE who, like the writer of the leading article on "Science and Atheism" in the *Medical Times and Gazette* of September 19, fancy they see in Mr. Darwin's works an acknowledgment of the existence of Deity of some sort, frequently quote with praise and satisfaction his assertion that "there is grandeur in this view of life with its several powers having been originally breathed by the Creator into a few forms or one." So far, however, no one seems to have thought it necessary to explain the exact meaning of this vague and extraordinary passage.

Mr. Darwin nowhere tells us what he means by *life*, and he is silent as to when, where, or how life originated. He does not even suggest whether it is more probable that life was created before it was breathed into the one or few forms, or at the moment of the breathing in. If it is admitted that the power of breathing life into forms once existed, the advocates of the doctrine ought to offer some explanation of its cessation; but no one has yet shown whether such power does or does not exist at this moment.

But what are Mr. Darwin's "forms"? How, when, and under what circumstances came they into being? We must surely suppose them to have been created before life was breathed into them, in which case we must suppose two stages in the creation of each original living being. Whether the second stage, consisting of the inbreathing of life, immediately followed the first stage, the creation of the form, or only after a short or long interval, does not appear.

Some authorities maintain that the living phenomena of the first forms, and all subsequent forms "evolved" from the first, are due to the properties with which matter was endowed in the beginning; but this view precludes altogether the idea of life being breathed into matter, and accounts for the whole process of the creation of living beings without enduring Deity of any kind whatever. Creative Power, if admitted at all, must be restricted as regards the duration of the period of its operation, and "the endless forms most beautiful and most wonderful" must have been evolved, or must have evolved themselves, without more creative interference, will, design, or directive influence, than is included in the operation of "inexorable law."

The idea of the only sort of Deity admitted by the hypothesis referred to, differs so very little from the idea of no Deity at all, that it would not be easy to formulate the difference. Is it likely that intelligent beings who have proved that they possess the power of influencing, however slightly, events about to happen, will rest satisfied with the contemplation of the shadow of a creative impulse that might have been active in a remote past, but must have perished, self-extinguished, ages before the present order of things began?


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# Medical Times and Gazette.

SATURDAY, OCTOBER 3, 1874.


## THE INTRODUCTORIES.

WE are glad, as the revolving year again brings us to the First of October, to find that the custom of opening the medical session with an introductory address is still all but unanimously observed in our medical schools. The exception is remarkable, as occurring at one of the largest and most famous of the schools; and the example thus set might, without exciting any wonder, have ere this been followed elsewhere. But we rejoice that this has not been the case, for we do not doubt that the "Introductory Lecture"—introductory to the study of the science and art of medicine, not to the study of a portion only of it—is a good, and may be a very good thing.

And, believing this, we think that when one of the leaders of the profession steps forward to deliver the address, he is doing a work deserving especial acknowledgment and thanks.

We are not able to give more than an abstract of the address given at Guy's Hospital by Sir William Gull, but that abstract will be eagerly read and studied. It is admirable for its scholarly style and high tone; and it requires study, for it is full of suggestion and thought. "The study of medicine," Sir William tells the student, "is liberal and unfettered. It ranges through human nature and into nature in general. It looks at man in every aspect, and has this great collateral advantage for its followers, that in pursuing it they are learning something of themselves." The medical student has, therefore, he says, peculiar advantages: "there is nothing in his studies to limit and contract his feelings or his sympathies, nothing to make him take a new and unworthy view of man or his destiny"; for, as Sir Thomas Browne said, "there are two books from which we may gather our divinity; besides that written one of God, another by His servant Nature—that broad and universal manuscript which lies expansed to the eyes of all." Then Sir William warns the student not to think "that it is only by some strong intellectual effort that good work can be done; whereas, in truth, it is more through patient and well-directed labour." The first lesson for him to learn is patience—"a patience which knows how to work and wait"; and the next lesson is docility, a readiness to learn at any source, not fastidiously or delicately, not where it may please us, but wherever the facts lie hid,—remembering that to the pure all things are pure, and that, in the investigation of truth, there is no high nor low, no great nor small,—that, to use a common simile, like the rays of the sun, the rays of science enter alike every place": innumerable instances teaching us "that the highest truths lie hid in the simplest facts; that, unlike human proclamations, Nature's teachings are not by sound of trumpet, but often in the stillest voice, by indirect hints and obscure suggestions; but always with the unequalled advantage that they are unequivocal, constant and uniform."

Speaking of the "order of Nature," Sir William remarks that "in one aspect it is unvaried. The materials—the material atoms as we now think of them, the physical elements as they are called—are believed to have constant qualities. What these qualities are we only know very imperfectly, but, as far as our acquaintance with them goes, they are not subject to any variation. The variations in phenomena are the variations in their combinations or the variations of their relations; but in the substratum itself there is no variation, nor any in the resultant when the conditions are the same. That is the law of Nature, but obviously its course admits of infinite variations. . . . The whole object of the science of medicine is based on this assumption. It is the whole purpose of our knowledge to find out and obviate what is inimical to our nature, and to discover and promote what is favourable to us." To man intellect is given to help him in the struggle for existence, and he has "the prerogative of knowing the course of nature, and of changing it for his good. When we hear the complaints of the weak and ignorant against the hardness of their lot, when we are moved in sympathy with the sufferings of the sick, let such complaints and our sympathy remind us that, in the providence of God, the intellect of man comes in as a corrective agent. . . . Even at present, feebly instructed as we are, so much has been done as to give us good assurance that the time will come that the triumph of intellect will fully 'justify the ways of God to man,' not only by obviating or controlling human suffering, but by so combating the faults of ignorance and enlarging knowledge that humanity may recognise its high destiny, and walk in the light of it." Some examples of "what has been done" are then given, and it is observed that "these are, happily, not solitary illustrations of man's power to modify the course of nature for his own good. Civilised life is but a varied expression of such illustrations. There still remains an unlimited arena for future work, and for that crusade against the powers of evil which is inaugurated in this and other hospitals year after year." Further on, Sir William impresses on his hearers the necessity of a due and strict training of the senses and the intellect; bids them resolutely to determine that they will never be satisfied with second-hand knowledge from lecturers or books when it is within their power to get impressions directly from the objects themselves. "The senses and the mind are active powers which call for due objective exercise; medical study is a mere pretence without it." Exhorting the students to aim at high and wide intellectual culture, he says—"Accumulate all the high and honest motives you can for your intellectual culture; they will be severally wanted on different occasions." And after enumerating many such motives, he adds—"Supplement them by the highest—your duty to the Highest,—who alone can satisfy the wants of your nature, and with whom a faithful study of your profession cannot but make you better acquainted." We will make only one more quotation from Sir William's most admirable address. Bidding the student to remember ever that "the course of nature in man tends to physical, moral, and intellectual perfection," he says—"No disappointments, no failures, how often soever repeated, should make us turn our backs on the final purposes of our life. It has been thought that the study of medicine is apt to divert the mind from these higher considerations. I believe such an opinion to be as unfounded as that our familiarity with suffering makes us indifferent to it. Such opinions are held only by those who are either ignorant of the large extent of our studies, or who do not sufficiently bear in mind that its range is from the 'atoms that make the textures, to the hopes that make the man.' As students of man, we can no more ignore the immeasurable relations of the one than we can deny the ponderable relations of the other, for man's hopes as rightly tend to the highest and the best, as his material atoms to the centre of gravitation."

It may be remembered that Dr. Roberts was to have given the Introductory Lecture at University College last year, but was prevented by indisposition. This year happily no such evil impediment stood in his way, and he delivered the excellent address we have been enabled to give *in extenso*. Dr. Roberts tells the students that he has thought he should do them best service by discussing "certain questions bearing upon the position of our profession, its internal organisation, and external relations, and upon medical education and the examinations" through which they were to be admitted as its recognised members; and feeling strongly, he says, that "when anyone is placed in the position which I now occupy, he has not only the right and privilege, but is bound to speak out boldly and without fear, if he conscientiously believes that there is anything going on in which those whom he is addressing are interested, which is seriously wrong in principle or practice," he proceeds to speak with great boldness and frankness of the many evils that experience and observation have taught him require to be denounced or reformed. Certainly the *couleur de rose*, which is generally so freely used in depicting the profession for students, is not used by Dr. Roberts. "Essentially and in the abstract," he observes, "of course the 'doctor's' calling is everything that ever has been or can be said in its praise"; but, he goes on to say, "You will probably find in connexion with the profession, and in your own experience, that you will have to contend with many difficulties, disappointments, and annoyances; that the daily routine of a doctor's life is dull, trying, and worrying. What is still worse, the conviction may be forced upon you that our calling is not quite so honourable as you were led to believe. You may see much that dims its lustre, which is decidedly degrading, and which jars against one's better feelings; while you cannot fail to notice that our external relations are extremely unsatisfactory in many points of view." And then he shows cause for this gloomy representation. "In

connexion with the Army and Navy Medical Departments there are real grievances of a most serious character, of which we hear constantly, but there is no sign of any intention to redress them. . . . The Poor-law Medical Service also is in many parts in a decidedly degraded condition, and is scarcely anywhere fairly recognised. Politically, we are simply nowhere"; while "there are great questions now before the country, and there are many more which ought to receive immediate attention, and which must sooner or later come to the front—questions which affect the health and well-being of vast communities,—and to these the members of the profession, collectively and individually, must devote their most earnest attention, if they would fulfil their functions properly." But we have no political power or influence; "we cannot probably influence half a dozen votes in the House of Commons, and Governments, therefore, make no attempt to conciliate us." Then, "the public generally do not treat us fairly or kindly, or with a due regard to the just demands of our calling, or to the difficulties and trials which those who practise it have to encounter." We are, by many, abused or laughed at, and very many "educated and apparently sensible" people prefer the opinion of some ignorant quack to that of an intelligent and well-informed qualified medical practitioner. The members of the medical staffs of hospitals, etc., do not meet at all fairly and fully with the consideration that is their due, though "every physician or surgeon to a public charitable institution deserves very generous consideration at the present day. It is a position which is very difficult and trying to fill, the work is exceedingly hard and exhausting, patients are anything but easy to please, and, instead of being so very thankful, as some suppose, real gratitude is decidedly the exception among them rather than the rule, while, after all the toiling, it is but a comparative few who achieve anything very notable in the end."

Dr. Roberts then proceeds to speak of the evils within the profession, the want of more union and organisation, the petty jealousies and the quarrels, the deficient education of many, carelessness and want of common sense, and the absence too often of lofty motives and of such a sense of the real dignity of the profession as would enable its members to bear themselves nobly and honourably through the daily struggle for existence. He warns his hearers of the temptations that will beset them in practice, and the constant danger there will be of their doing things "which are not eorrect or straightforward" unless they are protected and sustained by a high notion of the dignity and beauty of their calling.

The lecturer then considers medical education and examinations in the same spirit of frank criticism, not sparing either corporations, examiners, or candidates, and displaying, perhaps some will think, an intolerance of imperfection and an impatience of delays in reform that do not often outlive, in words, the enthusiasm of earlier days. He gives much information that will be very useful to the students as to "the more recent changes which have been made affecting medical education and examinations, as well as of those which are still in progress, or which seem probable," and finally tells the student how he should work, and live, and practise:—

"Learn to observe, to reason and think for yourselves, to concentrate your mental powers upon what immediately claims your attention, to be prompt in decision and action, at the same time avoiding rashness, and to keep under control your imagination and such other faculties as are apt to run wild. Cultivate those qualities which are so essential for every member of our profession—viz., modesty and profound humility, combined with self-reliance; kindness and gentleness, and yet firmness of character; warm-heartedness and the power to sympathise, as well as clear-headedness; charity and forbearance towards your fellows, but at the same time boldness to protest and to fight against everything that is wrong and degrading."

At King's College, Professor Ferrier spoke of "the important position and great influence" at present possessed by the medical profession as entailing all the graver responsibilities on those who would fit themselves worthily for their professional duties; and, in connexion with some remarks on the extent of the medical curriculum, and on some proposed or suggested changes in it, said that he thought "there was danger in fostering the natural narrowing tendency of all purely professional pursuits, to the exclusion of that breadth of scientific culture which had always been the boast of the medical profession, and to which, as much as to its mere handicraft skill, it owed much of its recent progress and present position." After pointing out that some branches of medical study may be considered as being only of secondary importance, while others constitute "the very foundation of all rational appreciation and treatment of disease," the Professor proceeded to say—"Prominent among these stood physiology, the claims of which he desired to urge, not so much in reference to its position as the key to all scientific knowledge of the nature of disease, which all admitted, but to the less generally recognised important bearing it has on therapeutics and the treatment of disease. The tendency of modern medicine was to place therapeutics on a rational and scientific basis, in contradistinction to its present position—that of almost pure empiricism." This is the key-note of the Professor's address, which is an able and eloquent argument for and defence of "rational medicine."

At St. George's Hospital the address was delivered by Dr. W. Howship Dickinson, who dealt chiefly with the progress and advancement of medicine, and the means and sources from and through which that progress had been made. Tracing the recent progress in medicine, directly or indirectly, to knowledge extraneous to itself, and showing for how long in the absence of the sciences it remained stagnant, or with only fitful progress; how fanciful theories led to erroneous practice which observation alone was inadequate to correct; and how, sharing in the development of science, it has made greater progress during the last hundred years than since the epoch of Galen, the physician of the early Roman Empire, the lecturer gave to natural science "the first place among the agents of medical progress." But at the same time he warned his hearers that science, being imperfect, "might mislead as well as lead aright, and prove on occasion, not a guiding star, but an *ignis fatuus*"; hence suggestions derived from it must be "scrutinised in their application with suspicious care, ever adjusting, correcting, and, where necessary, renouncing the indications of principle, according to the teaching of observed results." Theory the lecturer insisted on as "an idea of purpose inseparable from human action"; and he pointed out that "practical men who affect to be superior to theory are no less theoretical than their neighbours, though influenced not by the principles of ripening knowledge, but by the exploded fallacies of the past"; and he effectively quoted one of the epigrams "of the great leader, whom, as a conservative, practical men should respect"—viz., "A practical man is a man who practises the errors of his predecessors."

The rest of the Introductory Lectures, metropolitan and provincial, we must reserve, for both publication and comment, till next week.

## SCHOOL OF MEDICINE FOR WOMEN.

If the leaders and followers of the female medical education movement have not attained to the consummation of their wishes, they have at least reached a stage in their toilsome journey from which some of them can look back with mingled feelings of satisfaction and disappointment. Those whose motive it was to cultivate the Bloomerism and Woman's Rights Movement in this country, under the guise of female medical

education, will be sorry to have finally to adopt the conclusion that the only way in which women can be decently educated in medicine in England is by establishing a school at which they can prosecute their studies without introducing turmoil into college councils, exasperating medical students, and demonstrating to the outside public that social equality is, in their eyes, a thing which must be obtained even at the expense of decency. The Edinburgh paper which for several years has been the unreserved advocate of female medical education, informs the public that "London is, after all, to have the honour of taking the lead in furnishing a complete medical education to women, and that a regular medical school is to be opened there for them in the course of next month." Thus it will be seen that the advocates of the scheme which has caused so much discord in medical circles, and which has sent several of the widening eddies of its fall into general society through the London newspapers, have been driven by the force of general and professional opinion to take the preliminary step which their sensible friends and the great body of those who have been against them have all along indicated as much more reasonable than their early vigorous but unequal mode of progression. It is to be hoped that as the female part of the population of Great Britain can now boast of a special school of medicine in London, the University and College of Edinburgh will be relieved from the vexatious presence of those who for some time past have been endeavouring to force their way into these highly reputable institutions. Now that the female enthusiasts in medicine are in the dawn of their first session in a school where everything will be subservient to their own interests, it is sincerely to be hoped that they will each and all aid with their presence and their means the new educational project, and obviate any danger of early failure which might result from squandering their resources on institutions which for four or five years have offered them little but opposition both in law and medicine. We have no doubt that they will do so when they remember that such a course will be advantageous to others as well as to themselves. It will promote the welfare of the London School of Medicine for Women, and relieve other schools from internal annoyance, and from the hurtful publication of an inevitable discordance of opinion on an altogether unnecessary subject of discussion. Edinburgh has declined the honour of furnishing a complete medical education to women, and the best thing which the promoters of this education can now do is to concentrate their energies upon their own new school, and by concerted action lead to that success which alone can convince the public and the Edinburgh Senatus that the latter has spurned ardent addresses which if accepted would have insured for it the unanimous approval of the coming race.

Now that the determination has been arrived at of establishing a special school for women, it cannot fail to strike all who have had any hand in the female medical agitation how much better it would have been if this step had been the first instead of the most recent in the movement. In all probability the advocates of the system would not in this case have been called upon to settle ticklish points in the constitution of universities and the law of libel. It would have been unnecessary for them publicly to malign unfortunate examiners. Their studies could have proceeded without the assistance of the gallantries of some medical students and the exaggerated opposition of others; and it is not at all unlikely that if they had adopted conciliatory instead of aggressive measures it would have been made possible for them to graduate in peace and practise with profit.

The management of the new scheme is, if we are rightly informed, in the hands of a provisional council, including such men as Professor Huxley, Dr. Burdon-Sanderson, Mr. Critchett, Mr. Berkeley Hill, Dr. Charlton Bastian, Dr. Hughlings-Jackson, etc., and the only two registered female medical practitioners in this country. The lecturship in midwifery will, it is said, be held by Mrs. Garrett-Anderson. There will probably be a full series of lectures. The school, we have heard, will have the services of Dr. King Chambers in practice of medicine, Mr. T. A. Norton in anatomy, Mr. Berkeley Hill in surgery, Mr. Critchett in ophthalmic surgery, Mr. Heaton (of Charing-cross) in chemistry, Mr. A. W. Bennett (of St. Thomas's) in botany, Dr. Sturges in materia medica, and Dr. Cheadle or Dr. Charlton Bastian in pathology. The chair of physiology is as yet undecided. We hope that with such an organisation the female students of medicine will be able to prosecute their studies quietly; the list submitted to the public, if correct, is a sufficient guarantee that they will have abundant opportunity of doing so successfully if their capabilities for scientific work are at all proportionate to their ability in arousing and sustaining public excitement.

## THE CHAIR OF PHYSIOLOGY IN THE UNIVERSITY OF EDINBURGH.

The election of Dr. Rutherford to the chair of Institutes of Medicine or Physiology in the University of Edinburgh sets us free from that restraint which we have studiously imposed on ourselves in speaking of the candidates for this important post. At an early period in the history of the contest we felt it our duty to speak out with regard to the system of testimonial-begging and publishing, which seemed growing with each subsequent election in the University; but in so doing we were careful to avoid anything like personality—the more so as the three chief candidates are highly esteemed by us, both as gentlemen and men of science. Of Professor Cleland, of Galway, we have no desire to say a single disparaging word. But his work has been almost purely anatomical; his training has been in the same direction; and it would have been a great pity to transfer a man well fitted for one kind of post to another for which he had no special aptitude.

Of the other three—Professor Rutherford, Dr. McKendrick, and Dr. Pettigrew—we can only say that any one of them would have filled the chair most worthily. Dr. Rutherford was formerly Professor Bennett's assistant, and displayed such skill in teaching and such mastery of his subject as to secure his appointment almost without opposition at King's College, here in London, on the resignation of Dr. Beale. This early omen has not been disappointed, and Dr. Rutherford has turned out one of the ablest teachers of physiology of the day; and he will carry back with him to the North the hearty goodwill of all his associates and companions.

Of Dr. McKendrick we hardly dare trust ourselves to speak as we could wish. A most amiable and kind-hearted man, he had thrown himself heart and soul into the work of teaching physiology. He had given up all private practice, and had begun original work of the most promising kind. He had staked much, very much, on the chance of election to the vacant chair, and he has lost. For the man we feel the deepest commiseration; the fruits of some of the best years of his life have been thrown away, and he has in a certain sense to begin the world again. Moreover, if we are rightly informed, he will feel it his duty to his family to turn from the pursuits of science to what may be looked upon as the humbler but necessary task of bread-winning, and thus an earnest, honest, and able investigator of nature will in a certain sense be lost to us.

Dr. Pettigrew is hardly in the same position. He, too, has staked much, but not so much as Dr. McKendrick. He is, moreover, less burdened with those ties which necessitate Dr. McKendrick to turn elsewhere. Looked upon by many as the most original thinker of the day, as far as animal mechanics are concerned, he has no reason to despair of the future which

will yet open up before him. The only thing to be regretted, to our mind, is that there was not a chair for each.

As Dr. Rutherford's transfer leaves the chair of Physiology at King's College vacant, we have heard it rumoured that it will probably be filled by Dr. Ferrier, who has already filled the post of Demonstrator of Physiology there; and no better selection could be made. The post of Assistant-Physician, also rendered vacant, will probably be filled by either Dr. Curnow or Dr. Baxter.

## THE WEEK.

### TOPICS OF THE DAY.

A JUDGMENT has recently been confirmed by the Court of Appeal at Brussels, which was given against Dr. Campenbout for supplying his patients during three years with homœopathic medicines. A law of 1818 appears to have been the basis of this confirmation, by which a medical practitioner is forbidden to practise pharmacy together with medicine, except in certain cases, although he possesses the diploma of Doctor of Pharmacy; neither is he permitted, even gratuitously, to supply medicines.

The active measures adopted to ameliorate the sanitary condition of the Wandsworth district by the Local Board of Works, as shown by their eighteenth annual report, ending March last, is very satisfactory. Many complaints of nuisances have been brought before the Board during the past year, nearly all of which have been effectually dealt with. The satisfactory result of the steps taken by the Board in dealing with cases of adulteration of food is evidenced by Dr. Muter's (their analyst) last report. Out of 180 samples submitted to him for analysis, only five were proved to be adulterated Dr. Muter concludes his report by remarking that, so far as he can learn, he believes the above figures prove that the district, notwithstanding its great extent, was at that moment in the position to take the credit of supplying the purest food in London to its inhabitants, which is no doubt due to the vigorous inspections of their officer and the watchful care exercised by themselves as a body over his proceedings. It is certain that in Wandsworth, at all events, the Act has not by any means proved a dead letter.

The Board of Guardians of Lambeth are under the impression that advantages would accrue to the ratepayers if the medical officers of the parish were paid simply by salary, and not by salary and fees. It would appear that the Board attribute the removal of some persons to lunatic asylums, who could be well kept in the workhouse, to the payment of the certificate fees. This, we think, is a mistake, but it would be well to remove any cause of suspicion. The Guardians, therefore, had an interview on Tuesday with the President of the Local Government Board at Whitehall, to obtain his sanction to their payment by salary only. After some discussion the President said that it was a very serious question, and the Local Government Board felt that there were serious difficulties in the way of paying medical officers entirely by salary. However, it seemed that the Lambeth Guardians wished to know how they could advertise for a medical officer in accordance with their desire to pay him by salary only. He could only state that if the guardians would frame a form of advertisement for that purpose, and send it to them, it should have their immediate attention; but of course he could not state what the result would be.

The quarterly return of the health of Ireland for April, May, and June last shows there were registered 24,128 deaths, representing an annual mortality of 18·2 per 1000. In the same period (according to the returns of the enumerators at the several Irish seaports) 34,317 persons emigrated. The death-rate was slightly over the average for the second quarter of the preceding five years. The deaths from the principal preventable diseases, which are equal in number to those in the second quarter of 1873, show a decline of 5 per cent. as compared with the first quarter of this year. There was but slight diminution in the total mortality from scarlet fever; the decrease in the province of Munster continued through last quarter, but there was a further increase in the deaths from this disease in Leinster and Ulster. The deaths from small-pox numbered 123, against 141 in the first three months of the year, and 220 in the corresponding three months of 1873. Of the baneful practice of inoculation, the Registrar of the Dunkineely District, Donegal Union, has furnished the following report:—

"It is a sad reflection which I think it my duty to mention —viz., that the six cases of death from small-pox recorded, and which were of the ages respectively of twelve, twelve, eleven, seventeen, sixteen, fourteen (not merely infants), were inflicted and caused by the hand of man, under the vile practice of inoculation, which has been extensively carried on in these more remote and backward parts of our country, and which, it seems to me, the law as it stands is powerless to prevent, requiring as it does the conviction of the person or persons who did the inoculation; whereas, if the law were modified to this extent, simply to hold the parents or guardians of the child—the parties really guilty of the violation of the law—responsible to the laws on simply seeing the evidence of inoculation, by whomsoever done, the efficiency of the law, I cannot but suppose, would soon be apparent."

Dunkineely is not the only district in Ireland where inoculation is practised; the Registrar of Mountcharles District, Donegal Union, in his report for the first quarter of the year, refers to cases of small-pox of the confluent form resulting from inoculation.

There is some reason to suspect that lunacy is more rapidly increasing than is generally supposed. The difficulties arising from the want of provision in public lunatic asylums adequate to meet the increased number of insane patients is beginning to be seriously felt. An application from the superintendent of a private asylum for the removal to a public one of a young woman belonging to the parish of Islington, a lunatic, on account of her being unmanageable, came before the guardians of Islington at their meeting last week, when Mr. Hicks, the clerk, remarked they were in a fix never contemplated by the Act of Parliament, for places to which lunatics could be sent were not to be had; the county asylums were all full, and the private asylums nearly always full. They would soon be in a greater fix, and be totally unable to find any asylums to which they could send their lunatics.

The advisability of instituting a complete survey of the sanitary condition of the whole city of Worcester was suggested at the latter end of last year by Dr. William Strange, the Medical Officer of Health, to the Sanitary Authority of the city. The object in view was that the survey should form a reliable register of the sanitary condition of every house in the city, which would facilitate reference to suspected localities, and form the basis for future structural ameliorations. This survey has been made. It occupied six months, and was completed in June last. Over 7500 houses and premises were surveyed by the inspector. Out of a total of 7094 inhabited houses 815 were found to be in an insanitary condition detrimental to health. The nature of the sanitary defects comprises overcrowding, bad structural arrangements as to air and ventilation and the means of cleanliness and common decency, and dilapidated and unwholesome houses scarcely fit for habitation. Worcester, as regards situation, soil, and employment of its people, is not an unhealthy town in the common acceptation of that term. From the result of inquiries, Dr. Strange judges the death-rate in former years to have ranged between 24 and 25 per 1000 living; but he finds it difficult to ascertain the exact

death-rate of the city for such a term of years as would give data broad enough to be relied upon for an accurate comparison with the health-condition of other similar towns. The means now being taken will afford that desideratum for the future. The remedial measures to be undertaken for the improvement of the sanitary state of the city, Dr. Strange, in his special report to the authorities last month, points out with great clearness and detail. The data and facts obtained from this careful and extensive survey must be of great utility, and give facility to the prosecution of further sanitary measures. Dr. Strange has set an example towards the eradication of the primary causes of much preventable disease in the city which should be generally followed.

The veterans of the Peninsula, both "combatant" and medical, are fast dying out. The newspapers announce the death of Dr. Matthias Kenny, at his residence, Monkstown, Dublin, in his eighty-eighth year. Dr. Kenny took part in the Peninsular War, and was present at the Battle of Waterloo. He served in the Royal Artillery, and his appointment as Assistant-Surgeon in the Army was dated December, 1840. He had the Waterloo Medal.

Mr. Spurgeon has been attacked by some fanatics against tobacco-smoking, in consequence of his candid avowal respecting his occasional use of a cigar. We pass by the charge urged against him on the ground that by so doing he was living in a continual state of sin. We had hoped that the controversy respecting the use of tobacco, in all its aspects, had at length been confined to reasonable limits, and were scarcely prepared for such an indecent and unfounded aspersion against a man who had done so much good for his fellow-countrymen. Mr. Spurgeon possesses, amongst other excellent qualities, strong common sense, and we quote his answer to the charge brought against him, because it places the question on a fair and unquestionable basis. In a letter to a contemporary, Mr. Spurgeon says—

"I demur altogether, and most positively, to the statement that to smoke tobacco is in itself a sin. It may become so, as any other indifferent action may; but as an action it is no sin. Together with hundreds of thousands of my fellow-Christians I have smoked, and with them I am under the condemnation of living in habitual sin, if certain accusers are to be believed. As I would not knowingly live even in the smallest violation of the law of God, and sin in the transgression of the law, I will not own to sin when I am not conscious of it. There is growing up in society a Pharisaic system which adds to the commands of God the precepts of men; to that system I will not yield for an hour. The preservation of my liberty may bring upon me the upraidings of many of the good, and the sneers of the self-righteous; but I shall endure both with serenity, so long as I feel clear in my conscience before God.

"The expression 'smoking to the glory of God' standing alone has an ill sound, and I do not justify it; but in the sense in which I employed it I still stand to it. No Christian should do anything in which he cannot glorify God—and this may be done, according to Scripture, in eating and drinking, and the common actions of life. When I have found intense pain relieved, a weary brain soothed, and calm, refreshing sleep obtained by a cigar, I have felt grateful to God, and have blessed His name. This is what I meant, and by no means did I use sacred words triflingly. If through smoking I had wasted an hour of my time—if I had stinted my gifts to the poor—if I had rendered my mind less vigorous—I trust I should see my fault and turn from it; but he who charges me with these things shall have no answer but my forgiveness."

How many thousands of good men are in a position to endorse the reverend gentleman's experience? We have as strong an objection to excessive tobacco-smoking as possible. But looking upon its moderate use as a solace, a comfort, and a support, we think Mr. Spurgeon has done a good service to society by his sensible and manful protest.

At an inquest held at Camden Town, on Tuesday, on the body of Mary Amelia Bevan, aged fifteen, the daughter of a cabinet-maker, evidence was given that deceased had been unwell for some days, and the relieving officer sent the district physician to attend her, but her father alleged that he was a homœopathist, and declined the assistance offered, the consequence being that she expired from rupture of a blood-vessel on the lungs, brought on by consumption. The jury returned a verdict accordingly, adding that the death was accelerated by want of intelligence on the part of the father of the deceased.

### PURE WATER.

The microscopic examination of water has not had the attention nor been adopted to the extent its importance deserves. Essential as it is to know the chemical quality of waters, a concurrently conducted microscopical examination is equally necessary to enable a correct judgment to be formed as to their wholesomeness and freedom from pollution. A very interesting pamphlet on a microscopical examination of certain waters submitted to Mr. Jabez Hogg, and a chemical analysis by Mr. Dugald Campbell, with introductory notes by Mr. S. C. Homersham, contains valuable statistics, data, and information on this subject. It appears that the late Royal Commissioners altogether ignored the aid of the microscope to assist them in coming to reliable conclusions upon the character and wholesomeness of the numerous and different waters that came under their notice. In consequence, many of the conclusions in their report, founded as they were proved to be upon insufficient data, can only be regarded by those more fully informed as containing grave inaccuracies. It cannot, says Mr. Homersham, be too widely known that uncontaminated deep spring or subterranean water, so abundantly, so readily, and so cheaply obtainable from copious stores treasured up in capacious natural reservoirs, is found free from all living vegetable or animal productions, and from all putrescible organic matter. We endorse Mr. Jabez Hogg's remark that we must all hope to see the time when our towns, ceasing to be supplied with the waters of rivers or lakes, will derive their drinking-water wholly from deep springs.

### HOSPITAL SATURDAY.

The Hospital Saturday, originally intended, as we understood, to be purely a working men's affair, is entering on a new phase. We have already had occasion to warn the medical public that its consequences might be not quite so satisfactory as at first sight they seemed. There are too many complaints abroad now of working men well able to pay for medical relief obtaining it under false pretences from hospitals. How will matters stand when they can come and demand it as a right? Moreover, some of the names on the committee are particularly objectionable to respectable practitioners. But now matters are taking even a worse aspect. We are told of a Crystal Palace *fête*, and we see boys in a kind of uniform touting for alms in the public streets! Are these appeals to working men, or to whom?

### THE NORWICH ACCIDENT.

Two more deaths have followed from the results of the Norwich accident, raising the total number to twenty-five. One of the deaths, however, may in part be laid at the door of the Norwich Hospital, for the immediate cause of it was pyæmia, for which this Hospital has now so ominous a reputation. A little girl named Elizabeth Clarke, daughter of a ticket collector at Ely, is in a very bad state at the same Hospital, having sustained an injury of the brain. Miss Ramsdale is still lying in a very unsatisfactory state at Thorpe. Many other persons are suffering from the shock sustained by their nervous system in the collision.

### ADULTERATED BRANDY.

An innkeeper of Yeovil has been fined £2 and costs for selling adulterated brandy. The certificate of the public analyst

showed that the adulteration consisted of tannic acid, iron, sugar, and colouring, and that the consumption of such an article would be injurious to health. It was contended for the defence that it was an article not fit to be sold in its raw state, and that it was well known that manufacturers "used sundry devices for making it palatable." The defendant had paid 25s. a gallon for what he considered a pure article.

### HUNTERIAN SOCIETY.

The meetings of the Hunterian Society will now take place on the second and fourth Wednesdays of the winter months (instead of Thursday, as heretofore). The first meeting will be held at the London Institution on Wednesday, October 14, at 8 p.m., when Dr. B. W. Richardson, F.R.S., will read a paper on "The Pathological results of Pectous Change in Colloidal Structures." Visitors are invited to take part in the discussion.

## THE VACCINATION ACT.

The following is the text of the Vaccination Act, 1874:—

"Whereas, by Section 5 of the Vaccinatiou Act, 1871, it is enacted, amongst other things, that, subject to the provisions of that Act, the Local Government Board shall have the same powers with respect to guardians and vaccination officers in matters relating to vaccination as they have with respect to guardians and officers of guardians in matters relating to the relief of the poor, and may make rules, orders, and regulations accordingly:

"And whereas doubts are entertained whether the Local Government Board are empowered under the said Act to make rules, orders, and regulations with respect to the proceedings to be takeu by the guardians or their officers for the enforcement of the provisions of the Vaccination Acts, 1867 and 1871:

"Be it therefore enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

"The powers conferred by the said recited section shall be deemed to extend to and include the making of rules, orders, and regulations prescribing the duties of guardians and their officers in relation to the institution and conduct of the proceedings to be taken for enforcing the provisions of the said Acts, and the payment of the costs and expenses relating thereto, and rules, orders, and regulations under this Act shall be deemed to be made under the said section."

## FROM ABROAD.

### Treatment of Fractures of the Femur by the Plaster-of-Paris Roller.

Professor Hamilton prefaces an account (*New York Medical Journal*, August) of several cases which he has treated by this method by some general remarks of interest. He observes that Seutin's starch bandage, which was at one time so much in vogue, has of late years almost gone out of use. This he thinks is in great measure due to the frequency of the accidents which ensued on its employment, such as the production of gangrene, ulceration, and delayed or deformed union. The disfavour becamc so considerable that an improved procedure invented by Mathiessen, which consisted in the employment of a roller with dry plaster of Paris, that on application became a fixed apparatus, failed to meet with any favour in the Unitcd States. Of late, however, a race of surgeons has arisen, who, having had no experience of the mischief often induced by the immovable apparatus of former days, have of late years revived its use. This seems to have been especially the case at the Bellevue Hospital, and several papers have been of late years published in the American journals, chronicling the great success that has been obtained, union being attended with little or no shortening. These statements Prof. Hamilton believes are not without their danger, and he refers to a curious fact in American medical history. Some twenty-five years ago nothing was more common in that country than for actions to bc brought for malpraxis, and often so unjustly that we have heard that it was not an unusual occurrence for a surgeon of repute to refuse to undertake the treatment of an important casc unless guaranteed from any such annoyance. Professor Hamilton, indeed, says that at one time there was scarcely a respectable surgeon in the country who had not been prosecuted one or morc times. It seems that this in a great measure arose with regard to the treatment of fractures, from a very general opinion prevailing in the profession, and especially with the public, that in skilful hands all fractures could be made to unite without shortening or deformity. This delusion Prof. Hamilton was the means of dissipating, by publishing the results of many hundreds of cases which he had most carefully examined. The testimony was so conclusive that from that time (1849-57) prosecutions of this character have ceased to harass the profession.

Bearing this in mind, Prof. Hamilton sees some danger of the old state of things being revived when statements are so frequently published that by this improved method of treatment such surprising results may be obtained, it being inferred that those who fail to obtain such have not done justice to their patients. He is convinced that these statements are greatly exaggerated, and that this requires to be pointed out. "Probably the same thing will have to be done as often as once in twenty-five years in the future, if surgeons intend to continue the practice of this unremuncrative and dangerous department of our art. The service I havc undertaken is not an agrecable one, since it necessarily opens the question whether the sanguine hopes of my brethren are in all respects justifiable. But it is a duty which I shall not hesitate to perform to the extent of my ability and means." He commences with fractures of the thigh, and reports in this communication six cases of patients eighteen years and under treated by thc plaster-of-Paris bandage, and twenty cases occurring in patients above eighteen years of age. In all of these, with one exception, shortening took place, varying from three-eighths of an inch to two inches, the average in nineteen of the adult cases being more than three-quarters of an inch. As some explauation of the discrepancy of these results with those that have been published by his colleagues from the same hospital, he suggests that these reporters do not profess to have measured the limbs themselves, which he has always been most careful iu doing. As upon the exact performance of this measurement thc correctness of the conclusion so much depends, we subjoin Prof. Hamilton's rules for this:—

"The fact that a man walks without a halt is no evidence that there is no shortening of the limb. In this respect patients are very unequal. One having a shortening of only half or three-quarters of an inch will limp perceptibly, while another with a shortening of an inch, or eveu an inch and a half, may not limp at all. This has been observed repeatedly. Nor is it any evidence that the limb is not shortened because, while lying in bed, the heel of the broken limb can be brought down to the level of the other. By pitching the pelvis, the spine remaining erect, the heel may be made to descend, in most persons, two inches or more.

"Measurements made from the symphysis pubis, or from the round end of the anterior superior spinous process, are unreliable. The patient should repose upon his back, upou an even surface, with his lower extremities as nearly as possible iu a line with the axis of his body, the two wings of the pelvis being in the same transverse horizontal line. A flexible graduated tape-line is to be preferred to the steel tape-measure. Thc foot being steadied by an assistant, the surgeon should put his thumb-nail against the linc where it joins the ring, and push his nail into the skin just *below* the anterior superior spinous process, pressing firmly up and back, the back of his nail resting upon the skin. In this way he obtains a fixed point, and he can obtain an exactly corresponding point upon the opposite side. Below, the measurement may be made from either malleolus, but the outer has the most defined extremity. In most cases, for some months after the close of the treatment, there is some œdema about the ankle, which renders it necessary to use great care in determining the point of the malleolus. The thumb-nail of the opposite hand may be used for this purpose—resting vertically upon the skin—flat against thc lower end of the malleolus. There are a few sources of error that cannot be avoided. Occasionally, but very rarely indced, the malleoli of the two limbs are of unequal length; and, in

a few very rare cases, one limb is congenitally, or from defective growth, shorter than the other."

As a supplement to this communication, Prof. Hamilton furnishes notes of nine unselected cases treated by his own method (side-splints, adhesive plaster, extension, and pulley and weight) in which the results obtained were far more favourable. Of four of the cases under eighteen there was no shortening in three, and only two-eighths of an inch in one. In five cases above eighteen, the shortening varied from three-eighths to one inch. To abandon this method, which is simple in practice and unattended with the accidents which sometimes are met with in the plaster-of-Paris treatment, in favour of this latter would be to make a retrograde step.

### Secondary Traumatic Neuralgia.

At one of the meetings of the Medical Section of the French Association, recently held at Lille, M. Verneuil drew attention to a complication sometimes met with in wounds, which, without being very serious in its nature, yet is the cause of much suffering to the patient and capable of delaying the process of healing. It consists in more or less severe pains felt in the wound itself and its vicinity, sometimes extending to a great distance, coming on a few days after the injury, and assuming an intermittent neuralgic character. They resist antiphlogistic and narcotic treatment, and yield readily to quinine. The pains usually come on suddenly without obvious cause, and once developed they may become continuous or remittent, but usually take on the form of quotidian intermittent. Concurrently with these, there may be sometimes observed contractions or a kind of powerlessness of the muscles, generally confined to the segments which are nearest the wound; as also vascular disturbances, which seem closely connected with the existence of the local pain, and which sometimes lead to the production of secondary hæmorrhage. The surface of the wound sometimes retains its normal character, sometimes presents a diphtheroid aspect, and at others is the seat of phlegmonous inflammation. These changes are dependent on the neuralgia, as they very rapidly yield after the administration of the quinine. The details of the cases observed throw no light on the pathological character of any local changes that may have taken place, but they show that the production of this neuralgia is in intimate connexion with the prior state of health and diathesic and moral conditions of those who become subject to it. The appreciation of these readily leads to its diagnosis and successful treatment.

### The Hot Bath in Russia.

From some interesting letters from M. Bonnafont (published in the *Union Médicale*), written on the occasion of a northern tour which he took in connexion with a visit to Stockholm during the sittings of the Prehistoric Congress, we transcribe an amusing account of his experience of a Russian bath. After undressing in a large room supplied with comfortable divans—

"An attendant conducts you into the public bathing-room, divided into many compartments, the divans being replaced by plank seats. The temperature might be from 30° to 35° Cent., and the place resembled an immense wash-house. Having made you sit down, the bathman soon arrives with a bucket of water a little more than tepid, which he pours over your head, and then a second with warmer water, followed by a third and fourth, the water now being of an insupportable temperature. Inundated by these successive douches, and by the sweat which issues from every pore, one feels suffocated and unable to see anything, so thick is the vapour. The attendant, after some frictions of the neck and shoulders, makes you lie down on your back, and having plastered your body with a layer of soap, dashes over a bucket or two of scalding-hot water. This done, having armed his hands with a bundle of dried plants, he rubs, or rather scrapes, the skin from above downwards, the lather which is formed during his exertions giving you very much the appearance of a parcel of soiled linen in the washing-tub. During this operation, which is a true torture, your executioner overlooks no fold or recess of your body whence impurity can be dislodged. When he considers you as sufficiently scraped, he makes you turn round and lie upon your belly, and in order to spare your chin he furnishes you with a large bundle of the same dried plants with which he performs the frictions—anything but a comfortable cushion, I can assure you. A repetition of the same soaping, the same frictions, and the same torture, especially when he comes to the soles of the feet, and more so if you are ticklish. As for me, who am so to excess, I struggled, and even cried out; but nothing was of any use. With one hand he held the foot firmly, while with the other he rubbed on without ever heeding my impatience. But when he got between the toes I was seized with such a fit of impatience or rage, that, with the foot which remained at liberty, I planted such a kick on his arm that he let go his hold of the other, and with one bound I was on my seat again. The bathman, remaining quite impassible, as if accustomed to such incidents, threw a pail of hot-water over my head, and with his hands full of lather soaped it with the same vigour that he had employed on the rest of the body, neglecting not even the ears. After washing off the foam which inundated me by means of three or four pails of scalding-hot water, he submitted me to manipulations (*massage*) which I found very agreeable. With a perfect knowledge of the course of each muscle, he performed with his bare hands frictions and compressions which were most adroitly executed; and, in order to get command over all the muscles, he made the limbs execute the movements necessary to bring them into prominence.

"After these different operations I believed that all was finished; but the bathman took me by the hand in order to lead me into an adjoining room. As I resisted, my companion, who had been laughing during all my time of torture, persuaded me to submit, and I soon found myself in the *sudarium*, with a temperature of 90° C. at the least. I tried all I could to support this roasting trial, but when the attendant wished me to mount five or six steps and lie down again, in order to receive another douche of perhaps boiling water, I resisted, and by the intervention of my friend escaped this trial. I left the room deluged with sweat, and as red as a boiled lobster, but found that all was not even yet finished, for I was placed under a hydro-therapeical apparatus, which played over me both horizontal and vertical douches. These, which were at first very hot and insupportable, slowly and very gradually were reduced in temperature until this was diminished to near zero. Several times I tried to get from this infernal cage, but the pitiless Cerberus who guarded me would not let me escape any phase of this douche, which, after roasting my skin, well-nigh froze it. The bath, if we can designate by this name the trials I had gone through, terminated with a large pool of cold water, in which one might enjoy the pleasure of swimming. Glad would I have been to have accepted this at the beginning, but I was completely saturated, and hastened out of these infernal regions. Another attendant appeared to dry me with towels, and then covered me with a woollen garment. I only rested for half an hour, as we were in a hurry; but most of the bathers remained a much longer time, taking tea and smoking cigars, some lying down, and others walking about, or paying visits to their neighbours, all in a state of primitive costume."

## OBITUARY.

### ARTHUR JACOB, M.D., F.R.C.S.I., etc.

With deep regret will the members of our profession in all parts of the Empire read the announcement of the death, on the 21st ultimo, of Arthur Jacob, full of years and honours, one of the most distinguished representatives of the School of Surgery in Ireland in the past generation, and the possessor of a cosmopolitan renown for original research and literary attainments. Born on June 13, 1790, at Knockfin, near Maryborough, in the Queen's County, Arthur Jacob came of a good old stock. He was son of John Jacob, Surgeon to the Queen's County Infirmary, and grandson of Michael Jacob, a surgeon at Ballinahill, while as senior lineal representative of an old Cambridgeshire family, who settled in Ireland in 1667, he could claim England as well as Ireland as his native country.

When about eighteen years of age, young Jacob came to Dublin, and served his apprenticeship to the celebrated Mr. Abraham Colles at Steevens' Hospital. Having finished his student career, and graduated as M.D. in the University of Edinburgh in 1814, Jacob set out on a walking tour through the principal towns of the United Kingdom, during which he travelled 960 miles within six weeks. He then walked from London to Dover, crossed the Straits, and walked to Paris, where he studied for some time, until the return of Bonaparte from Elba obliged him to quit the shores of France.

He subsequently pursued his studies in London, attending the *cliniques* of Sir B. Brodie, Sir A. Cooper, and Sir W.

Lawrence. With all these illustrious men he contracted an intimate acquaintance, which continued through life. It was not until 1819, at the age of twenty-nine, that Jacob returned to Dublin, and became Demonstrator of Anatomy under Dr. Macartney at Trinity College. Here he still pursued his studies, gaining for himself a great anatomical name, and collecting a valuable museum. This museum Macartney, in a huff with the Board of Trinity College, afterwards sold to Cambridge University, where it remains at present.

On leaving Macartney, Jacob joined with Graves, Marsh, Cusack, and Hart in founding the Park-street School of Medicine, which for many years enjoyed a deserved reputation, as well it might under the directorship of such men. His attainments now enabled him to reap a well-earned harvest of fame, and in 1826 he was elected Professor of Anatomy in the Royal College of Surgeons. This chair he continued to hold until 1869, being in the interim three times chosen President of the College, and for a quarter of a century sitting upon its Council as one of its most active members.

In 1832, Jacob, in conjunction with Charles Benson, Robert Harrison, James Apjohn, Thomas E. Beatty, and Houston, established the City of Dublin Hospital, he himself being the originator and active mind in the matter. The Irish school was at this time sadly in want of sufficient representation in the press, and accordingly, in 1839, Jacob joined with Dr. Maunsell (now editor of the *Dublin Morning and Evening Mail* newspaper) in starting the *Medical Press*, a weekly journal of medical science. But his useful life was not yet over; for he afterwards became the colleague of Kingsley, Carmichael, and other philanthropic members of the profession in the founding of the Royal Medical Benevolent Fund Society of Ireland. With the same coadjutors he also aided in establishing the Irish Medical Association.

With the lapse of time Jacob entered upon a green old age, and at seventy-nine years finally retired from the active pursuit of his profession. Five years spent in peaceful retirement closed his honourable and useful life.

Jacob's fame will rest chiefly upon his anatomical and ophthalmological discoveries. At the age of twenty-eight, in 1819, he discovered the "membrana Jacobi," an account of which was published in the *Philosophical Transactions* for that year. He subsequently described "Jacob's ulcer," and revived the operation for cataract through the cornea with the curved needle. His literary contributions were both numerous and valuable. In 1845 he published a series of anatomical, zoological, and miscellaneous essays; in 1850 he wrote on the Inflammations of the Eyeball, and in 1851 on Cataract. To the "Cyclopædia of Anatomy" he contributed an article on the "Eye"; to the "Cyclopædia of Practical Medicine" treatises on "Ophthalmia" and "Amaurosis." These are but a few of the productions of his pen. In many ways his brethren testified their esteem for him. He received, as we have said, the honour of being thrice elected President of his College. In 1860, a medal bearing his likeness was struck and presented to him; and his portrait, bust, and library are now placed in the Royal College of Surgeons, Ireland.

## MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 24 :—

Bell, John Duncombe, Antigua, West Indies.
Gallimore, Thomas, Infirmary, Chester.
Haslam, William Doidge, Redhill, Surrey.
Steward, Alfred, Newtonheath, Manchester.
Southam, John Binns, St. George's-road, Bolton.
Towt, George Frederick Ewens, Crewkerne, Somerset.

The following gentlemen also on the same day passed their primary professional examination :—

Clegg, John Hague, St. Bartholomew's Hospital.
Dutton, Edward George, Guy's Hospital.
Scott, Alexander Thomas, Middlesex Hospital.

At the Preliminary Examination in Arts held at the Hall on September 25 and 26, 124 candidates presented themselves, of whom 34 were rejected, and the following 90 passed, and received certificates of proficiency in general education :—

In the first class, in order of merit :—

First: Z. Mennell. Second: F. J. Butler and Henry Pearce. Fourth: T. F. P. Adolphus, T. H. May, H. F. Stokes, and T. S. Tuke. Eighth: T. A. Appleton, James Harrison, M. G. C. Hoskins, P. Peacock, S. C. B. Robinson, A. Weakley, W. Whitworth, and F. W. Woodman. Sixteenth: W. H. S. Mackay and N. Rushworth. Eighteenth: W. J. Clarke, H. H. F. Eden, A. S. Mackrell and T. P. Pemberton. Twenty-second: W. S. Battis, B. Gilchrist and C. A. Hebbert. Twenty-fifth: T. A. Evans, H. D. Mackay, I. W. Payne, and G. Stevenson.

In the second class, in alphabetical order :—

John Allnutt, A. E. Benthall, R. C. Birch, Herbert Blott, C. A. Bloxsome, T. Bushby, C. Collett, G. W. Collins, H. L. Curtis, Arthur Cross, I. H. W. Davies, R. A. Davis, L. Dresser, Ernest W. Edwards, A. G. S. Findlay, W. H. R. Forsbrook, B. H. J. Gardiner, Alfred Gibson, E. Godson, W. R. Gould, F. Gravely, Ernest Grey, W. C. Guthrie, M. H. Hale, W. H. Hall, F. A. Harris, U. A. Carpenter Harris, L. R. Heyland, P. H. Hogg, T. Hopps, H. J. R. Hosford, W. H. Iorns, E. M. Knapp, A. W. Knight, I. A. Langley, J. Lofthouse, J. S. McDonagh, Arthur Manners, A. Mantle, T. H. Morse, H. J. Palmer, A. B. Payne, G. L. Pardington, F. Parish, Ernest Rawson, G. A. Roper, A. E. Rowcroft, F. M. G. Smith, H. R. Spackman, J. W. A. Steel, Charles Edward Steele, J. McDougal Stewart, J. Sutcliffe, Edgar Taylor, Charles Molesworth Tuke, George Rayleigh Vicars, Henry Wakley, Laurence N. Walker, William Sparrow Watson, Alfred G. Wells, William Frederick West, and Miles Melbourne Williams.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Armstrong, Henry George, M.R.C.S., L.S.A.—House-Surgeon to the Royal Berks Hospital, Reading, *vice* R. Galpin resigned.

Shaw, Robert, M.B., C.M., L.M.—Parochial Medical Officer and Public Vaccinator for Dailly Ayrshire, *vice* Dr. William Hunter, resigned.

White, Wm. Leavens, M.B., C.M., L.S.A.—House-Surgeon and Superintendent to the Southport Convalescent Hospital and Sea-bathing Infirmary, *vice* R. M. Craven, L.R.C.P.E., M.R.C.S. Eng., resigned.

### NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—W. Redmond, Staff Surgeon, Second Class, to the *Daring*.

War Office—Medical Department.—Surgeon-Major Patrick Andrew M'Dermott and Surgeon-Major George Allan Hutton retire upon temporary half-pay; Surgeon Usher Beere Eaton, M.D., half-pay, resigns his commission; Lieutenant of Orderlies William Ward (Army Hospital Corps) to be Captain of Orderlies, *vice* Saville, retired upon half-pay; Sergeant Thomas Thompson (Army Hospital Corps) to be Lieutenant of Orderlies, *vice* Ward, promoted.

### BIRTHS.

Bingham.—On September 17, at Church-street, Alfreton, the wife of J. J. Bingham, M.R.C.S., of a son.

Brice.—On September 24, at Glencoe Villa, Southsea, the wife of Frederick A. Brice, L.K.Q.C.P.I., L.R.C.S.I., Staff-Surgeon H.M.S. *Devastation*, of a daughter.

Gill.—On September 25, at St. Philip's-road, Sheffield, the wife of W. Gill, L.R.C.P., M.R.C.S. Eng., of a daughter.

Simpson.—On September 21, at 52, Queen-street, Edinburgh, the wife of Professor Simpson, M.D., of a son.

Tomkins —On September 26, at Beddington, Surrey, the wife of C. P. Tomkins, L.K.Q.C.P.I., M.R.C.S. Eng., of a son.

Tuzo.—On September 15, at Staten Island, New York, the wife of Henry A. Tuzo, M.D., of a son.

### MARRIAGES.

Bartlett—Mills.—On September 23, at St. Mary Magdalen Church, St. Leonard's-on-Sea, James Prime Bartlett, son of the late William Bartlett, F.R.C.S., of Ladbroke-square, to Amy Emmaline Strange, eldest daughter of J. H. Mills, Esq., of Stratford-place, Camden-square.

Buchanan—Malcolm.—On September 9, at 126, George-street, Edinburgh, James Buchanan, Esq., Bath, to Eleanor Bowes, elder daughter of Robert Bowes Malcolm, M.D., F.R.S.E.

Gimson—Elliot.—On September 21, at Townstall Church, Dartmouth, Herbert Thomas Gimson, Navg.-Lieut. R.N. of H.M.S. *Immortalité*, third son of the late Joseph Gimson, Esq., of Eastbourne, to Blanche, eldest daughter of S. N. Elliot, M.R.C.S. Eng., L.S.A., of Mount Galpine, Dartmouth.

Hitch—Willes.—On September 23, at the parish church, Henley-on-Thames, Samuel Hitch, Esq., late of Southwick-park, Tewkesbury, to Letitia Anne Willes, of Silver-hill, St. Leonard's, eldest daughter of the late Thomas Gibson Willes, F.R.C.S., of Ixworth, Suffolk.

Karslake—Wood.—On September 29, at the parish church of St. Marylebone, W. Lewis, youngest son of the late Henry Karslake, Esq., to Agnes Mary, third daughter of Wm. Wood, M.D., of 99, Harley-street, W., and The Priory, Roehamptom.

Lund—Macann.—On September 24, at St. James's, Spanish-place, Frederic Charles Lund, son of W. Lund, Esq., of Haverstock Lodge, Hampstead, to Mary Josephine, only daughter of the late Arthur Macann, M.R.C.S., of King-street, Portman-square, W.

Steven—Jacobson.—On September 29, at St. George's, Hanover-square, Alexander Steven, M.D., son of the late James Steven, Esq., Glen-park, Port Glasgow, to Alice Woolf, second daughter of N. W. Jacobson, Esq

### DEATHS.

Chuckerbutty, Soorgo-Coomar Goodeve, M.D. Lond., M.R.C.S., Surgeon-Major, Bengal Army, Professor of Materia Medica and Clinical Medicine at the Medical College, Calcutta, at 72, Abingdon-road, Kensington, on September 29, aged 48.

Hare, Mary Ann, widow of the late Samuel Hare, F.R.C.S., formerly of 9, Langham-place, W., at 27, Duke-street, Manchester-square, W., on September 26, in her 89th year.

HUNT, RICHARD THOMAS, M.R.C.S. Eng., L.S.A., late of Manchester, for nearly fifty years Surgeon to the Hospitals, and Lecturer on the Eye at the Medical Schools of Manchester, at Disley, Cheshire, on September 22, in his 72nd year.

MARTIN, ROBERT, M.D., at Heidelberg, Melbourne, Australia, on September 24, aged 79. (By telegram).

POWELL, ELIZABETH ANN, widow of the late James Chase Powell, M.R.C.S., at Ramsgate, Kent, on September 17, in her 71st year.

ROBSON, F. A. H., M.D., F.R.C.S. Eng., L.S.A., at Iver, Bucks, on September 21, in his 40th year.

WOOD, WILLIAM THOMAS, M.B. C.M., Edin., eldest son of Andrew Wood, M.D., at 9, Darnaway-street, Edinburgh, on September 28.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BEDFORD GENERAL INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Committee, on or before October 3.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered medical practitioners, and acquainted with the Welsh language. Applications, with testimonials, to the Secretary, on or before October 13.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—Resident Clinical Assistants. Applications, with testimonials, to the Secretary, on or before October 5.

KENT.—Analyst. Candidates must possess competent medical, chemical, and microscopical knowledge. Applications, with testimonials, to F. Russell, Esq.. Clerk of the Peace for Kent, Sessions-house, Maidstone, on or before October 12.

LANCASTER INFIRMARY AND DISPENSARY.—House-Surgeon. Applications, with testimonials, to the President, on or before October 12.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary at the Infirmary, Myrtle-street, Liverpool.

MARTLEY UNION.—District Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to A. W. Knott, Esq., solicitor, 14, Foregate-street, Worcester, on or before October 8.

NEWTON ABBOT UNION.—Medical Officer for District No. 9. Applications, with testimonials, to the Clerk of the Union, on or before October 13.

PARISH OF LAMBETH.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. B. Wilmot, Clerk, Guardians' Board-room and Offices, Pleasant-place, Brook-street, Kennington-road, S.E., on or before October 12.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY, RAMSGATE.—Resident Medical Officer. Candidates must be doubly qualified and registered. Applications, with testimonials, to the Secretary, on or before October 20.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, on or before October 8.

TUNBRIDGE WELLS DISPENSARY AND INFIRMARY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before October 14.

UNIVERSITY COLLEGE, LONDON.—Professor of Comparative Anatomy and Zoology. Applications, with testimonials, to John Robson, Esq., B.A., Secretary to the Council, on or before October 31.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to P. D. Bennett, Esq., Honorary Secretary, West Bromwich, on or before October 10.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Atherstone Union.*—Mr. John A. Lycett has resigned the Polesworth District; area 14,410; population 4763; salary £60 per annum.

*Martley Union.*—Mr. Thomas Markley has resigned the Leigh District; area 12,328; population 5837; salary £85 per annum.

### APPOINTMENTS.

*Easingwold Union.*—F. S. Gramshaw, L.A.H. Dub., to the Stillington District.

*Manchester Township.*—Walter Needham, L.F.P.& S. Glasg., M.R.C.S. Eng., L.S.A., as Senior Assistant Medical Officer at the Workhouse Hospital.

*Shepton Mallet Union.*—James T. Hyatt, M.R.C.S. Eng., L.R.C.P. Edin., to the First Division of the Third District; Carey P. Coombs, M.D. Lond., M.R.C.S. Eng., L.S.A., to the Second Division; and Edmund Heginbothom, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Third Division.

*Staines Union.*—Thomas C. Jones, M.R.C.S. Eng., to the Shepperton District.

*West Ward Union.*—John A. L. Ffoulkes, L.F.P.& S. Glasg., L.R.C.P. Ed., to the Patterdale District.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The annual registration of students pursuing their studies in this metropolis was commenced on Thursday last, and will be brought to a close on the 15th inst.

UNIVERSITY OF CAMBRIDGE.—PROFESSOR HUMPHRY'S LECTURES.—The Professor of Anatomy gives notice that the course of lectures on Practical Anatomy will commence on Thursday, October 8, at 9 a.m., and be continued daily. The course on Anatomy and Physiology will commence on Friday, October 23, at 1 p.m., and be continued on Tuesdays, Thursdays, and Saturdays at the same hour. This course is intended for students of natural science as well as for students of medicine, and gentlemen not requiring certificates are at liberty to attend without fee.

THE Town Council of Aberdeen have deferred the appointment of a public analyst in consequence of there being no suitable candidate, and in the expectation of an alteration in the Adulteration of Food Act in the ensuing session of Parliament.

FRACTURES.—During the wet season there is great destruction of property every year in Peking, and occasionally fractures of bones and even loss of life, caused by falling houses and walls. Attention was drawn in a former Report to the almost yearly loss of life by drowning in the public thoroughfares. At two fires that occurred lately, two apprentices were burnt to death. A patient, who met with a fracture of his left arm and right leg (tibia only) by a falling rafter, was brought to the hospital. After the application of the splints he was taken to a friend's house not far off, on the plea that he could be better attended to. He seemed, however, dissatisfied with the simple treatment followed. Upon visiting him a few days afterwards, I found the splints had been removed, and the usual panacea for all ills—a thick black viseid resinous plaster—substituted. Remonstrance was in vain; for I had failed to humour the national idea of treatment, by abstaining from plasters and pills, in order to show that they were not necessary.—*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN SEPTEMBER, 1874.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

| Names of Water Companies. | Total Solid Matter per Gallon. | Oxygen required by Organic Matter, &c. | Nitrogen. | | Hardness. | |
|---|---|---|---|---|---|---|
| | | | As Nitrates &c. | As Ammonia. | Before Boiling. | After Boiling. |
| *Thames Water Companies.* | Grains. | Grains. | Grains. | Grains. | Degs. | Degs. |
| Grand Junction | 16·97 | 0·057 | 0·146 | 0·002 | 13·8 | 3·3 |
| West Middlesex | 16·27 | 0·026 | 0·147 | 0·000 | 13·2 | 3·2 |
| Southwark & Vauxhall | 17·43 | 0·055 | 0·115 | 0·001 | 13·9 | 3·3 |
| Chelsea | 17·07 | 0·053 | 0·113 | 0·001 | 13·8 | 3·3 |
| Lambeth | 17·30 | 0·050 | 0·147 | 0·001 | 13·8 | 3·3 |
| *Other Companies.* | | | | | | |
| Kent | 27·60 | 0·004 | 0·248 | 0·000 | 20·4 | 5·6 |
| New River | 17·33 | 0·011 | 0·115 | 0·000 | 14·0 | 3·6 |
| East London | 15·33 | 0·041 | 0·146 | 0·001 | 13·0 | 3·0 |

*Note.*—The amount of oxygen required to oxidise the organic matters nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was very slightly turbid—namely, in those of the Grand Junction, the Southwark and Vauxhall, the Lambeth, and the Chelsea Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 127,649,728 gallons; and the number of houses supplied was 512,540. This is at the rate of 37·5 gallons per head of the population daily.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*J. H. G.*—Try Bucknill and Tuke's, or Blandford's works.

*A Canadian.*—Evidence was given before the Select Committee of the House of Commons last session on the Adulteration Act, that there was a large consumption of opium in this country, but not in proportion to the population.

*K. V. S.*—Dr. Carpenter on Asphyxia, "Library of Medicine," vol. iii.

*Secundus.—Medico-Chirurgical Transactions*, vol. xv., part 2.

*Corwin W. N.*—

> "And as when heavy sleep has closed the sight,
> The sickly fancy labours in the night,
> We seem to run, and, destitute of force,
> Our sinking limbs forsake us in the course;
> In vain we heave for breath, in vain we cry:
> The nerves, unbrac'd, their usual strength deny,
> And on the tongue the faltering accents die."
>
> —Dryden's Translation of Virgil (Æneid xii., 908).

*M.R.C.S. Eng.*—On inquiry at the College of Surgeons, we find that the person advertising in the *Daily Times* of Kearney, Nebraska, as "Dr. J. E. Vailes, physician, surgeon, and accoucheur, and a Fellow of the Royal College of Surgeons," is quite unconnected with the institution in Lincoln's Inn-fields; neither is his name to be found in the General Register, or in the list of "practitioners resident abroad possessing British qualifications," published in Churchill's "Directories."

COMMUNICATIONS have been received from—

Dr. A. Johnson, London; Mr. J. Valentine, jun., Aberdeen; Mr. F. Coward, Huddersfield; Mr. W. L. White, Hackley; Mr. A. Jackson, Sheffield; Mr. R. M. Craven, Southport; Dr. Petitfils, Vierzon; Mr. Scatchard, Boston Spa; Dr. W. H. Dickinson, London; Dr. J. C. Hall, Sheffield; Mr. H. A. Reeves, London; Dr. Ferrier, Pitlochry; Mr. E. Owen, London; Mr. C. J. Wheelhouse, Leeds; Mr. R. J. Godlee, London; Dr. A. E. Sansom, London; J. H. G.; Mr. W. J. Thicke; The Registrar of the Apothecaries' Hall, London; Dr. E. J. Domville, Exeter; Mr. T. P. Pick, London; Professor Humphry, Cambridge; The Registrar-General, Edinburgh; Dr. Letheby; Dr. Fenwick, London; Mr. T. A. Rogers, London; Mr. Walter Reeves, London; The Secretary of the Pathological Society; The Secretary of the Royal Medico-Chirurgical Society; The Secretary of the Clinical Society; Mr. T. Lyle, Dalston; Dr. Potter, London; Dr. J. C. Murray, Newcastle-on-Tyne; Mr. W. Spencer Watson, London; Dr. F. T. Roberts, London; Mr. Wm. Mac Cormac, Loudon; Mr. Andrew Clark, London; Mr. J Chatto, London; Dr. James Russell, Birmingham; Dr. Lionel S. Beale, London; Dr. R. Lawson, Wakefield; Dr. Eustace Smith, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—The Lisbon News-Letter—O Correio Medico de Lisboa—Morning Advertiser—Le Moniteur de la Santé—Bulletin Général de Thérapeutique—Medical Temperance Journal—Monthly Microscopical Journal—Burnham and Highbridge Gazette—Revue Médicale de l'Est, Nos. 1 to 12—British and Foreign Medico-Chirurgical Review—Students' Journal and Hospital Gazette—Popular Science Review—Science Gossip.

BOOKS AND PAMPHLETS RECEIVED—

Guy and Ferrier's Principles of Forensic Medicine—Nayler on Diseases of the Skin, second edition—Forbes on the Transit of Venus—Annual Report of the Board of Works for the Wandsworth District—Report of the Sanitary Condition of the several parishes comprised in the Wandsworth District—De Renzy's Remarks on the Report of the Sanitary Commissioner with the Government of India on the Cholera Epidemic of 1872 in Northern India—On the Means employed at the Preston Retreat for the Prevention and Treatment of Puerperal Diseases, by W. Goodell, M.D.—Remarks on Double Monsters, by E. S. Dunster, M.D.—Letheby on the Right Use of Disinfectants—Die Harncylinder mit besonderer berücksichtigung iher Diagnostischen Bedeutung: Gekrönte preisschrift, von Dr. A. Burkart—Die Contractilität der Milz und die beziehung der Infectionsprocesse zur Milz, Leher, den Nieren und dem Herzen, von Dr. S Botkin—Jacobi on Gastrotomy in Stricture of the Œsophagus—Fothergill on the Maintenance of Health—Moore's Physiological Chemistry—Bad Wildungen und seine Mineralquellen mit besonderer Berücksichtigung ihrer Heilkräfte bei den Krankheiten der Harnorgane, von Dr. A. Stoecker.

## APPOINTMENTS FOR THE WEEK.

*October* 3. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

5. *Monday*.

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

6. *Tuesday*.

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

7. *Wednesday*.

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. John Williams, "On the Relation between Congestion of the Uterus and Flexion of the Organ." Dr. Bathurst Woodman, "On the Prevention of Mammary Abscesses by the application of the Principle of Rest." Dr. Gervis, "Cases of Retroversion of the Gravid Uterus." Dr. Madge, "Case of Ileo-cæcal Intussusceptiou in an Infant of eight months." And other communications.

Royal Microscopical Society, 8 p.m. Mr. Alfred Sanders, Supplementary Remarks "On the Appendicularia."

8. *Thursday*.

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

9. *Friday*.

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Mr. Dalby, "On a Case of a Foreign Body Impacted in the External Auditory Meatus." Mr. Haward, "On a Case of Caries of the Cervical Spine." Dr. Southey, "On a Case of Extensive Cancer in the Lungs."

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, September* 26.

### BIRTHS.

Births of Boys, 1111; Girls, 1105; Total, 2216.
Average of 10 corresponding years 1864-73, 2120·7.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 584 | 553 | 1137 |
| Average of the ten years 1864-73 | 642·5 | 597·9 | 1240·4 |
| Average corrected to increased population | ... | ... | 1364 |
| Deaths of people aged 80 and upwards | ... | ... | 43 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | ... | 4 | 2 | ... | ... | 2 | ... | 6 |
| North ... ... | 751729 | ... | 5 | 20 | ... | 5 | 1 | 7 | ... | 6 |
| Central ... | 334369 | ... | 1 | 12 | 1 | 1 | 2 | 2 | 2 | 2 |
| East ... ... | 639111 | ... | 5 | 27 | 3 | 3 | 1 | 5 | 3 | 4 |
| South ... ... | 967692 | ... | 2 | 12 | 2 | 5 | 3 | 1 | 4 | 11 |
| Total ... ... | 3254260 | ... | 13 | 75 | 8 | 14 | 7 | 17 | 9 | 29 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·833 in. |
| Mean temperature | 60·1° |
| Highest point of thermometer | 78·1° |
| Lowest point of thermometer | 47·9° |
| Mean dew-point temperature | 55·4° |
| General direction of wind | Variable. |
| Whole amount of rain in the week | 0·21 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, September 26, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Sept. 26. | Deaths Registered during the week ending Sept. 26. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2216 | 1137 | 78·1 | 47·9 | 60·1 | 15·61 | 0·21 | 0·53 |
| Portsmouth ... | 120436 | 26·8 | 77 | 30 | ... | ... | ... | ... | 0·10 | 0·25 |
| Norwich ... ... | 82257 | 11·0 | 60 | 30 | 73·0 | 47·5 | 58·1 | 14·50 | 0·30 | 0·76 |
| Bristol ... ... | 192889 | 43·3 | 148 | 61 | 74·5 | 50·1 | 58·2 | 14·55 | 0·58 | 1·47 |
| Wolverhampton ... | 70896 | 20·9 | 42 | 23 | 76·9 | 47·6 | 58·5 | 14·72 | 0·36 | 0·91 |
| Birmingham ... | 360892 | 43·0 | 275 | 157 | 74·0 | 47·8 | 58·7 | 14·83 | 0·33 | 0·84 |
| Leicester ... ... | 106202 | 33·2 | 83 | 46 | ... | ... | ... | ... | ... | ... |
| Nottingham ... | 90894 | 45·5 | 53 | 41 | 74·2 | 44·0 | 57·5 | 14·16 | 0·40 | 1·02 |
| Liverpool ... ... | 510640 | 98·0 | 382 | 326 | 68·3 | 48·3 | 57·1 | 13·94 | 0·20 | 0·51 |
| Manchester ... | 355339 | 82·8 | 294 | 211 | 73·0 | 48·0 | 57·8 | 14·33 | 0·50 | 1·27 |
| Salford ... ... | 133068 | 25·7 | 131 | 71 | 72·4 | 47·5 | 57·5 | 14·16 | 0·45 | 1·14 |
| Oldham ... ... | 86281 | 18·5 | 60 | 47 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 167 | 84 | 68·5 | 49·8 | 57·2 | 14·00 | 0·44 | 1·12 |
| Leeds ... ... | 278798 | 12·9 | 305 | 122 | 70·0 | 49·0 | 57·5 | 14·16 | 0·51 | 1·30 |
| Sheffield ... ... | 261029 | 13·3 | 226 | 113 | 74·0 | 47·0 | 58·4 | 14·66 | 0·37 | 0·94 |
| Hull ... ... ... | 130996 | 36·0 | 91 | 63 | 71·0 | 44·0 | 56·6 | 13·66 | 0·11 | 0·28 |
| Sunderland ... | 101378 | 31·6 | 114 | 31 | 80·0 | 45·5 | 59·1 | 15·05 | 0·26 | 0·66 |
| Newcastle-on-Tyne | 135437 | 25·2 | 131 | 87 | ... | ... | ... | ... | ... | ... |
| Edinburgh ... ... | 211691 | 47·8 | 157 | 77 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 361 | 277 | 67·5 | 45·8 | 55·8 | 13·22 | 1·63 | 4·14 |
| Dublin ... ... | 314666 | 31·3 | 172 | 134 | 71·2 | 41·3 | 57·4 | 14·11 | 0·67 | 1·70 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5545 | 3168 | 80·0 | 41·3 | 57·8 | 14·33 | 0·44 | 1·12 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·83 in. The lowest was 29·45 in. on Monday afternoon, and the highest 30·10 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

SIX LECTURES ON THE

## SURGICAL TREATMENT OF ANEURISM IN ITS VARIOUS FORMS.

DELIVERED IN THE THEATRE OF THE ROYAL COLLEGE OF SURGEONS.

By TIMOTHY HOLMES, F.R.C.S.,
Professor of Surgery and Pathology to the College.

### Abstract of Lecture VI.,

*Delivered on Friday, June* 19.

The discussion of Popliteal Aneurism, which formed the subject-matter of the last two lectures, was continued in the earlier part of this lecture, with the consideration of the treatment by genuflexion. The Professor began by stating that flexion of the limb is the simplest, the least distressing, and the least dangerous of all the methods of treating popliteal aneurism. That it should also be the least certain is not to be wondered at. When it succeeds, the absence of all pain and danger in the treatment of so formidable a disease is really marvellous. When it fails, it usually produces no bad effect (with some exceptions, probably no effect at all) on the progress of the case. But, as a general rule, it may be stated that flexion is often successful, and when unsuccessful is harmless.

Mr. Holmes's own experience of the method has been very favourable. Three cases which have recently been treated at St. George's (two by himself, and one by Mr. Rouse) were all rapidly cured by flexion. Mr. Ernest Hart's case, which was the first in England, and which is reported along with a successful case by Mr. Shaw, in vol. xlii. of the *Medico-Chirurgical Transactions*, lead the way to the general trial of the method, especially in this country.

It must now be seen what have been the results of the trial, and an endeavour must be made to explain the action of the remedy, and to form the rules for its application in appropriate cases.

In Fischer's tables the result of flexion in forty-eight cases (thirty-six of which are English) of popliteal aneurism is given. In eighteen, flexion alone was successful, and in four out of these instrumental compression had failed. Flexion also succeeded in five others; in two of which it was combined with instrumental, in two with digital compression, and in one with the direct pressure of a bag of shot. So that the method was successful in 49 per cent. Of the other cases—twenty-five in number—the result is not given in four; all the rest were cured, except one who died after the ligature; but in two others the limb had to be amputated after ligature of the artery.

Many cases which have occurred or have been published during the five years which have elapsed since its compilation might be added to this list. A good many of these have been collected by the Professor, but they show about the same results on the whole as those derivable from Fischer's statistics—viz., (1) A very large proportion of cases in which success is obtained at once, with no serious inconvenience, and no danger whatever; (2) a tolerably large proportion in which the treatment has to be abandoned, and that either on account of pain provoked by it, or because it seems to exercise no curative power on the aneurism, but in which the course of the disease and the result of future treatment do not seem in any perceptible degree affected by the trial of flexion; and (3) finally, a small number of cases in which the treatment seems to cause rupture of the sac or gangrene, and therefore has a very injurious influence on the progress of the case.

The lecturer having considered each of these classes of cases in succession, and pointed out some of the causes of the success and failure of flexion, afterwards discussed the indications for and against this method of treatment.

First, of the successful cases, whether primary or secondary—that is, whether other treatment has not been tried or has previously been tried and failed. Now, among the former, we have some of the most striking cures which are to be found in the whole history of surgery, especially when we reflect that the disease is a very grave one, and that in spite of the success of the Hunterian operation the ligation of the femoral artery cannot fail to arouse a feeling of painful anxiety in the mind of the surgeon.

There are, on the contrary, cases of flexion treatment in which no such anxiety need be felt for a moment, in which flexion produces so slight inconvenience that the whole treatment consists of little more than a temporary confinement to bed, and some in which there is not even this confinement, but the patient is allowed to move about. There appears to prevail in the minds of some surgeons an idea that in order to cure popliteal aneurism a violent and painful degree of flexion is necessary, and they support this idea of the pain of the treatment by instancing the inconvenience which sudden forced flexion causes to healthy persons. But in most cases there is no reason whatever for any extreme degree of flexion, and its sudden enforcement is a great error which has led most probably to many of the failures of the method. The most rapid and painless cures have been brought about without any forced flexion or any apparatus,—not even a bandage. Two cases of popliteal aneurism under the Professor's care were cured in less than two days. In the first of these flexion was to a certain extent *forced*. In the second case the trial of forced flexion produced a good deal of pain, and the man was accordingly merely directed to flex the leg for himself as often and as long as he could, the limb reclining on a pillow in the bed, and when weary of the position to change it a little. After only two days of this the pulsation and bruit had disappeared, and the enlargement of the collateral vessels was felt. As a matter of precaution, the voluntary flexion was continued for two days longer. The tumour in this patient has since disappeared, but the enlargement of the collaterals is permanent. Nor is the cure of the disease by voluntary flexion at all an exceptional circumstance. With Mr. Rouse's patient the same treatment proved successful, as it did also in two cases from French sources, which were quoted by the lecturer, and which show forcibly that the success of this painless and simple method is recognised abroad.

The indications for the employment of flexion, or the circumstances which augur its success, are the small size and recent origin of the tumour, the integrity and stoutness of the sac, the presence of a certain amount of coagulum, the efficiency of flexion in stopping (or at least in diminishing) the pulsation, and the fact that the position causes little distress. Sometimes it will even relieve the pain produced by the aneurism. When all these circumstances meet together, or even when the most important of them are observed, we are justified in hoping for a favourable result from genuflexion; but with the clear evidence which we now have of the success attending other methods of treatment, the effects of which can be better estimated, Mr. Holmes thinks it is not wise to persist too long in the flexion treatment when it is not obviously doing good.

Flexion, however, does not always succeed so rapidly as in the cases quoted by the lecturer; and when, although not immediately successful, it is clearly doing good, there is no reason for hurriedly resorting to any other treatment, and particularly in patients on whom more active treatment would be dangerous. This point is well illustrated by the history of a diabetic patient affected with popliteal aneurism, who was under the care of M. Verneuil. The constitutional disease precluded the idea of ligature, and the tendency to sloughing prevented any effectual amount of pressure being employed, though the flexion was supplemented by a certain degree of both direct and indirect compression. But as gradual improvement followed on the use of flexion in short sittings and at considerable intervals, this treatment was persisted in until at length the patient was completely cured. No doubt the number of successful cases of genuflexion might be increased if the method were more mildly and mercifully administered, and if the prospects of cure from voluntary and unforced flexion were more generally admitted.

But there are many cases in which flexion is ineffectual, and there are, no doubt, others in which it does very grievous harm, either by causing rupture of the sac or by producing gangrene. In Dr. Fayrer's case (reported in the *Medical Times and Gazette* for 1867) the aneurism burst immediately after, and the bursting was probably produced by flexion. Such seems to have been Dr. Fayrer's opinion. The aneurism was one of very rapid formation, still growing very fast, and having a thin sac. Amputation was subsequently requisite, and the patient recovered with the loss of his limb. Other cases, more or less similar in character to the above, were quoted, especially a case under Mr. Holthouse.

Had we clear ideas of the exact operation of flexion, we should obviously be more likely to avoid failure. The chief effect of flexion is the retardation of the stream of blood;

and it is to this that the method owes its existence, for it was originally recommended by Malgaigne, Thierry, and others from the analogy of its hæmostatic action in wounds of the hands, and it was first used by Maunois and Ernest Hart in consequence of their having noticed that bending the leg stopped the pulsation of the aneurism. The following description is given by M. Larondelle of the changes in the artery as observed in the dead subject:—"When the leg is bent to a right angle on the thigh, the popliteal artery changes its direction from rectilinear to flexuous in the portion below the bend of the joint, the curves being very small and very close together. At the same time, the artery becomes flattened at the flexure of the joint. As the flexion is increased, the flattening and the curving of the vessel become greater, while above the flexure of the joint the artery preserves its normal direction. If the posterior tibial artery be cut across at the ankle-joint, and water be injected into the femoral, the jet will be found to diminish as the angle of flexion increases; and when the heel is bent to within four inches of the tuber ischii it stops altogether, while the piston of the syringe resists forcibly the attempt to drive the injection." Still, flexion succeeds in femoro-popliteal aneurism also—as, for instance, in M. Legouest's case in the *Gazette des Hôpitaux*, 1869, p. 185; and it is clear that this cannot be entirely accounted for by the changes which this author describes in the lower part of the vessel. After quoting from Mr. Ernest Hart's paper, published in the *Gazette des Hôpitaux*, 1864, that author's explanation of the action of flexion of the limb in aneurism, Professor Holmes goes on to say that he himself suspects that flexion also cures by the displacement of clot, and the consequent obliteration of the mouth of the aneurismal tumour quite as much as by the diminution of the force of the blood-stream and by direct pressure on the tumour—perhaps more so. If the tumour be in part occupied by somewhat loose coagula, and if the flexion of the limb happens to displace one of these coagula into the opening of the tumour, forming a plug there, we can easily understand that such a plug may so far increase during a few hours of flexion as to produce an invincible obstacle to any further growth of the tumour. Or, again, even if the aneurism contains no clot, or none which can be displaced, yet it is conceivable that its mouth may be so situated as to be closed by the bending of the artery; or the old idea that the aneurism may be cured by the tumour itself compressing the artery which leads into it, may be realised in cases where the limb is flexed.

Apart from some such mechanical explanation, Mr. Holmes cannot see how we are to understand either the rapid cures which sometimes occur under flexion (as also under other forms of pressure) or the immediate stoppage of the bruit and of the pulsation which pressure does undoubtedly in some cases produce, though not in all. Again, the cases in which the flexion treatment produces an incomplete cure, which gradually goes on to completion, similar to what occurs so often in the rapid method of compression, seems to be best explained by impaction of clot in the mouth of the aneurism. If this be so, the action of genuflexion would be very similar to that of manipulation. A very interesting case, reported by Mr. Pemberton, and suggestive of this case, was quoted.

After a brief allusion to the less usual form of treatment of popliteal aneurism, the lecturer commented on the method practised by Dr. Lewis (of Philadelphia) and Mr. Bryant, of introducing horsehair into the sac, and remarked that the method is probably worthy of a trial in cases where others seem too dangerous. Horsehair, he continued, is a more innocuous substance than the wire which Mr. Moore first introduced for the same purpose, and it does not melt in the blood-stream as the catgut does which Dr. Murray substituted for the wire; but all such plans must be both dangerous and uncertain, and therefore very little applicable under ordinary circumstances to cases of popliteal aneurism.

It must not be overlooked that some aneurisms, even when almost completely consolidated, will still continue to increase in size, without any pulsation, almost exactly resembling malignant disease, and producing, in the case of popliteal aneurism, symptoms depending on the pressure exerted by the tumour on the great vein, which renders amputation necessary, even though the surgeon is perfectly aware of the nature of the tumour.

As a matter of fact, however, such tumours are usually mistaken for malignant disease, and it is interesting to inquire whether the mistake is inevitable or not. There can be no doubt that it has been committed so often, and by such distinguished surgeons, that it is sufficiently pardonable. Cases of the sort were quoted at some length.

There are other cases in which the course of symptoms and the pathological appearances are very much the same as the above, but where the history prevents any ambiguity in diagnosis—viz., cases of definite rupture of the aneurism and subsequent growth.

The conclusions as to the treatment of popliteal aneurism, to which our present experience points, are, Mr. Holmes thinks, the following:—

1. That rapidly growing aneurisms with a thin or imperfect sac are best treated by immediate ligature, especially when caused by recent violence; and that the success of compression is doubtful in aneurisms growing towards the knee-joint, and in all others which advance rapidly.

2. That the Hunterian ligature has been about twice as successful in modern hospital practice in this country as the results of the accepted statistics show it to have been.

3. That the results of the compression treatment in the same hospitals have given as yet about the same average as those of the ligature, but that these results might be much improved by a more careful employment of the method.

4. That too long persistence in compression is to be deprecated, as being likely to interfere with the success of the ligature.

5. That flexion is often successful when used so as not to distress the patient, and is worthy of a trial in all cases in which it stops or materially checks the pulsation, but should not be long persisted in when it is not at once beneficial.

6. That we have no evidence showing the utility of, or the need for, the less usual forms of treatment, such as galvanism, coagulating injections, manipulation, temporary ligature, or the introduction of foreign bodies.

The lecturer passed on to consider aneurisms of the tibial arteries. These are usually traumatic, yet spontaneous aneurism in the posterior tibial is illustrated by a tolerable number of cases, and even the anterior tibial is known to have been similarly affected, though its small size, its immovable situation, and the firm support which it derives from the strong fasciæ surrounding it are all circumstances which oppose themselves to spontaneous dilatation.

The Professor then gave references to cases of spontaneous aneurism of the tibial arteries which he had come across in reading—for the satisfactory illustration of the subject, and for the convenience of those who are especially interested in it.

He has no knowledge of spontaneous aneurism of any of the arteries of the foot, and traumatic aneurism there is decidedly rare, though a case was lately related to the Société de Chirurgie of a man above seventy years of age in whom a small aneurism formed in the dorsalis pedis artery from a sprain of the foot, and was cured by ligature of the anterior tibial.

The list of cases referred to shows the occasional existence in the comparatively small tibial arteries of aneurismal tumours arising spontaneously (including under the term "spontaneous" aneurism also such cases as are referred with more or less reason to an accident occurring a long time before the appearance of the pulsating tumour), and also to point out that in the leg, as in the forearm, such aneurisms are very commonly connected with disease of the heart. What the usual termination of the disease would be apart from surgical treatment is uncertain, yet this lies at the bottom of the question as to the proper treatment to be adopted. The histories of the cases referred to show that the disease is curable by ligature of the femoral, by compression, and even (as the Guy's Hospital preparation would seem to prove) by the resources of nature. This being the case, it is not well to employ any too vigorous treatment of a small aneurismal tumour in the leg or in the forearm.

The nearer the tumour approaches the popliteal space, the greater the room for its growth, whether situated on the upper part of the posterior tibial or on that part of the anterior which lies behind the interosseous membrane. But in neither case is the disease one of danger; and if the heart is diseased it will be better that no cutting operation be undertaken except under exceptional circumstances.

As to traumatic aneurism here, as in other regions, it appears that if a sac be very fully formed, and there is any evidence of its containing coagulum, it may fairly be treated as a spontaneous aneurism; but tumours with an imperfect or a very thin sac, the contents of which are entirely fluid, are best treated by ligature of the artery above and below, as in a recent wound of the vessel, only the operation is neither easy nor safe.

ABSTRACT OF THE

# INTRODUCTORY LECTURE

DELIVERED AT THE LEEDS SCHOOL OF MEDICINE

By C. G. WHEELHOUSE, F.R.C.S., etc.,
Senior Surgeon to the Hospital.

THE address in this School was delivered by C. G. Wheelhouse, Esq., F.R.C.S., Senior Surgeon to the Hospital and Senior Lecturer on Surgery in the School of Medicine.

After a few words of earnest welcome to the students as a body, Mr. Wheelhouse proceeded to advise them as follows as to the best method of using their time and the opportunities at their disposal:—

"And to you who are taking your places amongst us for the first time to-day, and who, by so joining us, are taking the most important step of your whole lives, what am I to say? Not only that we bid you heartily welcome—not only that we hail you gladly as recruits who, when we ourselves shall fall out from the ranks, will be ready to step forward and occupy our places; but, that I am charged with a message to you, the responsibility of which I find it impossible to over-estimate.

"I am here to-day more especially to unfold to you some of the leading features of your new career; to stimulate your hopes and expectations with respect to it; and to ratify and confirm the wisdom of the choice you have made in entering upon it by declaring it to be amongst the very noblest of all noble occupations; dealing with the very noblest conceptions which have ever entered either into the heart or mind of man; and as one which, when pursued in the true spirit of philanthropy and single-heartedness, will suffice to fill your whole after lives with a happy consciousness of devotion to the highest objects of which human nature is capable.

"To you, hereafter, will be given the alleviation of the woes and sufferings of those who are afflicted—the mitigation of the sharpness of the strokes of disease—the restoration of the sick to health—and, above all, the tracking of disease itself, not only to its most secret hiding-places, but to its very birth-place, that you may crush it ere it has the opportunity to germinate and spread.

"High and noble duties indeed, you will be tempted to say; but how are we to fit ourselves to undertake them? By strict attention, I would answer, to the curriculum laid down for you by the authorities, remembering that every point in that curriculum has been carefully thought out for you by those who know best how to direct your studies; and by following the advice of those under whose guidance you now place yourselves, and who will, at all times, be ready to help you to solve any difficulty that may spring up in your path.

"Your first two years ought, undoubtedly, to be devoted to the three great studies upon which you will afterwards have to build up everything else—viz., anatomy, chemistry, and physiology. It is manifest that without a complete practical and thorough knowledge of anatomy you can never hope to become either physicians or surgeons; and seeing that disease consists mainly in either change of structure or disordered physiological action, or both, it is no less clear that a profound knowledge of physiology, as well as of anatomy, is an essential part of the foundation you must lay. But, though you may have attained to the highest conceivable knowledge of the structure of the body, it will be simply impossible to attain to any perfect understanding of the functions of its various organs, unless you have also acquired a good and sound insight into the main laws of chemistry and chemical action. Physiology is, in reality, the chemistry of organic life in action. Every thought that scintillates from your brain is the result of chemical change; every throb that accompanies the action of your heart arises from the same ultimate source, and every breath you draw would fail in its purpose if it were not directly accompanied by vital chemical changes. Hence, to understand physiology, you must be well acquainted with the more ordinary phenomena and laws of chemistry, as well as with the structure of the organs whose actions you desire to study; and, as you become proficient in anatomy and chemistry, so will you be prepared to undertake the more complicated study of physiology, and to trace out, not only the functions of individual organs, but also so to group them together as step by step to rise to the perception of the harmonics of the whole, as they constitute the great facts of life and health.

"Here, then, is clearly marked out the first great object of your student career—a knowledge of the structure and the working of the machine which it will be your great duty hereafter to regulate and keep in order. And now let me say a word or two as to how these studies should be conducted.

"At the close of the second year of your curriculum it will be your duty to present yourselves before certain examiners, and your examination will, of course and of necessity, be looked upon as a momentous matter. But, so far as you are able, I advise you to dismiss the thought of examination altogether from your minds. Work as if no such occasion were confronting you; work as if your one and only object was the acquirement of knowledge, and the examination will come, not as a terrible moment of reckoning, but as an occasion on which you may, with pardonable pride, show how much you have acquired. The watchmaker or the engineer, as he ponders over the mechanism of the watch or piece of machinery upon whose construction he is bent, has no such fear before his eyes. He carefully surveys every wheel and lever, spring and valve, thinking only of the perfection to which he hopes to bring his work, and the thorough knowledge he will possess of its construction and action,—and that is the spirit of inquiry I recommend for your adoption. Your machine is the human body. Pick it to pieces, organ by organ, fibre by fibre, many times over, until there is no part of it whose structure you do not fully comprehend. Rely only on your anatomical guide-books, as, when you were schoolboys, you relied upon your dictionary and your lexicon; apply to them only when you are in a difficulty, and use them *only* as guides to that which you cannot otherwise understand. There is too great a tendency in the study of anatomy to rely more upon the help of the book than upon the subject itself, and in times of trial knowledge so acquired is very apt to fail. You may depend upon it, the ancient anatomists, who had no books but the book of nature, so pored over that volume that no thought of examination would have terrified them or made them 'nervous'; and when I hear of a man being so nervous at an examination that he loses his self-confidence, I always feel inclined to attribute the failing to insecurity in the foundation on which his knowledge is based.

"With regard to physiology, you must be more dependent upon reading than in the case of anatomy. It is a science which has only been slowly evolved, and which has grown to its present proportions only commensurately with the growth of collateral sciences, and chiefly with that of chemistry; but it is the science upon which medicine is based, and, unfortunately, it is one which until lately has been considered as being more appropriately the possession of the professor than of the student.

"Of late years, however, a more and more thorough knowledge of the subject has been demanded by the authorities, and I think I am not wrong in saying that of late years also more and more candidates have been rejected for deficiency in this branch than in the more practical one of anatomy. I therefore very earnestly commend it to your serious consideration, and would impress upon you the necessity of constituting it, from the first, amongst your principal and most earnest studies.

"With these three subjects, then,—anatomy, chemistry, and physiology,—your time during your first two winters' attendance may be very fully occupied; so fully that I do not advise you to enter, in any systematic sense, upon the more advanced subjects of medicine and surgery at first,—these will come much more appropriately later on, and with a good groundwork such as I have indicated will be studied to infinitely greater advantage.

"And yet, even during your first year, you may be laying something of a foundation for their study also. You will need some change of thought and occupation—some mental recreation. Let that recreation be found in the wards of the hospital. The success of your after career will depend greatly upon the degree to which you have educated two faculties innate in all our minds—the faculties of observation and imitation. These you cannot begin to cultivate too early, nor can you ever educate them too highly. Begin, then, from the very first. Spend a certain amount of every day in the hospital,—watch everything that is done there by everybody,—observe for yourselves all that goes on. Observation is one of the highest faculties for good that you possess, and will do more for you than genius in its highest flights. Observation led Sir Isaac Newton to that greatest of all physical discoveries—the discovery of gravitation. No other power than that of patient observation could have led Harvey to the discovery of

the circulation of the blood. And observation, again, in the case of our immortal countryman, Jenner, eventuated in that glorious discovery of vaccination, by which the direst scourge that ever afflicted the human race has been almost, and is capable of being perfectly, eradicated and stamped out of existence. Observe, then, everything that goes on in the hospital around you, even though you may not in the least understand much of what you see. A time will come later on when you will be abundantly repaid, and hours apparently inactively spent now will prove to have been the seed-time from which a rich and abundant harvest will spring up hereafter.

"Watch every manipulation, whether medical or surgical, that you see. Imitate every one of them until you are able to produce such results with them as you see in the hands of others. You will learn how the physician brings all his senses to bear upon every fresh case that is presented to his observation. You will see how he notes with his eye the wan or wasted aspect of his patient; how by his senses of touch and hearing he appreciates the condition of the circulation; how his hand has been educated to elicit by percussion and palpation the condition of internal organs; and whenever you have the opportunity, imitate all you have seen him do; then think what each action teaches you. Your thorough appreciation of it all will come later on; but in the meantime you will be passing through the rudiments of knowledge which in later times will be of great value to you.

"In like manner watch, and, as far as you can, imitate, all that you see the surgeon do—the application of ordinary dressings, bandages, and all kinds of surgical appliances; so that, when it comes to your turn in after time to use them, they may not be altogether unfamiliar to you; and so you will pick up, almost as a matter of recreation, information and handiness which, in the more advanced stages of your career, you will greatly rejoice that you possess. Sir Astley Cooper used to be in the habit of assuring his pupils that a man's hands, in the doing of little things, often did more to advance his reputation than did his head. And I can speak from personal observation that this, at all events, is very often so; and that, though a man may have a profound and scholarly knowledge of the pathology of internal diseases, he may mar all by the fact that he is unable to use even simple instruments with facility and ease.

"All these minor operations you may watch over and over again as performed by others, until at last you will come consciously to feel that you could do them yourselves. Then, whenever an opportunity occurs, seize it with avidity, and never forget that it is practice, and practice only, which will give you that ease and facility of manipulation which, when it comes in aid of sound judgment, will bring you the consciousness of surgical superiority.

"In this manner you will most profitably spend the first two years of your studentship, and, short though that time may seem to you, it will suffice to give you such an insight into and knowledge of the subjects required for your primary examination that you will pass through that ordeal not only with credit and satisfaction to yourselves, but with credit also to your school—a matter of which I trust you will never altogether lose sight.

"This portion of your studentship over, a firm and solid foundation having been laid, the time will come when you will associate yourselves more closely with those whose duty it will be to aid you in raising the superstructure whose building is to be henceforward the labour of your lives.

"So long as you remain with us we shall help you patiently to pile stone upon stone until the edifice is simply raised. When it is so far completed as to be ready for occupation you will leave us, and then will commence the time of the real trial of its strength.

"If its foundation has been laid in the sand, and its superstructure has been insecurely wrought, it will need but few of the buffetings and storms of real practical life to bring it with ignominy to the ground. But if the work, so far as it has gone, be substantial; if the foundation has been laid in the rock, no matter how fiercely the winds may howl around it, it will stand, and will remain unshaken by them; and year by year the artificer, proud of his work, so far only because of its solidity and strength, will commence with loving hand to beautify and perfect it, column and carving, turret and tower, tracery and fretwork, pinnacle and moulding, will be added as years roll on, until, at last, when the mists of age begin to dim the eye, and its feebleness to paralyse the hand of the builder, he will lay aside his tools with conscious pride in his goodly work, and will hand it on to his successors, assured that he, at any rate, has not been an idle and unprofitable labourer; and that, though his hands may not have been permitted to conclude the work, they may, at least, have adorned it with new beauties, and have left it the comelier an edifice for his labours. In the building of this structure it will be our duty, as your teachers, more especially in the branches of medicine, surgery, and midwifery, to give you every assistance that lies in our power, and you will find in the hospital abundant material upon which we may work together. Our province will be to explain, to expound, and to guide; yours to observe, to inquire, and to question for yourselves, never hesitating to come to us with your difficulties, or to ask for any information you may need to help you. In the first instance, you will find much that will appear to you to be inexplicable, and difficulty after difficulty will rise up in your path; but by patient perseverance you will overcome all these.

"In the first instance, too, you will undoubtedly find much that will greatly distress you, and some things that will probably disgust you; but these will be among the first difficulties you will surmount, and all that is needed, so far as they are concerned, to enable you to do this, will be steady perseverance and a firm conviction of duty.

"We must ask you to be very tender and forbearing with the sick, remembering that they are conscious sufferers, and are often placed under very trying and painful circumstances; to look with kindly gentleness upon many a caprice, which you might otherwise be inclined to censure, remembering that they have need of every comfort and consolation we can afford them. They are the material upon which you have to work, and their diseases and distresses are your study.

"Ask yourselves—what are these diseases? and I will give you the answer in the beautiful and graphic words of the late Dr. Latham:

"'They are not abstractions; they are modes of acting different from the natural and healthy modes; modes of disorganising, modes of suffering, and modes of dying; and there must be a living, sentient body for all this. This body must be your study, and your continual care, your active, willing, earnest care. Nothing must make you shrink from it. In its weakness and infirmities; in the dishonours of its corruption, you must still value it, still stay by it, to mark its hunger and thirst, its sleeping and waking, its heat, its cold, to hear its complaints, and to register its groans. And is it possible, you may ask, to feel an interest in all this? Aye, indeed it is, a greater, far greater interest than ever painter or sculptor took in the form and beauties of its health. And whence comes this interest? At first, perhaps it seldom comes naturally; a mere sense of duty must engender it, and still, for a while, a mere sense of duty must keep it alive. Presently the quick, curious, restless spirit of science enlivens it, and then it becomes an excitement, and then a pleasure, and then the deliberate choice of the mind.'

"Thus medicine, surgery, and midwifery will come in the latter part of your student-life to occupy your attention almost exclusively. If you have made yourselves thoroughly masters of the more preliminary branches of your education you will never forget them. You will find yourselves making such constant reference to them that they cannot escape from your memories; but you will only refer to them as guides and helps in your attempts to unravel the mysteries of disease and death, and as pointing your steps in the best directions in which to fight and conquer them, or to lead them to a safe conclusion; and so at length you will become so absorbed in your work that you will forget its drudgery, and will learn to delight in it for itself alone."

The next portion of the address was devoted to a rapid survey of the advances that have been made in medicine and surgery during the last fifty years; and Mr. Wheelhouse then endeavoured to point out in the following words the direction in which he would advise the rising generation to turn their thoughts:—

"And now, gentlemen, I think I have shown you that if our colleagues the physicians are advancing with rapid strides, we surgeons have not been standing still; and it only remains to me to endeavour to point out, as far as I am able, the paths by which you, as a rising generation, may continue to carry on the banner of our profession to still greater and more ennobling victories.

"We of the generation of which I must call myself in some measure a representative must rest content with the laurels we have already won. We have passed the summit of the hill of

life, and some of us are nearing the level plains through which flows the great river on its onward way to the ocean of eternity; our eyes are growing dim; our hands are becoming feeble; but you, who are just rising to the ascent, with all the energy and freshness of youth to give elasticity to your steps, who see no clouds in the far-off distance, even of middle life, have still noble work before you to do.

"We, who are wearying with the fight, are preparing to hand on the banner to you, that you may carry it into new fields, may win new victories for it, and inscribe it with yet further triumphs; and if you ask me whither, or in what direction I would advise you to look, I would point to the regions of 'preventive medicine.'

"In those regions you will find an almost uncultivated field for your energies, and, as it has ever been more commendable to prevent than to cure evils, so, in proportion as you succeed, will your work be of greater interest and value.

"Consider for a moment how vastly more numerous are the illnesses which we are able to prevent, than those which we are able to cure? How the thought brings to our minds at once such subjects as those of drainage and ventilation; of our water-supply; of overcrowded dwellings, and especially of schools; of the manner in which in these institutions the brains of our children are often, in defiance of the very simplest laws of health, exhausted, whilst their bodies are immured in rooms charged with an atmosphere which is poison; of impure and unwholesome feeding; of ill-assorted marriages; of the spread of infectious and contagious diseases, which a little knowledge of the simplest kind would check,—all of the most vital importance to you as the future guardians of the public health.

"I think there can be no doubt that the two greatest evils which afflict society in the present day, and which lead to the most widely spread and devastating forms of disease, are intemperance, and that other social evil which fastens upon the youth of our day with such cruel talons, and stamps the life of its victims with such a withering curse, that its sting is felt not only so long as the sufferer's own life shall last, but continues to live on in unabated, nay in tenfold vigour in the blood of his children and his children's children!

"And what of intemperance? Can we, as a profession, do more than others to aid in checking the spread of this great national evil? Is it possible for us, as a body, to exert any beneficial influence in arresting its progress? I think it is. Whose voice is so likely to be influential in a family as that of its truest friend, especially when speaking with authoritive warning? Upon some of the elder members, perchance upon the father, or even upon the mother, this dreadful vice may have fastened with a grasp which all our influence may fail to unclasp—and from such cases we can only retire disheartened, discomfited, and saddened; but to the younger members of the group we may still appeal with more of hope—to them our voices may still come home with deterrent power,—and if we can only assure them, not only upon grounds of morality, but can also show them upon sound professional reasoning that intemperance and comparatively early death are linked together with unfailing certainty, we may still do much to lessen the evil of such indiscriminate and thoughtless indulgence as may finally pass into confirmed and inveterate habits.

"I would ask you never to forget how easy it may be, by misdirected and unwise advice, to foster an indulgence or to create a desire for that which, unfortunately, comes clothed with only too great a fascination. Let me urge you, while you have the opportunity in the wards of the hospital, to watch the effect of stimulants in every case in which they are prescribed. If you will do this I venture to hope that, before you leave us, you will have learned their true value, and will have assigned them their proper place as medicines in the list of the arms with which you will go forth into the world to do battle with disease. Many of us in times past have been, and some of us are still, accused of being too much in the habit of both recklessly prescribing stimulants, and of fostering the idea that they are an essential part of our aliment; and it is against this teaching that I would warn you. That they are often of the greatest value, and to be replaced by no other remedies, I am quite ready to admit; that without their aid many a case now saved would sink hopelessly away, we can none of us deny. Ammonia, ether, and such-like stimulants are very well sometimes, and sometimes are of even greater value than either wine or brandy, but to say that they can always take the place of these latter is a doctrine against which all experience is emphatic, and which I am sure will come readily home in time to every one of you.

"And what shall I say of that other evil I have ventured to name? Of how many frightful maladies would the world be rid if we could but put our heel on the hydra-headed monster syphilis and stamp it out of existence! How many hundreds—aye, thousands—of sufferers would learn to bless our endeavours if they only knew to what source rightly to attribute the origination of their ailments! How many of these ailments baffle our utmost skill! How many existences are rendered miserable from the cradle to the grave; and yet how possible is it for us to stretch out a helping hand in this direction! By some far-seeing philanthropists the Contagious Diseases Acts were promulgated as an antidote; but a cry of horror has been raised concerning this legislation throughout the land! You will hear them condemned in terms of unmeasured hatred and denunciation, but, long before you leave us, you will have learned to look upon them as amongst the most powerful engines for good in all the armoury of Public Medicine.

"Society has raised its voice in almost universal chorus against them, but the cry of horror and of shame that has swelled up through the land concerning them is raised in ignorance, and, though fostered from most worthy motives, needs only the light of a little knowledge, such as that to which your eyes will presently be opened, to dissipate the mists of fanaticism by which it is embittered, and hush it to the silence of death.

"God forbid that I should seek to further any step that should tend to lessen the purity of pure English women; but we know only too well how deeply changed is the nature of those to whom, and to whom alone, these 'Acts' can apply, and how infinitely below all ordinary standards they have fallen; and surely we are bound by an inflexible chain of duty to endeavour by every means in our power, in the interest of those who are yet unborn, to check the spread of the illimitable evils which this vice is capable of inflicting on society. They who hold the opinion that the evils which men bring upon themselves by their sin should be justly borne by themselves as their punishment, are undoubtedly right; but they have no knowledge, they can have no knowledge, of the dire ramifications of the evil it is here sought to check. They forget that the effects of the sins of the father are to be carried by even the third and fourth generation of the children; and it is on behalf of these, the purely innocent, the yet unborn sufferers, that we should pledge ourselves to fight.

"You will see, during the term of your attendance at the hospital, how dreadfully common is the picture of little children brought into the world to pass through a long and weary martyrdom of miserable life—in whose eyes the light of Heaven is never destined to shine; whose very forms and features are so hideously distorted as to render them a by-word among their fellows; whose bones, diseased and rotten from their birth, can never assume even the ordinary proportions of health; whose digestive organs are unable to deal with food of even the very simplest character; whose days, as long as they live, will be days of misery, and their nights only prolongations of the wretchedness to which they have been doomed; and to whom, at last, even death will come as a welcome and long looked for friend, the only friend who is able to release them from the unceasing misery they have been compelled to bear in retribution for the sins of others.

"I grant you, gentlemen, this is a dreadful picture, but it is not overdrawn; not a shadow has been painted into it that you will not see over and over again with a frequency well calculated to appal those who will take such things to heart.

"And lastly, as I have said, you will find great scope for your energies, and a wide field in which to cultivate the highest usefulness of your profession in tracking infectious diseases to their source, and in devising and elaborating the means by which they may not only be temporarily abated, but may, in the end, be altogether removed from amongst us.

"Let your thoughts rest for a few moments upon what has already been effected in this direction. Look back upon the history of some of the greatest of this class of scourges. There was a time when, year by year, the whole earth was decimated by small-pox, and no human being was ever safe from its ravages. And where is that pestilence now? Buried in the grave of Jenner; or only rising up from time to time, a feeble shadow of its former self, to remind us of our want of watchfulness, our ignorance, or our fanaticism! Where is the old endemic plague of ague, which was wont in years gone by to lay so heavy a tax upon the population of our low-lying districts? Gone with the system of drainage with

which advancing science taught us to unload the soil of its superfluous water charged with the products of decaying vegetation. There was a time when the plague and cholera were our regular periodical visitors, and when the whole community was left unguarded from the consequences of their dreadful visits. Of the former we hear comparatively little now; and the latter, though still unvanquished and falling upon us from time to time with unabated virulence and too dreadful slaughter, is so much better understood than it was in former years that it is rarely permitted to reach us in its old epidemic form. Guarded by the wonderful power of the electric wire, no sooner does an outburst happen in any region of the world than every other part of it is so warned that it is up in arms to isolate it and prevent its invasion. Tracked in its origin at home to a foul or polluted water-supply, the whole deadly current may, if we so will it, be cut off at once; and our wells and springs may be so protected that with reasonable care the enemy can scarcely effect a lodgment in them; and so, to some extent, at any rate, we hold this pestilence at arm's length, too.

"But how about typhoid fever, diphtheria, scarlet fever, and a host of other septic and zymotic diseases? Are they not still so rife amongst us as to remain a standing and a lasting stain upon the medical knowledge of our day? Are they incapable of eradication? or are we ignorant of the sources from which they come? We know that they are the results of decomposing animal matter, and yet we so dispose of our sewage that scarcely a stream in the land is left unpoisoned by it. Are we not, moreover, year by year so saturating our soil with impurities of every kind that a pure and uncontaminated spring must, ere long, become not only a rarity but almost an impossibility?

"Do we not shun, and that most wisely, the presence of those afflicted with infectious diseases so long as they remain amongst us; and yet, no sooner are they removed by death than we are content, with tender sympathy indeed, and with most loving care, it is true—(but with how much wisdom?)—to lay them in the ground, that they may slowly dissipate their terribly infectious gases through the soil, and, saturating that, may thereby recharge the rains of heaven as they filter through it with all their virulence and terrible power of reproduction in the systems of the living.

"I am not the believer in the disinfecting and depurating power of the soil that I once was, for terrible examples of its failure have, in my judgment, come under my notice. Sir Henry Thompson has lately sounded a note of alarm on this subject; and though for the present it may fall upon ears unheeding or unsympathetic, I yet venture to think that in time to come his warning will be enforced by stern necessity, and that some better method of disposing of our dead will take the place of the burial so honoured and revered by us. That cremation would succeed in protecting the living from many of the evils which of necessity result from the slow and ghastly decomposition of the dead who moulder in the grave, I cannot doubt; but many years must elapse, I fear, before the public mind can be prepared for so great a change. It is 'impracticable,' say some! Where, then, is the engineering science of our day? It is 'unholy,' says others; but wherein consists the 'unholiness'? What can it matter whether the body be destroyed in an hour or in twenty years? Destroyed it must be in the end, and reduced to its simple elements; and whether in the bosom of the earth, in the trackless paths of the ocean, or in the purifying flame of the fiery furnace, can matter little, so only that it rests 'in sure and certain hope of a joyful resurrection.'"

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ABSTRACT OF THE

# INTRODUCTORY LECTURE

DELIVERED AT THE CHARING-CROSS HOSPITAL

By R. DOUGLAS POWELL, M.D., F.R.C.P.,
Assistant-Physician to the Hospital, etc.

After some preliminary remarks, Dr. Powell observed that it was, perhaps, only on hearing the usual but none the less sincere congratulations upon the nobleness of the profession they had chosen, which were always offered to them upon these occasions, that students first questioned themselves curiously as to how they came to choose the medical profession; and the question, What is the use of it? might to them at first appear a little staggering. For merely to say that the profession existed; that, of its superabundance, civilisation had yielded a fund for the lopping of overgrowths, the repair of degenerations, the preservation of buds and cuttings, and that thus doctors, like cooks and confectioners, were but the results and servants of luxury, was not a sufficiently encouraging answer to urge them onward. Nor, although a contingent pleasure, was the occasional sense of gratification that the immediate object of their lives was the relief of pain and misery, sufficient to justify to them their profession as a great one. It was too fitful and fleeting to sustain them to any high purpose, and was rather an element of over-anxiety and weakness if it held too high a place in the mind of the physician. On looking higher still for a worthier motive, they were met by the protest of some who would thrust them back again amongst the cooks and confectioners; that, by ameliorating the conditions of life, they preserved the feebler members of the human race at the expense of the strong, *levelling down* the whole human constitution by diluting the life of the strong with the lesser vitality of the feeble. He need not pause there gravely to contend against the futile notion that it would be possible for us to interfere with such laws of nature as determine the survival of the strongest. Such laws could not, however, be construed to mean that life was the exclusive right of those who had most of it! The laws of nature, "bound fast in fate," were not to be changed by human will; but it seemed obvious enough that by improving the general conditions of life we acted with those laws, and upheld, if he might so say, rather than let down, the vitality of the race; for every evil condition that would extinguish a weak life would damage, if not disable, a strong one. Proceeding to regard the matter from another aspect, Dr. Powell contended, that in the intellect or mind of man we found a new force, having, within wide limits, the mastery over other forces, and, unlike them, capable of continued growth from generation to generation, and that the true aim of civilisation—a great scheme of Nature in which we but took our part—was towards the attainment of a higher development of the intellectual and moral elements of our being, to the crowning with godlike wisdom and grace that human form which, in muscle, and bone, and nerve, was as perfect centuries ago as now. He doubted whether in this direction any man had ever lived whose life had not contributed directly or reflexly to human advancement, the weak being the hostages of the strong, to bind them to industry, to lessen violence and strife amongst them, and to humanise them. The ascertainment and maintenance, then, of the laws of life and health, mental and physical, under all the increasingly complex conditions of human existence, was a worthy and sufficient *raison d'être* for ours as a profession, being, in other words, the maintenance of the best bodily or material conditions for continued intellectual growth. In illustrating, in this point of view, the *educational* work before them, Dr. Powell quoted a recent article in the *Times* on the death of the late Dr. Anstie, saying that "science has yet to make itself heard and believed by the mass of even the educated public," and pointed out that it was only by the individual efforts of medical men, each amongst his own *clientèle*, teaching the laws of health, and the danger of neglecting them, that public opinion would ultimately be set right on such matters. He observed that a course of lectures on public health, commenced last session at Charing-cross Hospital, would be continued each year, the better to equip them for this good fight. The physician had sometimes to contend, however, against other agents, more subtle than material poisons, since they lurked in each human breast, at which he would but briefly hint now. Might we not sometimes warn in time "that way madness lies"? The passions and emotions were not mere storms in some independent ether, but were physiological, amenable to education, correlative, perhaps even interchangeable. Their want of early control might lead to crime in one generation, or to mental feebleness, or some form of insanity, in another. The hereditary descent of peculiarities of character was an interesting subject for further study with a view to improved education.

Dr. Powell next urged upon his hearers the importance of early establishing for themselves a good tradition to which they would find it comparatively easy to remain loyal. He thought astuteness and decision of mind, the habit of thinking out everything to a conclusion, so attractive and commanding in the man, was particularly valuable in the professional man.

He dwelt on the importance of note-taking and personal examination into everything as the best means of gaining early real experience, the safest antidote in practice to that indecision of mind against which he had already spoken. He warned senior students particularly against neglecting any branch of medical study; a man could only legitimately become a specialist after having thoroughly acquainted himself with the principles of medicine and surgery as exemplified in their every branch and department. Most of them would practise in every branch. Mentioning especially the diseases of women and children as being branches of study often somewhat neglected by students, he observed that the reflex phenomena of disease, which make up a certain portion of the symptoms of all diseases, were often most clearly and simply presented to us for study in these departments, and that a good knowledge of children's diseases was the very alphabet of medicine, teaching us the resources of nature, and how best to aid them by rest, diet, nursing, and medicine.

Dr. Powell concluded his address by saying:—"The practical work you have as yet done has been done amongst the poor, and it is amongst them that you will hereafter do your best work and gain your chief experience. We hear much talk just now concerning all conceivable and inconceivable plans for the resurrection of that somewhat cantankerous being, the poor man, from the state of mental, moral, and physical degradation in which he has been left behind by the cruel tide of fate! What we have to do in the matter is by our watchfulness and advocacy to obtain and maintain for him sanitary improvements, and to enable him to obtain our best professional aid without degrading or pauperising himself or his family. There are many difficulties in the way of effecting the latter object; they are chiefly of two kinds, I think—Firstly, the poor man has been led to believe that he can, without reproach, obtain advice and medicines for nothing; secondly, he has come to think—or rather, perhaps he continues to think, whilst the world above him has advanced to greater wisdom—that medicine is the only thing worth paying for, advice, so freely offered him *gratis*, being of corresponding value. Now, the only remedy, I think, for these false notions is the establishment of some form of provident medical relief throughout the kingdom. Some noble experiments are being made in this direction, and provident dispensaries are being now founded on the truest principles—*i.e.*, on really self-supporting business principles in which charity takes no part. It will be long, however, before they become firmly rooted institutions; and, meanwhile, I would advise everyone, on first commencing general practice, and as long as he is able, to make his surgery a provident dispensary, where, by a proper payment qualification during health, every working man or his family can seek advice and treatment during sickness. The personal advantage you will yourselves gain by some such plan as this will consist—first, in the experience you will acquire in diagnosis and therapeutics, while you have yet time to study disease, as it were in your shirt-sleeves, with no other formalities than those prompted by kindness and sympathy with the sick and suffering; and, secondly, you will thus lay a more sure foundation for future reputation and success, and you will do this too in the best interests of your poor patients rather than at the expense of their moral integrity."

ABSTRACT OF THE

# INTRODUCTORY LECTURE

DELIVERED AT THE LONDON HOSPITAL

By SAMUEL FENWICK, M.D., F.R.C.P., etc.,
Assistant-Physician to the London Hospital, etc.

Dr. Fenwick commenced his lecture by stating why he thought introductory lectures should still be continued. Many of those now commencing their studies were not only ignorant of all the sciences allied to medicine, but were unpractised even in the methods by which they could be most successfully pursued. Up to the present time their education had been restricted to languages and other branches of knowledge which only required a quick and retentive memory for their mastery; or they had been taught mathematics, in which truths are deduced from facts intuitively recognised by the mind. In medical science, on the contrary, the student has to make himself acquainted with the facts from which conclusions have been derived; he has to judge how far many of the inferences he is taught are justified by facts; and he has often to decide for himself between the claims of opposing theories.

All education, Dr. Fenwick remarked, had for its object either to store the mind with knowledge or so to train and improve the mental faculties that the individual may more readily acquire knowledge for himself. The latter is self-education, and it was of this self-education—or rather of the best way of conducting it in respect to medical science—that he intended to speak on the present occasion. Self-education consisted in the constant employment of certain mental powers so that they might be not only improved by exercise, but that their use might become gradually strengthened into habit. The first habit he would advise them to cultivate was that of minute and careful observation. They would probably ask—What is easier than to observe correctly, and why trouble themselves to make it a habit? History pointed to the fact that men in all ages had been apt to neglect observation, and had allowed the plain evidence of their senses to be overruled by preconceived ideas. In illustration of this he cited the simplest operation in surgery—that of dressing a wound. For a lengthened period surgeons believed that wounds could not heal of themselves, but that every injury to the skin must go through four distinct processes before they could unite. They therefore prevented adhesion by the use of plugs and tents. Many would, no doubt, think that it would be impossible for such errors to be now committed. Of course in the present day this could not occur to the same extent, but he much feared that even now many a wide-spread belief rested more on authority than on observation.

The use of observation is to furnish facts from which conclusions may be drawn; but they must remember that though the observation might be correct, the inference may be erroneous. Hence the necessity for testing observation by experiment. In this method of investigation they were able to vary the conditions under which any particular fact could be observed, and by frequently altering the conditions they could often eliminate from the problem all sources of error, and thus insure the accuracy of their conclusions. The history of medicine abounds with instances where unaided observations seemed to point to conclusions which subsequent experiment proved to be erroneous. A single example would be sufficient to illustrate this. In 1786 John Hunter accidentally discovered that when death took place whilst the digestion of food was going on, the coats of the stomach were often dissolved by the fluid the organ had secreted during life. This discovery, although at first it excited great interest, was soon forgotten, more especially abroad. In the beginning of the present century great attention was bestowed in France on morbid anatomy. Pathologists were not a little surprised to find how frequently after death the stomach presented the appearance of softening. This took place in cases where, during life, no symptoms of disease of the stomach had been observed, and they were, therefore, led to infer that inflammatory softening of this organ was a frequent, insidious, and most fatal malady. Dr. Carswell, who was then studying in France, was made acquainted with these facts, and, remembering Hunter's observations, he at once surmised that the so-called softening of the stomach was a mere post-mortem effect and not the consequence of disease. He subjected the matter to the test of experiment. Two animals were killed immediately after having been fed. The stomach of one was removed and carefully washed, whilst the other was allowed to remain in the body filled with its contents. Two days afterwards both were examined: the stomach of the latter was found to be softened and partially dissolved, whilst that of the former was untouched. He would remind his hearers that in this case there was no fault as regarded the facts, but the inferences were incorrect; and this single experiment furnished a satisfactory explanation of an occurrence where unaided observation had only misled.

He had been particular in thus drawing their attention to the use of experiment, because he believed it would in the future be one of the chief means of investigation. Let them look back at the history of medical science during the present century. During the first thirty years there sprang up a school of earnest and enthusiastic workers in morbid anatomy. In every disease the condition of each organ was carefully scrutinised, and nothing could exceed the clearness and precision with which the coarser morbid changes were described. As a result of this knowledge, methods of physical investigation were invented, by which these conditions could be accurately distinguished during the life of the patient; and

to this school we owed the discovery of auscultation and the various other means of physical diagnosis.

Within the second third of the century improvements in the microscope placed in the hands of physicians a new instrument of research, which they were not slow to employ. Investigation was turned into a new channel, and the schools of North Germany replaced in fame those of France and Vienna. The discoveries then made seem to have placed medicine on a new basis, and vast were the expectations formed as to the future progress of medical science. Men attempted to base pathology on cells, fibres, and granules, and hoped to distinguish diseases by the microscopic characters of their products. But where do we now find ourselves towards the end of the century? We were no longer disputing as to the shapes and sizes of cells, or seeking for an explanation of cancer and tubercle in the forms of their cells or the sizes of their nuclei. Just as in former times investigations in physiology followed quickly upon discoveries in anatomy, so now the functional diseases of organs were claiming the attention of those who had nearly completed their inquiries as to the structural alterations of the human frame. Still more pressing was the necessity of ascertaining what is the nature of the many changes that occur in nutrition. Let them look at the discussions in the medical societies during the past year. They were not upon matters of physical diagnosis or morbid anatomy, but our leading men had been engaged in disputing as to the causes of blood diseases, such as pyæmia, or the nature of cancer and tubercle. And why did these discussions appear to have been so unprofitable? Simply because the various speakers had all been looking at the matters in dispute from an anatomical standpoint. They had been trusting to the microscope when new and improved methods of research were required. He believed that in the future, just as physiology was advanced by experiment and comparative anatomy, so questions in pathology would have to be settled by comparative pathology and by physical, chemical, and physiological experiments.

But there was a third habit of the greatest importance which he recommended them especially to cultivate—that of recording their observations at the time they were made. He had often been surprised how little medical students were in the habit of noting down their own observations. In every lecture-room they might be seen copying the remarks and opinions of their teachers; but how few seemed to be aware of the importance of recording what they themselves witnessed in the wards or in the post-mortem theatre. And yet a single fact carefully and honestly noted down might long after prove of incalculable value, although at the time it appeared of no importance. This might be well illustrated by reference to the history of the discovery of anæsthetics.

In 1799 Sir Humphry Davy performed some experiments upon himself with nitrous oxide gas. He found that when inhaled, instead of causing death as had been supposed it would do, it only excited a species of intoxication, during which insensibility to pain was the most prominent character. For the next fifty years no attempt was made to turn this discovery to practical account till 1844, when a Dr. Wells of America had a tooth removed whilst under the influence of the gas. The operation was performed without pain, and the experiment was successfully repeated on others. A Dr. Morton employed ether as a substitute for the gas, and shortly afterwards Sir James Simpson introduced chloroform, which soon came into general use. Since that time the method of preparing nitrous oxide has been improved, and it is now universally employed in the extraction of teeth, and for other operations which can be rapidly performed.

Now, what he wanted them to observe was that this, which is perhaps the most valuable discovery ever made in medicine, was the result of observations noted down fifty years before they were turned to practical account. The experiments had been performed with a totally different object in view, and in all probability they would never have borne fruit had it not been for the careful record left us by their author. He recommended that in such records as they should make, they should be careful to keep their minds free from preconceived ideas. They must make it a habit to mark down only what they saw, to keep to the simplest language, and avoid all words that implied a theory. They should carefully separate their conclusions from their observations, for subsequent experience might prove the former to be incorrect, whilst the facts would remain good, and might hereafter lead to results of the greatest value.

He had been induced to lay before them these remarks because he felt it was especially necessary in the present day to impress upon their minds the advantages of self-education. Numbers were entering the profession who seemed to think that books and lectures could supply all the knowledge they need possess, and that to pass an examination with credit was the only aim of their student-life. Books could never supply what could only be obtained by observation and experiment, and we could never by any method of examination test the acuteness of perception and the soundness of judgment that ought to characterise the physician, or the coolness, courage, and readiness of resource that are requisite for a surgeon. These could only be gained by patient observation and long experience. It was in affording them a field for acquiring such qualities that the London Hospital was especially valuable. Already one of the largest, it would, when the new wing was completed, be the greatest hospital in this country. The enormous number of accidents annually treated within its walls had long rendered it famous as a surgical school, whilst the nature of the population by which it was surrounded, the immense extent of the out-patient practice, and the number of special departments it contained, would give them opportunities for the study of medicine which could nowhere be surpassed.

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ABSTRACT OF THE

## INTRODUCTORY LECTURE

DELIVERED AT ST. MARY'S HOSPITAL

By EDMUND B. OWEN, M.B., F.R.C.S., etc.,
Late Senior House-Surgeon to the Hospital.

The Introductory Lecture was delivered by Mr. Edmund Owen, who, addressing his hearers as "Fellow-students of Medicine," expressed himself sensible of the honour and responsibility of being entrusted with the delivery of the introductory address. He believed that a formal introduction of the student to his work was not only proper, but also advantageous. He thought that it was well calculated to rouse the student to a sense of his responsibility, and compared it in its intent to the well-known address delivered by Queen Elizabeth at Tilbury Fort. The chief part of the time was taken up with advice to students as to the manner in which they should commence and carry on their studies. Mr. Owen advised them to be as practical as possible in all that they learnt, and to this end he assured them that anatomy should only be studied in the dissecting-room, and medicine and surgery in the wards and in the out-patient department. It was of no use to say, "I will build up a theory now, and work it out in practice afterwards." Of what service would theory be to the practitioner who found himself, early in his career, alone at the bedside of a patient who is in a critical condition? He advised them to work steadily in the dissecting-room, making themselves as independent of a demonstrator as possible; for that information which they acquired by the use of the scalpel and manual, by their own individual effort, they would be most likely to remember. Mr. Owen advised them to pay particular attention to the anatomy of the joints, as it was this knowledge especially which would be of extreme use to them in practice, and would give them a superiority over the empirical "bone-setter," who would, however, often cure by his rude measures those patients whom the surgeon had expressed himself to be unable to relieve. He spoke of the value of the study of anatomy as teaching the student how to observe—a very useful faculty,—and entered somewhat fully into the advantage of being able to see the beauties of form, line, and design in the works of nature. He expressed pity for the student who could not appreciate the grandeur of the existence of great strength in the spinal column, together with freedom of movement and grace of curve. Some students, he knew, could see nothing more in it than difficult anatomical detail. He cautioned his hearers against looking too deeply for the cause of disease, and against placing too much reliance on the mere administration of drugs.

He compared students entering at a medical school to men about to start upon a four-mile race, and warned them that if they were *over-zealous* about making rapid progress at the commencement they might not reach the post. He suggested that those students who had acquired some slight knowledge of their profession before entering should not presume upon it, and think that they had less need of rudimentary technical instruction than others. The lecturer then went on to treat

on the subject of the cultivation of the intellect, remarking on the value of a well-regulated imagination and its results in the cases of Columbus, Harvey, and Jenner. He also spoke of the improving of the memory by continuous exercise, and of the aid to be derived from a judicious use of *memoria technica* by a weak or overstocked memory. He was well aware that some despised it as intellectual trickery; but in these days of examinations, when the medical student is required to know very much of what will be of but little use to him in practice, it had become more than ever necessary. He grieved much over the present system of imparting medical knowledge, saying that the "signing up" plan entailed a fearful waste of the student's time. Why, he wondered, was a council of education so short-sighted as to force students of each year into lecture after lecture, without seeing if they were most benefited thereby? He thought men should be forced to attend one or two courses each session, so that their presence at their medical school could be insured, but under present arrangements they had the least possible time to spend on dissections, one of the most important parts of their education.

Mr. Owen remarked upon the waste of *personnel* in teaching, and on the disadvantages under which science laboured through there being so many medical schools in London, and looked forward to the time when they should be fused into two large and strong educational centres. He spoke out freely upon the growing evil of "special hospitals," and of the effect which specious advertisements had on the abuse of money intended for medical charity, and upon the withdrawal of special diseases from general hospitals where they were required as teaching material.

The chief part of the address was taken up in advising and cautioning the students on matters most important to their success in their medical career. Then, imagining the four short years of study to be over, he examined critically the public services as offering advantageous employment. He said that Lord Cardwell's warrant had stripped the Army Medical Service of all its old position and *prestige*. The surgeon could remain now but five years with his regiment, and was not allowed to attend his own sick in hospital. Of so slight importance was he now considered that it mattered not whether he wore the uniform of the regiment, whose head-quarters afforded him a precarious lodging, or not; in fact, the regimental surgeon must now admit himself to be a "waif," and thus indeed was he regarded by his *half*-brother officers. The lecturer admired the liberal "sop," which consisted in conferring upon all assistant-surgeons the title of "surgeon," without offering any additional pay. He said that the prospects offered by the Naval Medical Service were much more agreeable, for that the whole affair was at present in such a state of "admired disorder" that a change must be imminent; and change *could* only be for the better. He honestly recommended the Indian Service, which, he said, was paternal and generous in its dealing. It acknowledged the fact that if good medical officers were obtained they must be treated as gentlemen, and reasonably treated in the matter of pay and promotion.

He also said that those who should eventually find themselves accepting the hard work and meagre pay of a Poor-law appointment, must never lose sight of the fact that the poor were possessed of sensibilities as acute as others, and that they should never be regarded merely in the light of subjects for clinical investigation.

Having spoken on the relationship existing between science and religion, Mr. Owen continued—"But in the course of your studies, as you watch nature constructing and repairing, admiring her boundless liberality in all the vital processes, with her equal provision against waste, and as through the ascending classes of the animal kingdom you follow her handiwork from the microscopic jelly-like particle to its perfection in man, do not allow your handful of knowledge to blind you to the existence of a Divinity that is shaping all her ends. . . . Rather, having placed such an honest belief high in your creed, and fearlessly working on, follow this advice, given long since by a learned physician:—

> "'Search while thou wilt, and let thy reason go
> To ransom truth, e'en to th' abyss below;
> Rally the scatter'd causes, and that line
> Which Nature twists be able to untwine:
> It is thy Maker's will.'"

Mr. Owen then called attention to the first aphorism of Hippocrates, which is inscribed in large golden characters in the anatomical theatre, and to the corresponding though t from Longfellow—("Art is long: time is fleeting"), whic h had been placed, he said, to catch the wandering eye, immediately around the clock. He brought his address to a clos by quoting the rest of the verse, as well as the following from the same poem:—

> "Lives of great men all remind us
> We can make our lives sublime,
> And, departing, leave behind us
> Footprints on the sands of time."

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ABSTRACT OF THE

# INTRODUCTORY LECTURE

DELIVERED AT MIDDLESEX HOSPITAL

By ANDREW CLARK, F.R.C.S., etc.,
Assistant-Surgeon to the Hospital.

The Introductory Lecture was delivered by Mr. Andrew Clark. He began by referring to the 1st of October as a day for which medical men had a special regard, and its anticipation was pleasant, as they met so many old friends and acquaintances who assembled at their *Alma Mater* to hear the usual inaugural address. He then addressed himself to the students, and particularly the first-year's men, mentioning the different branches of the profession they might take up. In speaking of the army and navy, he hoped the Government would not permit an idea to gain ground that these services were not sufficiently good openings for young surgeons; of this there appeared to be at present some danger. The importance of preventive medicine was spoken of, and all were urged to study it, even though they did not make public health their speciality; and in speaking of scientific study as a branch of the medical profession, the lecturer pointed out that though our knowledge of pathology and means of diagnosis had of late years much improved, still we were very backward in therapeutics. In acquiring scientific knowledge they must not forget, in the exercise of their duties, charity and true love for their fellow-men. Special stress was laid on this word charity, because the lecturer thought there was a want of charitable feeling existing among medical men themselves, and it was a word all should consider well in its many and varied meanings. He pointed out to the students the necessity of practical knowledge, but at the same time they must not forget that a scientific and theoretical knowledge was also required to raise them above the level of quacks.

He went on to say that they had two great aims before them: to obtain a legal qualification, and to acquire such a knowledge of their profession as would give them a self-consciousness that they were able to combat any emergency. The two ought to go together, and he hoped that when the conjoint scheme came into operation the possession of a diploma would be a guarantee of thorough efficiency. He then went through the various subjects of study, and in speaking of anatomy said the only place to learn it was in the dissecting-room, where three or four hours a day should be spent. He thought a student could acquire a sufficient knowledge of physiology without resorting to vivisection, which should only be practised for the purpose of making discoveries, and not for demonstrating known facts.

In referring to hospital work, the lecturer said it should be begun at once, and advised the students to make up their minds to devote a short portion of every day to it, although, at the same time, if any could afford a year before registering for preliminary scientific studies, so much the better.

They were urged to help one another in their work, and not to be afraid to explain to a fellow-student what he was ignorant of for fear of losing a prize. This was one of the objections to class prize-giving, and a very reasonable one; but if they acted on the word "charity," and recollected there was one prize—the acquirement of knowledge—open to all, it would not occur.

In speaking of specialities so-called, it was pointed out that no man could be a good specialist without a fair knowledge of disease generally; and every general practitioner should make himself so far acquainted with special diseases that he would not mistake glaucoma for simple conjunctivitis, or pronounce a case of throat-deafness incurable.

The students were advised to hold as many hospital appointments as they were able to obtain, and to begin at once if they had seen any practice, or in six months if they had not, as out-

patient dressers; and in fulfilling the duties of those offices they were to recollect that they had the good of their patients as well as their own good to consider. Hospitals were built for patients, and students were permitted to make use of those patients for their instruction for the benefit of others; but they must be treated with every kindness and consideration, and on no account subjected to unnecessary examination if it either prolonged their illness or endangered their life.

In speaking of the subject of cramming for examinations, the lecturer said he feared it was very much in vogue at the present day, and even necessary for some examinations. It was not, however, necessary for the ordinary medical examinations, and those whose knowledge was acquired by its aid could not be efficient practitioners. Frequent examinations were of great service, and opportunities were offered in the class examinations held every six weeks, at which the students should not fail to be present.

The advantages to be derived from becoming members of the Students' Medical Society were pointed out; one of the most important of which was the facility it tended to give in speaking as well as in composition, to those who prepared and read papers. It was established in 1774, and is therefore the oldest of the kind in London. Last January its hundredth anniversary was celebrated by a *soirée*.

In speaking of recreation, the lecturer told his hearers that they must recollect that strength, exercise, and open air are as necessary for them as study. They must make up their minds that pleasure shall be secondary to duty. He thought sports and pastimes were competing rather too successfully with studies in our schools and colleges; but as medical students they were no longer schoolboys, and the engrossing and never-ending study on which they had entered should prevent too great indulgence in them. They were urged to maintain the credit and reputation of the profession and the Middlesex Hospital, to both of which they must consider themselves as now belonging; to be attentive, diligent, and punctual, in order that their own time and that of their teachers might not be spent in vain. Without they were willing and anxious to learn themselves, they would do but little good; a man must teach himself his profession; he can only be taught how to learn it. They were told to gain knowledge, and to use that knowledge as a foundation on which to build their future lives and actions, so as to win the esteem of their fellow-men.

The lecturer then spoke of the loss the profession and hospital had sustained in the death of Dr. John Murray, whose bust had just been placed in the Museum, as a testimony of the respect in which he was held by his friends. A scholarship had also been founded in the University of Aberdeen, which, under certain conditions, was open to students of the Middlesex Hospital.

In concluding, the lecturer said we should be encouraged to persevere when we think of the great men who have adorned our profession, mentioning particularly Sir Charles Bell, who had been surgeon to the Middlesex Hospital for twenty-two years; and we know we have the same opportunity as they had.

"Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time.
Still achieving, still pursuing,
Learn to labour and to wait."

ABSTRACT OF THE

## INTRODUCTORY LECTURE

DELIVERED AT ST. THOMAS'S HOSPITAL

By WILLIAM MAC CORMAC, M.A., F.R.C.S.I., etc.,
Surgeon to the Hospital.

The Introductory Lecture was delivered by Mr. William Mac Cormac, Surgeon to the Hospital, who, after some preliminary remarks, dwelt on the fact that the student must not depend exclusively for instruction on others, but must also, and most patiently, learn to instruct himself. To do this efficiently he should have received a well-grounded preliminary culture. The lecturer pointed out that without such previous training a man is liable to be distanced in the race of life; that the student who finds himself required to fill up the deficiencies of a defective education, as well as to master the intricate details and manifold bearings of a great profession, will prove too heavily weighted either to do justice to himself or the calling he has chosen. Mr. Mac Cormac combated the idea that in respect of the task before him the termination of the student's career would see the end of his exertions. He showed that excellence is not thus to be compassed, but must be aimed at, struggled for, without end. He pointed out that effort itself conferred a sure reward, a disciplined intelligence, and a well-directed will. He adverted to the relations of the teacher with the taught, the genial bearing of the one influencing the apt intelligence of the other; that there was between them a community of purpose which, rightly exercised, would lead to the best results; and that the student had no better friend or confidant than his teacher.

The long career of the ancient foundation of St. Thomas's afforded Mr. Mac Cormac the opportunity of giving some interesting details of the position of surgery and surgeons in bygone days; that there was specialism, and of a very bad form, then as now. He pointed to some of the extravagances that were then committed, and the absurd length to which the belief in certain remedies was carried, quoting the somewhat amusing instance of a physician who, having refused to be bled in his extremity, was anathematised with the depletion which it was hoped he might have to undergo in a different world. The lecturer forcibly dwelt, however, on the debt of gratitude we owe to the worthies of the past, and to the immense difficulties which they not only encountered but overcame, which urge us

"Ever to be mindful of the faithful dead."

Mr. Mac Cormac was justly appreciative of the enormous contributions made to modern science on the part of Continental practitioners, and dwelt upon the necessity of an acquaintance with the languages in which those labours are recorded.

"There are," he said, "workers everywhere; but how are we to benefit by their work unless we understand their language? We may, indeed, avail ourselves of translations, but these at best are but diluted transcripts, bereft of all the life and verve of the original, and mostly come too late to prove of much advantage. We are, in fact, somewhat prone to wrap ourselves up in our insularity, if I may adopt the expression. Insularity may be an admirable thing geographically speaking, but in science it is too often fatal. The long list of names—too long to enumerate—of German, French, American, and English surgeons to whom surgery and the world are indebted is securely registered in the record of their fame."

The great efforts which had been made to mitigate the horrors of modern warfare were spoken of by Mr. Mac Cormac; and he enlarged on those efforts as one might who had witnessed something of the evils they are intended to assuage. He showed how much our times are in advance of the past, but he also showed how even the immense resources of modern military surgery find themselves unequal to cope with the horrors of such modern battle-fields as those of Mars la Tour and Gravelotte, when 42,000 men fell dead or wounded on the German side alone.

In conclusion, Mr. Mac Cormac urged the student to cultivate, at once as a solace and recreation, some pursuit not immediately bearing upon his profession. He pointed out that of many within reach none is perhaps better deserving attention than the cultivation of general literature, which, as Sir John Herschel has said, places its possessor in contact with the best society of every period of history, makes him a denizen of all nations, and a contemporary of all ages.

ABSTRACT OF THE

## INTRODUCTORY LECTURE

DELIVERED AT WESTMINSTER HOSPITAL

By JOHN B. POTTER, M.D., M.R.C.P., etc.,
Obstetric Physician to the Hospital, etc.

After a few words of welcome to the students, and alluding in feeling terms to the sad loss sustained by the school in the deaths of Dr. Bird and Dr. Anstie, both cut off in the midst of active work and in the full vigour of professional life, the lecturer went on to speak of the profession of medicine, and to congratulate those who had embraced it on their choice of so noble a life. But he told them that they must be certain of the truth of their choice, as they would find it a hard-

working profession, success difficult of attainment, State rewards but few, and the chances of making a fortune infinitesimal. He continued—"To be honoured professionally, however, is open to you all; and it is rare that honest work remains unrewarded in this way. It is a source of pride to us, that, of the four seats at the Censors' Board of the College of Physicians, two are at present held by the senior members of our staff—Dr. Basham and Dr. Fincham."

After giving definitions of a doctor from two authors, he went on to say, "I give you these in preference to others, as you will probably for the most part occupy the honourable position of general practitioners; and remember that some of the best and most useful professional work has been done by them. To give one instance only, the immortal discoverer of vaccination laboured as a general practitioner in the country. Also that in the present day a strong feeling is being manifested by many against the hard and fast line drawn between the different departments of practice, and that even should you in the future desire to become specialists, you cannot successfully practise as such without being good general practitioners." After reminding his hearers that they are to be medical students, he spoke with regret of the abolition of the old-fashioned apprenticeship, believing that a year or so occupied in this way would be of great advantage. "The seeing a great deal of practice, and especially the minor and petty cases, which make up to a large extent the bulk of everyday work, also the minor diseases of children, scarcely ever seen in a general hospital; the handling of drugs and the art of prescribing, never successfully learnt in any other way; the traditions and etiquette of the profession; and last, not least, the opportunity it affords the young man to ascertain whether he really likes or dislikes the profession of his choice, as he sees, in addition to the purely medical point of view, the kind of daily life that he must expect if he goes on with it. A good deal of elementary knowledge can also be gained of botany and chemistry during this year, and some acquaintance with the bones." Turning for a moment to address specially the students making their first appearance in the theatre, he insisted strongly on the necessity for order in their medical studies, and especially at first to devote themselves mainly to anatomy and the dissecting-room, afterwards taking up physiology, and especially to work well in the new physiological laboratory, where they would have advantages of experimental research such as were not enjoyed by their predecessors in the school; thus to give their whole time, up to the close of the second winter session, to these elementary subjects as the groundwork of medical knowledge. Supposing that the student's diligence has been rewarded by passing his first examination, his mind is now set free for the more practical work to follow. Speaking on the subject of midwifery, he dwelt on its importance as the keystone to practice, and laid great stress on the necessity for a sound practical knowledge of the subject, and the attendance on as many cases of labour as possible. He spoke also of the impossibility of attempting to teach the diseases of women and children as part of a three months' course of midwifery.

The importance of taking notes in the class-rooms, and also in the wards, was strongly insisted upon. "These golden opportunities may never again occur to you in your lives; this aggregation of cases in the wards under skilled supervision you will only be able to avail yourselves of for a limited time. Even if you never look at your case-books again—which I am far from thinking will be the case,—these short histories of disease are better fixed in your mind from having been committed to writing at the time. At this time also attend the special departments now carefully formed and arranged within this building, so that your time need not be wasted in running over the town to the so-called special institutions." The advantages of the Westminster Hospital as, *par excellence*, a small school was then dwelt upon; for, though a student of robust health, commanding talents, and great industry might push his way to the front in a large school, it was far otherwise with many others. In a small school, where there is no crowding, everyone has his chance, is brought more closely into contact with his teachers; in the wards he sees all the cases without having to fight for the privilege, and in the latter years of his student life is able to hold the various appointments and have the direct charge of patients."

Those finishing their curriculum or about to enter into practice were given advice as to their duties and responsibilities, not to practise their profession in a mere routine way, as drug distributors, or as a tradesman selling his goods, but to practise it intellectually, letting every case with its own special features improve his mind, if not adding to the general stock of knowledge. Even in a remote country district good work may be done, and the late Dr. Uvedale West was instanced as having brought out a most admirable monograph in the midst of a large and struggling poor practice. "As to your duties, the first is to cure your patients, not to devote yourselves too scientifically—as the German physician, who, going round his wards, told his students what condition the various organs would be found in after the death of the patients, and forgot to prescribe for them. For this cure it is of paramount importance to ascertain what is the matter with your patient, uncertain diagnosis leading to very uncertain treatment; but while making use of the instruments of precision which we in the present day can bring to our aid for this purpose, do not neglect the old-fashioned art of observation, remembering always that medicine is, and must be to some extent, an empirical art, and not to be despised as such, the introduction of quinine and other drugs into practice, and the important discovery of vaccination, being the result of observation alone. Bear constantly in mind the potence and impotence of our art, watch Nature closely, and give her her way when she acts well. It is far easier, and requires less experience, to do something actively than to watch patiently. But if you cannot cure your patients, at least do no mischief to them, nor be guilty of that quackery which says 'I can cure,' when we know the disease to be an incurable one. While acting conscientiously in this way, do not neglect moral treatment, for in the many cases grouped under the name hysteria, a judicious medical and moral treatment will often largely benefit or cure, whereas the reverse plan of telling the patient there is nothing the matter will only aggravate the disease. However, whether you can cure or not, cultivate a kindly and genial manner; even in the sad and unfortunate cases where we can do little but alleviate, a gentle and sympathetic manner will often cheer the poor sufferer." The advantages of preventive medicine were then insisted on, and the value of the appointments of medical officer of health, not only to the country at large, but as some of the few prizes open to the medical profession, pointed out. In a similar way the duty of warning people against baneful habits, as drinking, opium-eating, immorality, etc.,—prevention better than cure being again the watchword,—was impressed as most fit; the same also being exemplified in the cruel injuries left after protracted and badly managed labours, and the more early application of instrumental aid was strongly urged in all suitable cases. To the busy practitioner the necessity of taking rest—at least an annual holiday—was strongly advised, the remainder of the year to be devoted to hard work if success is to be attained; for though this is sometimes dependent upon accidental causes, it is in the main the reward of hard work and industry. "The number of deaths in our profession during the last year from overwork ought to be a warning to us all." "A word as to your relations to each other. Avoid, as far as possible, medical squabbles. These only bring our profession into disrepute. Collisions and differences of opinion must occur in practice from time to time, but it is always better in such cases to suffer than to injure." After quoting the opinion of the good and great Sydenham as to the responsibility of the medical practitioner, the lecturer, after wishing success to them all, concluded in the words of our great humourist—

"Come wealth or want, come good or ill,
Let young and old accept their part,
And bow before the awful will,
And bear it with an honest heart,
Who misses or who wins the prize.
Go, lose or conquer as you can;
But if you fail, or if you rise,
Be each, pray God, a gentleman."

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ABSTRACT OF THE

# INTRODUCTORY LECTURE

DELIVERED AT THE SHEFFIELD SCHOOL OF MEDICINE

By J. C. HALL, F.R.C.P. Edin., etc.,
Senior Physician to the Sheffield Public Hospital and Dispensary.

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THE Introductory Address was delivered in the lecture theatre, before a large audience, by Dr. J. C. Hall, Senior Physician to the Sheffield Public Hospital, and Lecturer on the Principles and Practice of Medicine at this School. Dr. Hall said that of necessity his thoughts turned towards the students present—the young men who would occupy the places of the lecturers

when, in the ordinary course of nature, they had passed away, to say before assembled worlds how they had employed the talents committed to their keeping, so as best to promote the prosperity of their fatherland, the happiness of their fellow-townsmen, and the glory of their God. He pointed out how knowledge might truly be described as power, insomuch as it placed a microscope before the eyes of the minute, a telescope in the hands of the distant observers, to aid in their investigations. Knowledge was necessary to all the professions and to all the resources of civilised life. The mind, which our philosophy separates into various capacities, was but one essence and one life; and therefore, by a judicious system of education, all our principles were made to grow at once by mutual and harmonious action, just as the several parts of a plant spring up and come to perfection together. If any student wished to ask what was the use of so much knowledge, he (Dr. Hall) answered, What was the use of so much life? and if the mind be not well and profitably employed, how were we to live out our three score years and ten?

> "That life is long which answers life's great end;
> The tree which bears no fruit deserves no name;
> The man of wisdom is the man of years."

The prayer, "Give us this day our daily bread," applied to the mind as well as to the body, and therefore the students were urged to feed their minds and to cultivate their intellectual powers; to love knowledge and its acquisitions with a love coeval with their lives; to love that which would comfort and adorn them; that which was a friend no enemy could alienate, no despotism enslave; that which was in society an ornament, in solitude a solace, on foreign shores an introduction; that which would, under all circumstances, cling to and never forsake them; for had it not truly been said—

> "You may break, you may ruin the vase if you will,
> But the scent of the roses will cling to it still."

Next, what the medical world had gained from the new inductive philosophy of Lord Bacon, as it was termed in the reign of Charles II., in common with the rest of mankind, was dwelt upon at considerable length. Dr. Hall said it had lengthened life; it had mitigated pain; it had extinguished diseases; it had annihilated distance; it had, by the electric telegraph, shown the dream of the poet to be no fiction when he wrote—

> "Speed the soft intercourse from soul to soul,
> And waft a sigh from Indus to the pole."

It had taught how the sunbeams could be made to kiss the face of her we loved, and to present us, thanks to the photographer, with a picture such only as the sun could draw. In concluding a long address, Dr. Hall urged on the students present the importance of intellectual culture if they wished to hold their own in that general society to which their diploma, when obtained, would be a certain introduction. He trusted they did not look upon their calling in a £ s. d. point of view. If such be their object, he said to them, "Abandon it at once—take to steel melting, or buy a share in a good bitter beer brewery." Theirs was a noble profession, but a very poor trade. It had been too long the fashion to speak of this profession slightingly—to term it poor and degraded. It had, however, moments of pleasure, which never fell to the lot of the proud, uneducated rich. For his (Dr. Hall's) own part, he could say, and say truly, the happiest moments of his existence—the greenest spots in life's dull waste—had been those when, by the exercise of the noble art of medicine, it had been his lot, under the blessing of the Great Father of the Universe, to restore relatives to those near and dear to them, who had long been sorrowing almost without hope. Dr. Hall concluded by saying—"Poor the medical profession is as regards the 'flesh-pots' of this world; slighted it has been by those who ought to have known better; but degraded I say it never has been, and never can be, so long as by giving sight to the blind, making the deaf to hear, and the lame to walk, and by restoring reason to the miserable victims of insanity, it proves incontestably that its foundations are those of true science, and that its one sole object, its one sole aim, is the good of our fellow-creatures."

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Tramways for Hospital Wards.—During a recent discussion on hip-joint disease, M. Laussedat observed that in cases which involved months or even years of keeping in bed, an excellent plan followed in the Swiss hospitals is deserving of imitation. This consists in the adapting a tramway to the wards so that the bedsteads may be removed from the ward into the open air and sun.—*Lyon Méd.*, September 27.

## ORIGINAL COMMUNICATIONS.

### THE CARBOLIC ACID TEST FOR ALBUMEN.

By A. ERNEST SANSOM, M.D.

In your article of September 26, "On Tests for Albumen in Urine," you say of the carbolic acid test—"The chief objection to it, as far as we know, lies in the unpleasant smell of the carbolic acid." Permit me to record that it is also, in my opinion, entirely unreliable. It will often fail to detect albumen in urine when the latter is present in considerable proportion; it will produce a deceptive coagulum when there is no albumen at all.

Long before M. Méhu promulgated his test (*Journal de Pharmacie et de Chimie*, February, 1869), I had tried with great hope carbolic acid as a practical test for the presence of albumen in urine. I soon found, however, that its employment was beset with fallacies. I have described these in my book on carbolic acid ("Antiseptic System," p. 12). In urine of high specific gravity a dense precipitate is produced by the aceto-carbolic solution whether albumen be present or no. In saline solutions the same thing occurs. I do not believe it possible to discriminate such an appearance from an albuminous coagulum. I have in a large number of cases tried the aceto-carbolic solution side by side with the well-known tests for albumen in suspected albuminuria. The indications have been utterly contradictory, and I cannot but advise that the carbolic acid (so-called) test be discarded.

Moreover, I would refer to an entirely independent opinion. In the *American Journal of the Medical Sciences* for July, 1872, Dr. Bill gives an able *résumé* of an extended investigation of carbolic acid, its properties, uses, etc. He says—"It is pretty generally accepted that carbol" (the term he uses for carbolic acid) "precipitates albumen, and this supposed property of carbol has even been proposed for employment as a test for albumen and the like, in place of nitric acid. Our results are opposed to this view." He considers it established that carbolic acid in the cold forms no compound with albumen, and when carbolic acid does precipitate albumen it is by abstracting its water.

London.

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### THREE CASES OF DIPHTHERIA

OCCURRING WITHIN A RADIUS OF 100 YARDS: CAUSE DISTINCTLY TRACED TO ONE SPOT.

By JOHN HIGHET, L.F.P.S.G., etc.

Kindly allow me space to describe three out of a large number of cases of diphtheria occurring in my practice within the last twelve months. My object in drawing special attention to these three cases is this: from several a practical lesson was taught, and the cause removed, but in those which I am about to describe the poor sufferers were seized with the same disease, the cause originating from the same spot in the three individual cases. The flagrant source of evil is a large open dunghill, twelve feet by eighteen feet, containing all sorts of filth, and in one corner of it I observed especially a pool of stagnant fluid (water I daren't call it). This structure is situated in an open court, behind a house four storeys high, constructed on the usual pernicious "but and ben" Scotch system, containing sixty-seven inhabitants "all told"—men, women, and children, "especially children"! At the extreme end of the open court there is a row of workmen's cottages, and a narrow road intervenes between the last-named dwelling-places and a crescent of "self-contained" houses. My first case of diphtheria caused by the odours and poison from that open dunghill occurred in that crescent, a description of which I subjoin.

*Case* 1.—M. G., aged eight years, a stout healthy girl, had presented all the symptoms of diphtheria four days previous to July 20, 1873, the day upon which I was called. The patient when I arrived was reclining in her mother's arms, and breathing with great difficulty; the pulse was 130; temperature of body 105°. On examining the throat, I observed the tonsils to be completely covered with the characteristic yellowish-green membrane, and the uvula was in the same condition. Here, then, was a decidedly marked case of diphtheria, having run on to the very last stage without the employment of any active treatment except the application of poultices to the

outside of throat and chest; these I recommended to be continued, with the addition of eight-grain doses of chlorate of potash mixed with tincture of iron to be administered every half-hour. This treatment was perseveringly continued until the afternoon of the same day, but the disease went on with unabated vigour. The parents begged that something more should be done. I mentioned tracheotomy as a last resource, and the probable result, informing the parents that it might prolong the patient's life for a number of hours, or even a day or two, but nothing more could I expect from the operation. They having expressed a desire that it should be done, Dr. Watt, of Ayr, was called in consultation, and the operation performed; but the child gradually sank, and died the following Wednesday from sheer exhaustion. I may mention that after the operation, constitutional treatment was followed out, with a liberal allowance of milk, beef-tea, and sherry. The sanitary condition of house and immediate surroundings was good. The distance of the house from the dunghill is about 100 yards.

*Case* 2.—In this case I can even more distinctly trace the cause to the same spot which gave origin to the preceding one. On February 27 of this year I was called to see M. M., aged eleven. The patient lived with her parents in the large building previously described, and was lying in a bed near to a window which directly overlooked the dunghill. On my opening the window-casement, the effluvia from the spot was nauseating. On examining the patient, I found to my extreme chagrin that the disease was quite as far advanced as in the previous case, but I at once ordered the application of poultices to the patient's chest and outer surface of throat, also the internal administration of carbolic acid in minute doses mixed with a diffusible stimulant in combination with the compound infusion of gentian; also milk, beef-tea, and sherry. From February 28 until March 2 the disease seemed to be partially under control, large shreds of the "wash-leather"-like membrane having come away, and the patient being able to swallow with greater ease; but on the night of March 2, and until the evening of March 5, when the patient expired, the disease seemed to have gained complete precedence over the treatment.

*Case* 3.—This case, situated in the same crescent where the first that I described occurred, I am pleased to say was attended with a happier result than in the two preceding cases, and I attribute that result simply to my having been called before the disease had made any "headway." On the 25th of last month (June, 1874) I was called to see, at eight o'clock in the evening, W. Y., a robust boy aged three years. His mother mentioned to me that for some days previous he had been in a languid condition, not able to take his food, and had shown no desire for his ordinary amusements; in fact, was "out of sorts." I found on examination that he had a pulse of 120; temperature of body 104°; and on looking at the throat I observed on both tonsils four or five little white specks, each about the size of a pin-point. This, again, was a clear and palpable case of diphtheria. I examined the general sanitary condition of the house, and more especially the water-closet, which was situated outside of a glass door on the landing or staircase, and found the house in a cleanly condition, and no odour was escaping from the water-closet. I inquired when the drains connected with the house were cleaned, and was told that they had been thoroughly overhauled in the spring of this year and left in a clean condition. Where, then, was the cause to be traced? Why, my old enemy the dunghill again, across the street, whose odours are gently wafted by a northerly breeze right in at the glass door which I have previously mentioned; and I more readily came to this conclusion seeing that these three cases which I have described occurred within a radius of 100 yards, although at different periods, and more especially when the sanitary conditions of the individual houses were found pure. In the treatment of this case, I immediately administered four-grain doses of chlorate of potash every half-hour, mixed with tincture of iron and spirits of chloroform, when the disease was kept powerfully under check up till 4.30 a.m. on the 26th, when I again visited the boy. From that time until 12 a.m. of the same day the disease seemed again to be gaining ground; for the little patient was very drowsy, he would not swallow, was annoyed at the least noise, his breathing, too, was difficult, and at last he actually refused nourishment of any kind. But during this period I waited by his bedside, and forcibly administered the chlorate of potash and iron, in the intervals giving milk with a little sherry, when, at 5 p.m. of the same afternoon, the patient gradually assumed a more natural appearance, all the prominent symptoms rapidly subsiding; and at 10 p.m. the patient to all appearance was in his usual health. Of course I was not to be deceived by mere outward looks, and the medicine and nourishment were perseveringly continued with, but from that evening until yesterday (June 29), when I visited him, and found him running about the house in perfect health, his recovery was gradual but sure. He is still getting a mixture of chlorate of potash with liq. cinchonæ in case of relapse, with a plentiful supply of beef-tea, sherry, and milk.

I have fully described these cases, and proved that the dunghill was the original source of evil, although situated at a distance of 100 yards from the houses which form the crescent; and I earnestly trust that when this communication is brought under the notice of the sanitary authorities here, it will have the effect of stirring them up to activity, and cause the removal of such a glaring evil from our midst. If it has that beneficial effect, I shall be contented and satisfied, and by your insertion of this notice a benefit will be conferred on suffering humanity here. If nothing be done, then I fear very much that before the summer passes away it will be my painful duty to record another batch of diphtheritic cases arising from the same cause.

Troon, N.B.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## UNIVERSITY COLLEGE HOSPITAL.

### CASES UNDER THE CARE OF MR. CHRISTOPHER HEATH.

(*Continued from page* 363.)

*Case* 3.—*Loose Cartilage in Knee-joint, consisting of a piece of the Articular Cartilage—Subcutaneous Incision with Tenotome—Subsequent Removal—Suppuration in Thigh—Cure.*

George D., aged 24, butcher, was admitted January 22, 1874.

*History.*—About nine years ago the patient had a knock on the knee which lamed him for a few days, but the effects of which soon passed off. Ten days back he noticed some pain on first getting out of bed, and on starting to walk after sitting down: and last Monday, while sitting before the fire and vigorously rubbing his knee to see if that would do it any good, he noticed a foreign body of some sort apparently in his knee-joint. He was often nearly thrown down by this slipping while he was walking.

*Present Condition.*—Patient has a loose cartilage, about two inches and a half in circumference, moving about the joint.

January 28.—Yesterday, on admission, the cartilage was fastened with a piece of strapping and a pad, to prevent it slipping back into the joint. Mr. Heath, in the afternoon, having previously just passed his knife up a short way to make a bed for the foreign body to occupy, opened the joint as if he were performing tenotomy, and pushed out the cartilage into the bed prepared for it. It was there fastened by strapping.

31st.—Yesterday Mr. Heath, having found the cartilage in the bed where he had carefully placed it, cut down upon it transversely, making an incision about an inch in length. It was not quite so superficial as it seemed, and took some little time in being carefully dissected out. When extracted, it appeared to have a nucleus of bone, probably chipped off the condyle of the femur, and surrounded by a belt of cartilage. It was an inch in length, three-quarters in breadth, and had an irregular edge. The wound was dressed with strapping and collodion. This morning the patient seems in considerable pain; had no sleep last night. Some serous oozing from the wound.

31st.—This morning patient is still feverish and poorly. Temperature 101·2°; pulse 88. A blush, an inch or an inch and a half broad, round the wound. A considerable quantity of pus squeezed out. No fluctuation in knee-joint, which, however, appears somewhat swollen. Great pain on the least pressure.

February 2.—Patient slightly better. Knee-joint quite free from inflammation, but great pain and some swelling extending on the thigh.

3rd.—Temperature 99·4°.

5th.—Patient decidedly better than on Tuesday. Inflammation subsided in great measure. Less pain and more sleep. Patient, however, complains that he always wakes with a headache in the morning, and that his bowels are obstinately confined. Pil. col. co. gr. v.

7th.—Seems much better; the swelling decreased, and the pain almost gone. Suffers still from constipation. Ol. ricini ℥j.

10th.—Yesterday patient seemed very much worse. There is a hard brawny swelling on the outer part of the thigh, somewhat behind, beginning about two inches above the wound, and being about three inches in length. It is hard and œdematous, and there is no fluctuation to be felt. The wound, which is obstinate in healing, is dressed with red wash. Patient has a good deal of pain up the thigh, which seems very hot. Patient no better to-day. The swelling rather increased in size, and very tender on pressure. Temperature 100·8°.

11th.—Swelling rapidly going down; pain much less; wound beginning to granulate up from the bottom. Temperature 98·6°.

14th.—Swelling quite goue; no pain except on moving the leg. General health excellent.

21st.—Mr. Heath saw the patient to-day, and used passive movement of his leg; and as the wound is nearly healed, and is quite superficial, desired him to get up.

25th.—Patient gets up daily. The wound is practically healed, and the stiffness is going.

29th.—Patient goes out cured.


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# Medical Times and Gazette.

SATURDAY, OCTOBER 10, 1874.


## THE INTRODUCTORIES.

The Address at the London Hospital was given by Dr. Fenwick, who began with an *apologia* or justification of the introductory lecture. "Many of those just commencing their studies," he said, "are not only ignorant of all the sciences allied to medicine, but are unpractised even in the methods by which they can most successfully pursue them." For the first time, probably, in his education, "the student has to make himself acquainted with the facts from which conclusions have been derived; he has to judge how far many of the inferences he is taught are justified by facts; and he often has to decide for himself between the claims of opposing theories." Therefore it is well that on commencing his career he should be advised of the best method of pursuing his medical studies. Dr. Fenwick then proceeded to warn the student that he must be a student throughout his medical career—not merely, as some imagined, till he gained his licence to practise. "We can admit," he well and forcibly observed, "no distinction between the period before and after passing an examination, excepting that in the former you are answerable for the extent and thoroughness of your professional information to your teachers and legal examiners, whilst in the latter you are responsible to every patient who may seek your aid, as well as to the Creator who has conferred on you the opportunities of gaining that knowledge which may enable you to confer health and happiness on your fellow-creatures." The most important kind of education is self-education, and of this, "or rather of the best method of conducting it in respect to medical science," the lecturer chiefly spoke. He insisted on the importance of cultivating the habit of minute and careful observation,—by this facts would be gathered from which conclusions might be drawn; but then the student must remember that though his observations might be correct, his inferences might be wrong, and he must test them by experiment. "In this method of investigation," Dr. Fenwick observed, "you can vary the conditions under which any particular fact may be observed, and by frequently altering the conditions you can often eliminate from the problem all sources of error, and thus insure the accuracy of your conclusions." A third habit, the great importance of which was dwelt upon, is "that of recording observations *at the time they are made*." Dr. Fenwick admirably enforced all his teaching by telling illustrations drawn from the history of medicine, and he concluded a most useful and valuable address by assuring his hearers—"None of us, least of all none of you, now entering with enthusiasm on the work before you, will feel faint-hearted if you cast a backward glance at the history of your science, and perceive the great progress it has made. You can rest your feet upon some great truths, and from these look forward with confidence to further progress. But whether it be your lot to add to the number of these discoveries or not, the humblest amongst you cannot fail to fulfil a great and worthy purpose in life, if he will honestly, patiently, and perseveringly strive to fit himself for the discharge of his duties in it."

Mr. Mac Cormac, who gave the Introductory Address at St. Thomas's Hospital, began by gracefully, though shortly, acknowledging the generous spirit in which the authorities and the staff of the hospital and the pupils of the school had entertained his desire to come among them, and the cordiality with which he had been adopted, though four years ago he was an utter stranger to all of them; and then he turned to the direct subject of his lecture. Quoting Gibbon's saying that "Every person receives two educations—one from others; and one, the more important, he gives himself," the lecturer dwelt on the fact that the student must not depend exclusively for instruction on others, but must also, and most patiently, learn to instruct himself. He spoke of the high importance and value of a well-grounded preliminary culture, and of the necessity for constant hard work, not merely during the student-career, but throughout life; and pointed out that "that effort itself conferred a sure reward—a disciplined intelligence and a well-directed will." He alluded to the "long career of the ancient foundation of St. Thomas's," and to the position of surgery and surgeons in bygone days; and dwelt eloquently on "the debt of gratitude we owe to the worthies of the past," and on "the immense difficulties they had to encounter in the pursuit of knowledge, and especially in the age when the pursuit of anatomy was pronounced 'a sacrilege and a crime.'" "They" (the anatomists), says Hallam, "prowled through charnel-houses by night, dug the

dead from their graves, and climbed the gibbet in fear and silence to steal the mouldering carcase of the murderer."

In his advice to the students Mr. Mac Cormac strongly counselled them to acquire a competent knowledge of at least one modern language in addition to their own, quoting the saying of the Emperor Charles V., that "the man who knows two languages is thereby rendered twice a man"; and he spoke warmly of the "enormous contributions" made to science by Continental practitioners, and of the advantages of an acquaintance with the languages in which their labours are recorded. Naturally he dwelt on the horrors of modern warfare, and on the great efforts which had been made to mitigate them; enlarging on those efforts as might be expected from one who had witnessed the evils they are intended to assuage. And in conclusion he urged the student to "cultivate, at once as a solace and recreation, some pursuit not immediately bearing upon his profession"; pointing out that "of many within reach none is perhaps better deserving attention than the cultivation of general literature, which, as Sir John Herschel has said, places its possessor in contact with the best society of every period of history, makes him a denizen of all nations, and a contemporary of all ages."

At the Westminster Hospital the Address was delivered by Dr. Potter, who, of course and firstly, spoke of the very severe loss the school has sustained in the death of Dr. Frederic Bird, and, so recently, Dr. Austie, and then congratulated the students on having chosen so noble a calling as the medical profession, but warned them that they would find "the work hard, success difficult of attainment, State rewards but few, and the chances of making a fortune infinitesimal," though they might feel assured that "to be honoured professionally was open to them all, and that honest work rarely remained unrewarded in that way." He spoke especially of the honourable position of the general practitioner, and pointed out that by them had been done some of the best and most useful professional work. In connexion with remarks on the student's life, Dr. Potter regretted the entire abolition of the old fashion of apprenticeship, expressing his belief that a year or so would be well and profitably occupied in that way. In losing it, the student lost "the seeing of a great deal of practice, and especially the minor and petty cases which make up to a large extent the bulk of everyday work; also the minor diseases of children, scarcely ever seen in a general hospital"; he lost, too, "the handling of drugs, and a knowledge of the art of prescribing, never so successfully learnt in any other way; the traditions and etiquette of the profession; and last, but not least, an opportunity of ascertaining whether he really liked or disliked the profession he had chosen, as he saw, in addition to the purely medical point of view, the kind of daily life he must expect if he followed that profession." The lecturer enlarged of course on the importance of midwifery as "the keystone to practice," and laid great stress on the importance of a sound practical knowledge of the subject, and of attendance on as many cases of labour as possible. He described the advantages of a small medical school over a large one—there is no press and crowding of students, and therefore more opportunity for every student to gain posts of vantage for clinical work, and for having a responsible charge of patients; and he touched also on the duties and responsibilities of practice, of the spirit in which they should be met and fulfilled, and on various other topics generally dealt with in introductory addresses.

At the Middlesex Hospital Mr. Andrew Clark addressed his lecture principally to the first-year men, speaking of the work before them and the how to work. He pointed out the two great aims of the students—"to obtain a legal qualification, and to acquire such a knowledge of their profession as would give them a self-consciousness that they were able to combat any emergency," and he expressed the hope that when the Conjoint Scheme comes into operation it will be found that the possession of a diploma is a guarantee of thorough efficiency. He dwelt on the great importance of clinical work and the value of dresserships and all such hospital appointments; and while urging his hearers to work steadily and thoroughly, he spoke also of the need of recreation, and told them to take pleasure wisely and well.

Mr. Edmund Owen, who delivered the Introductory at St. Mary's Hospital, also occupied himself chiefly with describing the best methods of working and of gaining such knowledge as would fit the student to enter on medical practice; and he warned students against over-zeal at starting, lest they should soon "die away." They had a "four-mile race" to run, and good "staying" powers would be needed to reach the winning-post. He advised them to seek most earnestly to get *practical* knowledge, and in all subjects, avoiding *specialism* till they had acquired a sound general medical education; and when speaking of their after-career, he recommended strongly the Indian Medical Service, as "paternal and generous in its dealing," saying that "it acknowledged the fact that if good medical officers were to be obtained they must be treated as gentlemen and reasonably rewarded in the matter of pay and promotion."

At the Charing-cross Hospital the Address was delivered by Dr. Douglas Powell, who invited his hearers to consider how they would answer the question, "What is the use of the medical profession?" He pointed out that though "the laws of nature, 'bound fast in fate,' are not to be changed by human will," yet "in the intellect or mind of man we find a new force, having, within wide limits, the mastery over other forces, and, unlike them, capable of continued growth from generation to generation"; that "the true aim of civilisation is towards the attainment of a higher development of the intellectual and moral elements of our being"; and that therefore "the ascertainment and maintenance of the laws of life and health, mental and physical, under all the increasingly complex conditions of human existence, form a worthy and sufficient *raison d'être* for ours as a profession, being, in other words, the maintenance of the best bodily or material conditions for continued intellectual growth." In speaking of the education and training necessary to fit a man to practise this profession, the lecturer insisted upon the value of astuteness and decision of mind, the habit of thinking out everything to a conclusion, and spoke of the value of note-taking and personal examination into everything as the best means of cultivating this habit of mind. And he concluded an excellent address by commending the poor to the care of those about to pass on into practice. "Among the poor the chief work of the profession has to be done, our chief experience gained. And we have to try and raise them from their present state of sanitary discomfort and degradation, to aid and protect them by our watchfulness and advocacy in obtaining and maintaining for them due sanitary reforms."

The large demands made on our pages by the Metropolitan Introductory Lectures leave us but very little room for those delivered at the provincial schools, but we are glad to be able to find space for even rather a long abstract of the able and eloquent address on the duties and responsibilities of medical students delivered by Mr. Wheelhouse at the Leeds School of Medicine. It is an admirable example of that kind of Introductory in which the lecturer, besides telling the students how to work, seeks to excite their enthusiasm for their professional work by eloquent descriptions of the triumphs and achievements of the past, of the difficulties that remain to be overcome, and of the foes still to be conquered. Mr. Wheelhouse dwelt specially on the triumphs to be won in the field of preventive medicine; and it will be remarked that in connexion with this subject he depicted in a few telling sentences the dangers of our mode of dealing with our dead, and predicted that the

time will come when stern necessity will compel us to adopt cremation or some other better method than the present.

The Manchester Royal School of Medicine is now incorporated with the Owens College, forming the medical department of what Professor Huxley, who delivered the opening address, calls the foundation of a great university of Lancashire. The Professor spoke very warmly in praise of the completeness of the arrangements for teaching throughout the College, and said that he had not met, in the whole course of his experience, with a more efficiently organised institution than the medical school. "Everything," he said, "has been carefully considered; everything has been done which the idea of convenience could suggest, or which the notion of efficiency requires to have carried out." And he went on to remark that "it might astonish the lay portion of his audience and puzzle them somewhat to know why such an elaborate apparatus should be needed for the teaching of medicine, and why men should require so very long a period of arduous study as they do in that most important of pursuits." "This surprise arises," he explained, "from the prevalent idea that the living body is dependent upon forces and powers which are altogether different from those which we find working in other kinds of matter"; whereas "the modern scientific study of medicine depends on the assumption that the living body is a mechanism —infinitely more refined, infinitely more difficult to understand, than our coarse human machinery,—but still a mechanism, which, like all other mechanisms, is governed by rules or laws which can be discovered, and which can be applied and reasoned over in order to understand its processes. Modern medicine is in fact a kind of engineering. It is an attempt to study the machinery of the body for the purpose of being able to put it right when it goes wrong. . . . Sickness is the going wrong of the machinery; death is the destruction of part of the machinery; and the only way in which that machinery can be set right, if it goes wrong, is not by sitting down and hoping for it,—is not by sending for the first blacksmith, who will administer his purge here and his bleeding there, but who is what we call a quack. I mean a person who is really ignorant of what he is dealing with, and yet presumes to meddle with it,—that is the essence of quackery. Or, thirdly, we may send for our skilled engineer, who, by the help of what he calls symptoms, makes out what wheel is out of place, what flange broken, and by his previous knowledge of therapeutics—that is, of the effects of remedies—knows, if it be possible, in what way to get this erring wheel or this broken pinion into its place again. And it is in order that we may have such skilled engineers of the body that all this great apparatus which you see erected here is wanted, and all this long period of study is carried out." Then he touched on the marvellous advance the science of medicine had made in the last thirty or forty years, and urged upon the students the duty of taking every advantage of the facilities placed within their reach.

It will be generally acknowledged that the Introductory Addresses of this year are, as a rule, decidedly above the average, and some of them are remarkable for embracing a much larger and deeper view of the things appertaining to medicine than is usually attempted on these occasions. More notice is being taken year by year of these addresses by the public press, and this may, we hope, stimulate and encourage those who have to deliver them to seize the opportunity to speak to the public as well as to the students. They may with advantage remember the remark made by the *Times* with reference to this year's addresses:—

"The lecturers who would instruct the educated portions of the public with regard to the actual position of medicine and surgery among the sciences, with regard to their weaknesses and shortcomings as well as with regard to their achievements and their strength, would render a highly important service. They would assist not only the sick and their friends in private life, but also the official guardians of health, to understand, better certainly than they understand at present, what are the reasonable possibilities of the healing art, within what limits the doctor speaks from knowledge, at what point he approaches the limits of conjecture, how far he may be relied upon, and what manner of results may be legitimately expected from his skill."

## THE NATURE AND ORIGIN OF TYPHOID FEVER, CONSIDERED MORE ESPECIALLY WITH REGARD TO ITS PREVENTION AND TREATMENT.(a)

### V.

Looking upon typhoid fever, as we do, as a specific form of disease, generated by a specific poison, we must consider its treatment, or, rather, perhaps we ought to say management, from a twofold point of view. We must do our best for the individual, and it is also our duty to prevent as far as possible any spread of mischief among the community at large. Our duty as regards the rigid practice of disinfection has already been indicated. Only one question in this direction remains for discussion—Can we carry on this practice of disinfection, or anything similar to it, in the individual, so as to prevent any risk of contamination by his excreta? But again we may ask, Is it possible in this way to shorten the disease, or at all events to limit it more strictly to a definite period than we always see it occupy? These are all important questions, but unfortunately we are hardly as yet in a position to answer them. We have in the meantime no specific remedy which we can rely on for cutting short enteric fever, and no substance we can be quite sure of for destroying typhoid germs within the system. As far as specific treatment is concerned, only two substances have of late been characterised even approximately as such—these are calomel and iodine. On the Continent, especially in Germany, where enteric fever is even more common than with us, the use of calomel is supported by authorities like Traube, Wunderlich, and Niemeyer, who hold that it not only does good generally, but even helps to cut short the fever. The dose given is from six to ten or fifteen grains three or four times in the course of the first twenty-four hours after the patient comes under treatment, if this be fairly near the commencement of the disease. Iodine in iodide of potassium (our Liquor Iodi) has also been used, and has been asserted to be of great service. Certainly statistics on the larger scale seem to show that cases so treated do on the average much better than those left to take their own course; but here, as in many other respects, statistics are but poor guides, and there is notoriously one element they do not include, which in enteric fever is nearly all in all—that is, nursing and subsidiary management. Suffice it to say that the weight of authority is in favour of giving one or two doses of calomel if we see the patient in the early stage of the malady.

When we turn to the consideration of the practicability of destroying the poison within the system, one or two noteworthy facts suggest themselves. First, as already pointed out, the poison is almost certainly mainly propagated in the alimentary canal, and is therefore much more than ordinary animal poisons within the reach of medicaments. Experience has shown that certain substances, like green sulphate of copper, creasote and carbolic acid, Condy's fluid, etc., have the power of destroying the germs of the disorder outside the

(a) "Lectures on Fever," delivered in the Theatre of the Meath Hospital and County Dublin Infirmary, by William Stokes, M.D., D.C.L. Oxon., F.R.S., Regius Professor of Physic in the University of Dublin, Physician to the Queen in Ireland; edited by J. W. Moore, M.D., F.K.Q.C.P., Assistant-Physician to the Cork-street Fever Hospital, etc. London: Longmans. Pp. 439.

"A Treatise on the Continued Fevers of Great Britain," by Charles Murchison, M.D., LL.D., F.R.S., F.R.C.P., Physician and Lecturer on the Principles and Practice of Medicine, St. Thomas's Hospital, etc. Second edition. London: Longmans. Pp. 729.

"Typhoid Fever: its Nature, Mode of Spreading, and Prevention," by William Budd, M.D., F.R.S. London: Longmans. Pp. 193.

body. Why should they not be used inwardly? To this the reply is, that there is no particular reason why they should not in moderate quantity; but experience is wanting as to their efficacy in arresting the production of fever germs, or in destroying those already formed. Another suggestion, however, occurs: it is well known that the pea-soupy stools of confirmed typhoid are invariably alkaline, and it is a question how far the germs which these contain can exist in presence of a strong acid. Moreover, experience declares itself on the side of giving acids in the disease, since they tend to remove the clammy condition of tongue which adds so greatly to the sensation of thirst, and to prevent severe diarrhœa. For these latter reasons alone we should be justified *nihil contradicente* to order dilute or aromatic sulphuric acid, or dilute hydrochloric or nitro-hydrochloric acid in ordinary doses from time to time, having a hope that the same remedies might tend to limit the spread of the disease by limiting the growth and number of the typhoid germs.

Practically, however, we are brought to this pass. We know of no assured means of cutting the malady short; we must, therefore, let it take its course, being careful to look out for those complications which are prone to be fatal if not sharply dealt with, but which are in reality fairly amenable to treatment. Foremost among these is excessive bodily heat—not hyperpyrexia, in the sense the word has come to assume (a temperature of 106° Fahr. or more), but what would be deemed by some to be ordinary pyrexia. All are agreed that hyperpyrexia is a thing to be dealt with sharply, but all are not agreed as to the particular point at which bodily heat should begin to be considered as an enemy to be dealt with separately and apart from the enteric disease. Abroad, where the cold water treatment of enteric fever has obtained a more general recognition than with us, it is common to begin with a temperature a little over 102° Fahr. For our own part, we hardly feel inclined to begin any specific treatment at such a line, but we claim no infallibility in the matter, and, in point of fact, may be wrong in so doing. Nevertheless it seems to us that temperatures under 104° Fahr. may as a rule be dealt with by increasing the quantity of alcohol given to the patient, by tepid sponging of the surface, and especially by the giving of quinine. As to the administration of alcohol, we hardly think it possible to lay down rules to be generally available. Sponging is simpler, and is available at anything over 100° Fahr. But to give quinine effectually it must be given in full dose; as a rule we begin with twenty grains, and continue for some time thereafter to give five grains every four hours. This, no doubt, gives some headache and buzzing in the ears, but that is only showing that the remedy is having the physiological effect which is essential to the due development of its power of depressing temperature. With these three remedies in our hands, not every case of typhoid requires cold baths; but if the temperature keeps rising, and remains persistently over 104° Fahr., then the bath should be brought to the bedside, carefully raised to the temperature of 70° Fahr., and the patient placed in it for ten minutes. This will cool the surface, but will have, in the first instance, little effect on the internal temperature, for causes on which we cannot now enter. After the patient has been replaced in bed, however, the internal heat also falls, but too often only for a time, insomuch that in bad cases the baths may require to be repeated every two hours, and as many as 200 to be given in the course of the disease. Thus used there can be no question of the exceedingly great usefulness of cold water baths; the only diversity of opinion seems to be as to the proper time, as indicated by the patient's temperature, when to begin them. But even beyond this there are exceptions to ordinary rules. The effect of the cold water is to arrest or diminish cutaneous circulation, and consequently to produce some degree of internal congestion. If, therefore, there be threatening of intestinal perforation, when the necessary moving of the body might be dangerous, or of intestinal bleeding, when the congestion might give rise to troublesome hæmorrhage, the cold water cannot well be employed in this fashion; but it is not to be forgotten that the pulmonary congestion, so apt to be a dangerous concomitant of typhoid, is relieved rather than otherwise by the use of the bath.

We can hardly leave these complications, especially intestinal hæmorrhage and perforation, without a word of warning. They are especially apt to occur when patients are making some extra exertion, such as the rising to stool or the like. These efforts, therefore, towards the period of the disease when they are most likely to occur—*i.e.*, about the third week—should be strictly forbidden. But this caution is also necessary in another way. Cases of typhoid do occur where the general symptoms are so slight that the patient will hardly consent to keep his bed. He may keep on his feet to the last, and suddenly perish of hæmorrhage or perforation. Such risks would be avoided by regular observation of the bodily heat; but we mention them chiefly to enforce the rule, that as soon as a patient is known to have typhoid, he is to be sent to bed, and kept there till the temperature has been for some time normal both morning and evening.

Many other things might and perhaps ought to be said on the subject of treatment, but our space forbids. There is, however, one grand rule never to be lost sight of in dealing with this as with other diseases. Look after the little things. Good nursing is all-important in typhoid; and to insure good nursing the practitioner should always be a better nurse than the nurse herself—a kind of qualification which the rising generation of practitioners is too apt to sneer at. And then the diet; that, again, is a matter requiring profound consideration. If there is a question of a vessel or an ulcer giving way, a slight thing may do it; an over-distended bowel, whether from food or gas, may have a fatal issue. But of all things, careful dieting during early convalescence is most essential. Often a relapse is precipitated by the injudicious use of certain articles of food; and we have often seen the relapse from this cause much more severe than the primary attack.

## THE WEEK.

### TOPICS OF THE DAY.

On Thursday, the 1st instant, after the introductory lecture, the lecturers and friends and old pupils of Charing-cross Hospital dined together at the Freemasons' Tavern. About fifty gentlemen sat down. Mr. Hancock was in the chair. After the usual loyal toasts had been drunk, the chairman gave the toast of the evening—"Prosperity to the Charing-cross Hospital and College." He gave a graphic sketch of the rise and progress of the institution from a little insignificant dispensary in the neighbourhood. It was chiefly to the energies of one man they were indebted to the noble institution which constituted the present Hospital and College. The school was founded by himself and Dr. Hird, who came over from the Westminster Hospital for that purpose. He elicited a shout of laughter by the statement that the first introductory lecture he gave was to a solitary pupil. They might depend upon it that they made the most of him. What a striking contrast to the goodly and numerous assembly of to-day, both of old and new students! The school now, and hospital, are well and efficiently officered, and the student might obtain as good and complete an education as in any other similar institution. They were proud of some of the pupils that had been educated there—Livingstone, Huxley, Dr. Hunter, of Bombay, and Dr. Fayrer, whose splendid work on Indian serpents was the admiration of all. Mr. Hancock concluded a most able speech amid loud and prolonged cheering. Several other toasts

followed, and the meeting broke up well pleased with the entertainment. It is due to the proprietors of the Freemasons' Tavern to state that the dinner was a most excellent one, and included what you do not always get at taverns—good waiting and good wines.

Dr. Tripe, in bringing his fortnightly report before the Hackney Sanitary Committee last week, took occasion to remind the Board that the deaths from scarlet fever were more numerous than had been registered in any fortnight since 1871, so that he feared they would have a very severe epidemic until November, 1875, and probably longer, as he foretold in his last annual report. He meant that the highest mortality was not likely to be reached till October or November, 1875, and that the epidemic would not cease until March, 1876, and might continue beyond that time, as an epidemic rarely disappeared in less than eighteen or nineteen months, and frequently continued from twenty-eight to thirty months. He mentioned this now, because he wished it to be understood as his belief that sanitary measures would not prevent scarlet fever from being epidemic at certain intervals of time, although they materially modified its intensity and fatality. He did not consider scarlet fever to be a preventable disease, except by strict isolation of all persons affected by it until all desquamation of the skin had ceased by disinfection of the clothes, etc. As these precautions were scarcely ever carried out in any one case, and certainly not in a majority of cases, it was with our present knowledge almost certain to recur as it had hitherto done. Considerable discussion took place upon this statement. The members of the Committee were evidently of opinion that Dr. Tripe was somewhat of a alarmist; that he had in former years prophesied that they would be visited by some epidemic; that a year or two ago he had predicted we should be visited by the cholera. After standing a cross-fire for some time, Dr. Tripe said—

"Certain diseases passed along a curve, the highest point of which represented the highest rate of mortality and the lowest the lowest. This would pass a succession of years at a certain rate, determined partly by the intensity of the previous epidemic, and partly by the susceptibility of persons to the disease. A certain number of children were born every year, and they of course would come within the curve. The culminating point would be in October of next year. This was not the first time he had predicted this. As to cholera, he certainly did not say at the time it would come; he was too cautious to say anything so definite. As to the definition of 'nuisance,' overcrowding was one; accumulating anything no longer useful for trade purposes was another."

The following discussion then took place:—

"Mr. Bowser asked if Dr. Tripe's calculation had especial reference to Hackney.

"Dr. Tripe replied, it affected Hackney, the metropolis, and all England. As to England, of course, the epidemic would describe a larger curve.

"Mr. Bowser said it appeared the intensity of the curve was to cross Hackney. If so, removal to Islington would take the residents out of its sphere.

"Mr. Cox regretted that Dr. Tripe had advanced these speculative theories. Their duty was, as a sanitary body, to deal with sanitary matters, and they should apply to these the principles of common sense. The curve must be a very erratic line, for it would appear that the metropolitan districts were to be affected in different ways. What they had simply to do was, to go on as they had done, improving upon their work if possible. He objected as much to be doctor-ridden as he objected to be lawyer-ridden or priest-ridden!"

The motion to refer the report to the Sanitary Committee, to carry out such works as it might necessitate, was adopted. Notwithstanding the opposition to his views which Dr. Tripe met with, there can be no doubt they are founded on experience, and are worthy the attention, not only of the Sanitary Board of Hackney, but of all sanitary boards of the kingdom.

It is stated in our contemporary the *Echo*, in reference to the recent outbreak of small-pox at Newmarket, and the subsequent Government inquiry, that the Local Government Board have called upon Dr. Mead, the Medical Officer to the Union, to tender his resignation, and that the request has been complied with.

Three "station hospitals" are to be formed at Aldershot instead of the regimental hospital establishment. One will be at the North Camp, another at the South Camp, and the other at the permanent barracks.

Advices from Constantinople state that fever is raging at Damascus: 14,000 persons, including half the garrison, have been attacked.

At the moment of going to press we have received intelligence of the death of Mr. Joseph Swan, of whom a biographical notice will appear next week.

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### THE INJURIES TO THOSE KILLED BY THE EXPLOSION.

SUBJOINED is a description of the injuries received by the three bargemen who were killed on the 2nd instant by the explosion on the Regent's-park Canal. Our examination was made under some disadvantage and with interruptions, as the bodies were all lying in their coffins, and were frequently being visited by friends and other persons, for the purpose of identifying the victims. It was, therefore, impossible for us to make any inspection of the back of the bodies, and our examination was confined to the appearances presented under the circumstances mentioned. It will be noticed that the right side of the head and face was the chief seat of injury in all the three bodies. The hair was mostly removed from the right side of the head of each; in two the arm near the shoulder was injured; in the one case the bone was broken, in the other the soft parts wounded. In all three bodies there had been very marked bleeding from the left ear. It is somewhat astonishing that more damage and disfiguration was not wrought on the limbs and bodies of these men, which, with the slight exceptions stated in the report, were quite uninjured.

Charles Baxter, captain of the *Tilbury*.—Hair of light brown colour, closely singed, and on the right temple and forehead completely removed, leaving only very short crisp stumps upon an otherwise bald surface. The upper part of the face (including brows, eyelids, and nose) is much disfigured, of a dingy red colour, and tumid. On the right temple is a small and superficial abrasion, the base of which is reddish-black and moist. Along the orbital ridge of the right side, and of exactly its course and extent, is a very contused and jagged incision through the skin and muscle, but not so deep as to expose the bone, nor is any crack or fissure felt in the orbital margin. Running vertically, at the inner extremity of this wound is a superficial linear incision, not quite straight, and extending downwards half the length of the nose. The eyelashes are closely singed, and of the hair of the left eyebrow there is no trace. The eyes, which are of a bluish-grey colour (the left having a tinge of brown at its lower and outer side), are apparently uninjured, though beneath the conjunctiva of the left there is blood extravasated at the inner side and above, with œdema at the outer side; there is some, but less, subconjunctival ecchymosis and more œdema on the right side. The nose is much deformed; both nasal bones are smashed in pieces, and the whole organ is inclined to the left side. The cuticle over the nose (as elsewhere at the upper right side of the face) is destroyed, and lies curled up at the margins of the alæ of the nose. On the surface of the nose there project numerous little white papillæ-like processes, which cannot be wiped away. The upper lip is swollen and discoloured, and a vertical incision reaches from the free margin upwards to the right nasal aperture; this does not extend through the whole thickness of the lip. There are two slight irregular and

superficial incisions in the lower lip on the right side, with considerable laceration and contusion of the mucous surface, and a deep irregular wound on the free margin near the middle line. Both ears are much discoloured (of a shining red colour), while the cuticle is absent; and from the left ear blood has been, and still is, trickling. The neck shows slight evidence of scorching on both sides, and over the right angle of the lower jaw is a moist and black contusion. The upper jaw is fractured on each side, so that it moves with the deformed and fractured nose; the lower jaw is also fractured; the fissure (which extends through the mucous membrane) lies in nearly a vertical line between the two right incisor teeth. Both hands have been much burnt over the backs, but only superficially; the cuticle remains attached along the fingers like so many loose finger-stalls. The palms are uninjured, but stained of a black colour. Over the forearms and arms, as high as the junction of the upper with the middle third, the cuticle is removed, and there is mottled light brown discoloration. The right humerus is fractured just above the insertion of the deltoid. Here and there over the shins and dorsal surface of the feet there are red patches, from which the cuticle is removed. Otherwise the lower limbs and the trunk are uninjured.

William Taylor.—Hair, eyelashes, eyebrows, and beard of dark colour, are much singed; face good-looking, with well-formed features, and apparently that of a man of thirty years of age. The whole right side of the face discoloured, although deeply tanned; the same appearance of the left side of the forehead and over the malar bone. From the fore part of the right side of the head the hair is quite absent. Running obliquely downwards and outwards, from the median line of the frontal bone, close to the scalp, to the fore part of the right temporal fossa, is a large chasm, one inch and a half broad (and in some places rather broader), one inch deep, at the bottom of which is seen the bruised anterior lobe of the cerebrum, some parts of which are bulging outwards between the margins of the wound at its outer angle, and imbedded in which lies a large fragment of the frontal bone; one corner of this is projecting forwards, and occupies the middle of the chasm. The margins of the skin are of a dull black colour, and overhang the edges of the bone. The dura mater is torn back some distance from the upper edge of the fracture, and lies apparently imbedded in the bruised cerebral substance. There has been free bleeding from the left ear, which is not superficially injured. The cuticle of the right ear is much destroyed. The form of both ears is perfect. The skin along the right side of the neck, near the jaw, is dry and brown, and the cuticle absent. The body and extremities have the appearance of those of a young man who has died in his bed, and present no evidence of injury whatever. Neither eye injured; they are of light hazel colour; the pupil of the right is dilated. There is slight subconjunctival ecchymosis, in patches, of the right eye; none of the left. There is a contused superficial wound of the left upper eyelid. Bones and shape of the nose intact; over the right side, from which the cuticle is removed, there are numerous white papillæ-like projections.

Third body (unknown).—Looks about twenty-two or twenty-three years of age. Hair, eyebrows, and eyelashes all much singed. Features not much changed, except that the lips are very tightly set. Both sides of the face and both ears are considerably discoloured (of a moist shining red appearance), from which the cuticle is chiefly removed, though here and there are small areas where it is still attached, some of which are begrimed with a black substance. Over the left malar bone are two small skin wounds. A large portion of the right side of the scalp is deprived entirely of hair. There is a jagged punctured wound over the outer angle of the right orbital ridge. About the neck and chest there are several brownish patches where the cuticle has been destroyed. Some of these look like simple scorches or bruises; others are discoloured and of a dirty black colour. There is a small punctured wound, one inch long, over the front of the arm near the shoulder. There has been bleeding to a considerable extent from the left ear—it is still going on; blood is also lodged in the concha of the right ear. With the exceptions named, there are no injuries to the trunk or extremities.

## PROFESSOR HUXLEY'S ADDRESS AT THE OPENING OF THE OWENS COLLEGE MEDICAL SCHOOL.

The Manchester Royal School of Medicine, now incorporated with Owens College, was opened on the 2nd inst. by Professor Huxley, who commenced his address by declaring the Medical School, which had for some years been in course of erection, formally opened and ready for the work which would, he hoped, for a very long series of years be successfully continued in it. He had not met with any more efficiently organised institution than that within the four walls of that Medical School. When he was an examiner at the University of London, the Manchester Medical School of the day used to send up exceedingly well-prepared men; and if that could be done with the means and appliances which then existed, he should, though no longer an examiner, expect to see the lists of the University of London crowded with successful candidates from Manchester in future times. After some excellent observations on the human body—the living body in general, and its mechanism,—the Professor thus concluded his eloquent address:—

"I happened to take up to-day the syllabus of your sessional work, and I turned not unnaturally to the class of practical physiology and histology, which will be conducted by my friend Professor Gamgee. In looking over the various headings of this most admirably constructed course of instruction I need not go so far back as fifty years ago, but thirty years ago, when I began my medical studies, to say that there was no one at that time, certainly in London, and I could go further and say there was nobody in the world, who could have given you this course of instruction. That sort of teaching was not even anticipated; we had not the instruments which are requisite to carry it out. The whole course of medical study since that time has been completely changed, in the first place through the discoveries made by the use of the microscope, and in the second place by the wonderful application of delicate physical instruments in the elucidation of the mechanism of the body, which is of the very essence of our modern physiology. At that time, then, organic chemistry was hardly in existence. I remember very well that when I was a student we used what was called 'Turner's Chemistry'; and if that book was compared with modern text-books, it would be found that the proportion of space given to organic and the proportion of space given to inorganic matters has been vastly changed. It is the recognition of the fact that the study of life is essentially a question of applied physics and chemistry that has changed the whole course of our medical studies. It is that which makes this elaborate apparatus necessary. It is that which makes it needful before all things that you who commence your medical studies should come provided, at any rate, with the elements of physics and chemistry as your foundation. One of the great reasons of the backwardness of medical study at the present time is the fact that those who come to study it are, by the lamentable defects of their previous education—no fault of theirs, but the defect of the common school education of the country—that they come up to their medical course utterly unprovided with even a conception of what chemical and physical education is. Thus, all the time that is given to the study of those subjects at present in our comparatively short medical curriculum, and which ought to be devoted to other studies, of anatomy, physiology, and the like, is not only lost, but three times as much more could be done in those departments if it were not because the elements of scientific education are absolutely neglected in our common schools. I do not think it will be needful for me to detain you longer. The subject is a tempting one, and I might be disposed to enlarge still more upon the advantages which you who are now commencing your career have over those who are thirty or forty years older than yourselves; and I would go on enlarging upon these advantages at still greater length, if it

were possible that I could thereby stamp upon your minds as firmly and strongly as it is borne into my own, that all those appliances and all those mechanical aids for the study of medicine are simply thrown away unless they have the foundation of human hard work and clear-headedness to go upon. You have before you probably that which is the most responsible of all human careers. It is hard for you now to realise that; it is very difficult indeed for you, curbing the hot blood of youth, to understand what great issues may depend upon your present career. But depend upon it that exactly in proportion as you make use of those advantages—as you feel the burden of your responsibility—as you acquire that knowledge which is essential for you—so will your lives in future be passed either in the satisfaction of well-merited renown, or in the misery of a violated conscience."

### NAVAL SURGEONS.

The *Navy*, in noticing the opening of the medical session in London last week, in connexion with the grievances of naval surgeons, quotes from the speech of Captain Bedford Pim, who returned thanks for the Navy at the dinner of the Middlesex Hospital, where he was at one time a student. Captain Pim said that it was of no use to blink the question; he knew they expected him, as a naval man and sometime medical student, to say what he thought of the present chances of the naval surgeons getting something out of the Admiralty. He continued:—

"I don't think they are likely to get much out of the Admiralty; for unless that august body is either tickled or flogged it will do nothing. Mr. Ward Hunt, at the interview with the deputation from the British Medical Association in June last, handed over the consideration of this important question to Lord Gilford; for, no doubt, the First Lord felt that he knew little enough of the navy as a whole, and even less of the medical branch. But Lord Gilford himself, although a captain in the navy, and one of the best and bravest sailors I ever met with—indeed, we were badly wounded about the same time in China, and lay in hospital together at Hong-Kong,—can hardly be expected to know much of the requirements of medical men. Gentlemen, to fall back for a *simile* upon the anatomical knowledge picked up at Middlesex Hospital under my kind friends on my right and left (Mr. De Morgan and Mr. Nunn), I venture to doubt if Lord Gilford knows the *os frontis* from the *os coccygis*; and surely this is not the way to deal with a question of such vital importance! Gentlemen, I fear the Admiralty will not be 'tickled'—charm you never so wisely—into putting the medical branch of the navy on a proper footing; they don't know how to do it—that's a fact. My advice, then, is, flog them into a right frame of mind by shutting the doors of your hospitals and medical colleges in their faces. The medical profession is the noblest in the world, I except none. Your mission is to save human life and ameliorate suffering; and when, I would ask, has a real medical man been known to flinch in his duty, no matter how appalling the surroundings? In spite of this, and of the fact that the profession of medicine is that of gentlemen in every sense of the word, yet the surgeon does not hold his proper position in the navy; and, therefore, when you are asked to join the service, I give you the same advice *Punch* gave to those about to marry—*Don't!*"

### HOSPITAL SATURDAY FUND.

A meeting took place at the Guildhall on Saturday last, over which the Lord Mayor presided, having for its object the promotion of a collection on the 17th inst., in aid of the London hospitals and dispensaries. The meeting was not numerously attended, and in consequence the resolutions brought forward were adopted without any confusion or dissent. We last week expressed our opinion upon the so-called working-men's collection for the purpose in question, and the further details which have reached us have in no way caused us to alter the views we then put forward. During the past week parties of boys have patrolled the streets, soliciting alms for this Hospital Saturday collection from all passers-by; and in addition an appeal has been made to the theatrical profession to subscribe to the same fund, either by giving simultaneous performances at the different theatres in its behalf, or by allowing the Committee of Management to make arrangements for sending round their collection-boxes in the different places of entertainment, between the acts, on the evening of Saturday, the 17th inst. What the object of the promoters of this collection can be, in resorting to all these expedients for swelling the amount which is to be subscribed by the *working classes* of London, we are at a loss to understand. We had imagined that the movement was originated solely for the purpose of affording working-men an opportunity of contributing small sums to a Hospital Saturday Fund, but here we have quite another section of the public placed under solicitation for the purpose of making up an imposing total which will appear to have come out of the pockets of the labouring poor. There can be but one opinion as to the desirability of augmenting the funds at the disposal of the London hospitals so long as these are wisely administered, but we strongly protest against the measures which have been taken in this instance to obtain a result which, whatever the sum realised, will *not* represent the contributions of British workmen only, and which, we have much reason to fear, is being collected for a totally different purpose from what seems to be the object of the gathering.

### THE AIR OF CANAL-BOATS.

At the meeting of the Public Health Committee of the Corporation of Dublin, held on Friday, the 2nd inst., Dr. Cameron, the City Analyst, presented a report on the sanitary condition of the sleeping-cabins of the canal-boats plying on the Dublin canals, which he pronounced to be worse than that of any sleeping-place which he had ever examined. From two to four men sleep in each bed, and each individual has but from forty to 100 cubic feet of space; the minimum quantity being 300 feet per head in registered lodging-houses. The cabins are never ventilated except from the hatch, which in wet weather and in winter is closed. The cabins are sometimes in the bows instead of in the stern, and are often only from seven to ten feet long, from six to nine feet wide, and from three to five feet high. Each has a close iron stove, which is of little use as a ventilator, but poisons the air with turf smoke and carbonic acid. Dr. Cameron determined the amount of carbonic acid in several of the cabins shortly after their occupants had risen, and found it to vary from 0·12 to 0·97 per cent.; the amount in pure air being 0·04 per cent., and in very badly ventilated rooms only 0·08 per cent. In the air of the cabin of No. 115 boat, Royal Canal, the carbonic acid at eight o'clock a.m. amounted to 0·97 per cent. The cabin afforded only eighty cubic feet of space to each of its four occupants, there being also two dogs in it. Many of the men employed in these boats appeared to be unhealthy. The Committee made an order that notices should be served on the boat-owners to provide proper space and ventilation for the occupants of these cabins.

### THE SOUTH DUBLIN UNION BOARD OF GUARDIANS.

On Thursday, the 1st inst., this body met for the first time as Rural Sanitary Authority under the new Public Health Act for Ireland. The appointment of sanitary officers was made under circumstances and on conditions which will not tend to allay the mistrust very generally felt as to the competency of Poor-law guardians to deal with sanitary administration. Four sanitary sub-officers were appointed for the district at salaries ranging from £45 to £35 per annum. The dispensary medical officers, as *ex officio* sanitary officers, were awarded £30 a year in the more rural, and £10 a year in the more urban sub-districts of the union. On what principle these sums were allotted it is hard to say, unless it is that the more work a man has the less he should get for doing it. But the strangest part of the day's proceedings was the appointment of a consulting

sanitary officer, for which important and responsible post two candidates appeared—Drs. Charles F. Moore and J. C. Burne. Certain guardians elected for the urban districts of the union insisted on being present at the meeting, although the Act distinctly states that the sanitary authorities of a Poor-law union composed partly of rural and partly of urban sanitary districts are the *rural* elected and *ex officio* guardians. One of these spoke to the effect that "they should give the consulting sanitary officer a good salary, as the duties would be onerous, and they should have a first-class man." Dr. Burne was elected by a majority of three to one, at a salary of £50 a year.

### THE OWENS COLLEGE MEDICAL SCHOOL.

No expense seems to have been spared in providing perfect buildings and appliances for the Owens College Medical School. The buildings consist of two large lecture theatres—one adapted for anatomical and physiological lectures, and the other for lectures on medicine and surgery. The benches in the anatomical theatre are made in the well-known horseshoe shape, so that the students can always have a good sight of the preparations on the lecturer's table below. The anatomical theatre has sitting accommodation for 240 students, and the medical theatre for about 150. Both theatres are well lighted, and a large sun-burner throws its rays upon the lecturer's table. Strict attention has been paid to the ventilation of the theatres. Above the lecture theatres, which form the front of the building, is the dissecting-room, which is said to be the most perfect, so far as space, ventilation, and general fittings are concerned, in the United Kingdom. It is seventy-seven feet long by thirty-two feet wide, and the manner in which it is fitted up and furnished is far superior to any room of the kind that we have seen. There is a hoist, running the whole height of the building, for the purpose of raising the subjects, preparations, and specimens from the ground floor to the dissecting-room. The floor of the room has been constructed by the Val de Travers Company, an important advantage of this flooring being that it can be very easily cleansed. The anatomical department is also very complete in its other arrangements. The next department which attracts attention is that in which Professor Gamgee, Brackenbury Professor of Practical Physiology, will preside. The fittings in this department are not equalled in completeness by any other in this country, and it reminds those who have visited them of the splendid Government establishments of the same character for which Germany is so renowned. The students' physiological library is a fine room, forty-one feet long by thirty-two feet wide. It is well lighted from all the four sides, and fitted in the most complete manner with benches and tables for the use of the students working both in experimental physiology and microscopic histology. This department is complete in every respect. An important circumstance in connexion with this department—now that the medical board of examiners are every day requiring more practical knowledge on the part of the students—is the fact that those in charge of the Owens College Medical School have to devote their whole time and energies to their respective subjects, and cannot practise as medical men.

### HOSPITAL SUNDAY IN DUBLIN.

Within five weeks of the date (November 15) fixed for the first Hospital Sunday in Dublin, a certain amount of opposition has been got up against the movement by the representatives of three or four institutions, which, with one exception, originally promoted it. The alleged objections are—that there has been a falling off in the subscriptions to these institutions since the Hospital Sunday was mooted, and that if it is held it cannot possibly be a success. We believe that statistics relating to two of these institutions show that their subscription-lists have experienced great fluctuations during the past twenty or thirty years; and it is far more likely that a reaction, after the strain inflicted on the generosity of the public by the late small-pox epidemic, is to blame for a diminished subscription-list, than that the Hospital Sunday movement has sealed up the purse-strings which it was intended it should open more widely. The second objection answers itself. Let the experiment be tried, at all events.

### THE TEACHING OF PHYSIOLOGY IN EDINBURGH.

We hear from Edinburgh that Dr. McKendrick has determined to commence teaching physiology in the Extra-mural School, and that to this end he has purchased the teaching material belonging to Professor Bennett. We congratulate Dr. McKendrick on his resolve, and we are quite sure that, in the interest of science, such competition is often a desirable thing. When teachers are put on their metal, only benefit can result to the taught.

### THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

At a meeting of this corporation held on the 5th inst., the following office-bearers were elected for the ensuing year, viz.:—*President:* Andrew Fergus, M.D. *Visitor:* James Morton, M.D. *Treasurer:* John Coats, M.D. *Honorary Librarian:* J. D. Maclaren, M.D. *Vaccinator:* Hugh Thomson, M.D. *Council:* The President, *ex officio;* the Visitor, *ex officio;* the Treasurer, *ex officio;* J. G. Fleming, M.D.; George Miller, M.D.; George Buchanan, M.D.; William Leishman, M.D.; and Henry Muirhead, M.D. *Board of Examiners:* Surgery and Surgical Anatomy, James Morton, M.D.; Chemistry, Robert Perry, M.D.; Midwifery and Medical Jurisprudence, P. A. Simpson, M.D.; Medicine and Materia Medica, T. McCall Anderson, M.D.; Chemistry, Alexander Lindsay, M.D.; Anatomy and Physiology, George Buchanan, M.D.; Medicine and Materia Medica, R. Scott Orr, M.D.; Midwifery and Medical Jurisprudence, J. G. Wilson, M.D.; Surgery and Surgical Anatomy, Donald Dewar, M.D.; Anatomy and Physiology, Eben. Watson, M.D. *Examiners in Arts:* James B. Russell, M.D.; John Pirrie, M.D. *Clerk:* William Henry Hill. *Librarian and Secretary:* Alexander Duncan, B.A.

### MEDICAL PRACTITIONERS IN RUSSIA.

It is stated on authority that in Russia there is but one physician to every 17,800 souls. There are Governments, such as that of Perm, circles like that of Cherdink, where the proportion is still smaller and there is scarcely one physician to 60,000 souls. There is, moreover, one hospital to every 175,000 inhabitants, one for women in labour to every 6,000,000, one for foundlings to every 1,350,000, one lunatic asylum to every 390,000, one deaf and dumb institution to every 11,000,000. From a Russian journal we learn that the army is better provided for, there being one hospital to every 5000 men. In Prussia the proportion is one to 1250. In Italy there is one physician to every 2280 inhabitants; in England there is one medical practitioner (surgeons included) to every 3180.

The Rationale of Transfusion.—Prof. Dalton, during a recent discussion on transfusion, observed that he did not consider it strange that when patients had lost large quantities of blood, two or three ounces added would be sufficient to save life. There is in the human system from fourteen to eighteen pounds of blood. When one-fourth of the amount has been lost, it has seemed to some almost impossible that life should be saved by the injection of so small a quantity. It did not strike him in that way. In explanation of his view, he likened the human system to a machine in which there is a balance-wheel, the object of which is to carry the piston over the "dead point." Without this, if there were considerable resistance, the engine would stop. The injection of a very small quantity of blood after hæmorrhage might be somewhat analogous to that in its operation.—*New York Med. Journal*, September.

# THE ANNUAL ELECTION AT THE COLLEGE OF SURGEONS—THE DINNER—THE "CONJOINT SCHEME."

By THOMAS GREEN, F.R.C.S.,
Consulting Surgeon to the Bristol Royal Infirmary.

THE last annual election at the Royal College of Surgeons proceeded and ended much as usual. There was, however, one matter for congratulation on the part of those who think that past faithful services should be rewarded, and not slighted. The re-election of Mr. Hilton, in spite of the opposition offered on the grounds that, having served the office of President, he should retire from the governing body of the College to make way for younger aspirants, is a proof that the Fellows appreciate long and faithful services. If men were elected into the Council for the sole purpose of gratifying personal ambition, then the reasons advanced against Mr. Hilton's re-election might carry some weight; but if the good government of the College be the essential object sought for, then the services of experienced men should be retained and not rejected. I have ever heard that Mr. Hilton was always a most efficient, attentive, and able member of the Council.

The Fellows' dinner was an entire success; it could not be otherwise under the presidency of Mr. Erasmus Wilson, than whom no man in the profession is more respected, not alone for his position in the profession, but as well from his munificent gifts, both to the College on behalf of science, and to other institutions in the sacred cause of charity. Mr. Wilson is one of those noble-minded men who think wealth is given for other purposes than mere selfish gratification—that it was given for the good of others, to lessen the bitterness of the draught to those fated to drink from the cup of adversity. The usual toasts and speeches were gone through. The President of the College of Physicians replied for his own College; he referred to the "Conjoint Scheme" in words of approval, expressing a hope that it would soon be complete and carried into execution. Anything coming from Sir G. Burrows demands the serious attention of the profession; he has at all times endeavoured to promote its best interests and uphold its dignity. No one thinks more of his opinion than I do, and not one person felt more pleasure in seeing his elevation to the highest office in the profession, and to the highest distinction the State confers on our profession, than his old friend and fellow-pupil. We both learnt surgery together at St. Bartholomew's Hospital as dressers under a great master, Sir W. Lawrence. I had thought but little of the "Conjoint Scheme" before hearing the opinion of Sir G. Burrows, believing it a thing quite impracticable, and existing only *in nubibus;* believing the various conflicting interests could never be brought into harmonious action; and I now think that if it is ever carried out it would become a source of frequent jealousies and dissension—anything, in fact, but the means of fostering a happy family. Knowing, now, that the "Scheme" finds favour with several influential members of the Council of the College, I have thought a good deal of it, and can come to no other conclusion than that it will be injurious to the true interests of the College should it ever join in carrying out this "Scheme." I confidently believe that from the day when the seal of our College is affixed to that Scheme, the downward progress of a great institution has commenced; it may at first be slow, but I fear it will be too sure. The College has everything to lose and nothing to gain. The College of Surgeons of England is an institution of which its Fellows and Members may well be proud. The first charter was given to the College in 1800; the men in whose hands it was first placed were the most eminent surgeons of the day—Hawkins, Earl, Keat, Blicke, Chandler, etc. Those men undertook the task; they gave the weight of their names and fame to the young institution; as well, they gave their time and talents, and I believe their money with no sparing hand. Under such auspices and with such aid it became a great institution with a rapidity unparalleled in the history of any college or university in this country. Its diploma was sought for almost universally by those who wished to hold a respectable position in the profession for a period of over fifty years, at a time when no legal enactment whatever required the possession of that diploma, except, I believe, the office of surgeon to a prison; and as well at a time when any man could call himself surgeon, and practise as one, without any qualification whatever. This proves the estimation the College was held in both by the public and the profession. Its diploma became a passport to those requiring surgical aid, not alone in our own country, but throughout the vast extent of the British Empire. Those men who carried its diploma to the distant colonies and dependencies of England, became to the College the heralds of its fame. May it not be safely asserted that our College, though not strictly a national institution, is known in remote quarters of the world where our really national institutions were never heard of? All that it has done, however, is perhaps exceeded by the creation of the Museum contained within its walls; that magnificent and unrivalled collection is the wonder and admiration of all those able to appreciate the treasures it contains. This Museum was commenced last century by the most gifted genius English surgery ever possessed—John Hunter,—and brought to its present state of perfection by the combined and continued efforts of the most eminent surgeons of the present century. A question here crosses the mind—"Can that Museum be kept up, and perhaps added to, should the College become a partner in the 'Conjoint Scheme'?" In considering this subject there are many questions to be answered; for example, the licentiates of the new Board will, I presume, be qualified to practise surgery without having any further authority from the College. Will they be permitted to call themselves surgeons, in contravention of the Medical Act? In short, will they become members of the College of Surgeons? will they become eligible to fill surgical appointments in public medical institutions, infirmaries, hospitals, lunatic asylums, prisons, workhouses, etc.? One thing, it is certain they will be qualified to practise surgery. If so, how many of those who in future enter the profession will apply to the College for its diploma?—will half the present number? But be the number what it may, if there is to be a large falling off in the number of those who now apply for the diploma, can the Museum, library, etc., be kept up as they have heretofore been? can the power and influence of the College be what it has been? This is a serious question, as it affects the future of the College. These and other questions should be well considered before the "Scheme" can be accepted by the College. The Fellows and Members have a right to expect that the Scheme with its full details should be made known to them, and that the Council will not give their assent until the Fellows and Members have given their consent. Without that the seal of the College ought not to be affixed to the contract.

There is one matter which I feel reluctant to call attention to, but where important interests are at stake it must be done. I desire not to say one disrespectful word of the Apothecaries' Company, and am willing to admit all that its admirers can say in its favour; but when it is proposed to form an alliance between that Company and our College, one is compelled to say such a thing ought not to be done. The Apothecaries' Company is, after all, a London trading company; and our College, or any college incorporated under Royal Charter for the promotion of science, cannot enter into a copartnership with such a body, however respectable, without sacrificing its dignity. The power to grant a licence to practise medicine was given to it by accident in 1815. The Act of that year gave the Society a most extraordinary monopoly over the general practitioner of medicine in England and Wales. The first physician in the land could not prescribe and make up medicine without incurring the pains and penalties of the Apothecaries Act, while his groom could prescribe and his stable-boy dispense with perfect impunity, the latter of course calling himself a druggist. There is another aspect to this matter which should be considered. If the Company be admitted one of the partners in the "Conjoint Scheme," it will perpetuate their power as a medical examining body; whereas if the Company continue to stand alone, that power may be brought to an end by disuse, it being more than probable that in future those seeking admission into the profession will by choice look for a qualification from one of the colleges or universities of the kingdom; and thus, if the applicants to the Company cease, its powers come to an end. When the Medical Act passed, in 1858, it was thought by many that as the monopoly of the Company was brought to a close it would relinquish for the future its claim to examine and qualify for the profession—in fact, the Company was advised to do so at the time by a

portion of the medical press. But it did nothing of the kind; it can scarcely be expected that it would do so, having an undoubted right to continue to enjoy those privileges which the law allowed to remain in its hands. A new feature in the case has lately been found out: those who planned the Scheme settled that the College of Surgeons was not to appoint its own examiners in surgery, or, in other words, that it was to relinquish its most important functions. It now turns out, fortunately, that the College can do nothing of the kind; and there we may hope, as far as the College is concerned, the matter ends.

The advocates for the Scheme have advised the College to apply to Parliament for power to do that which the charter forbids them to do. May we hope that the College will never do anything of the kind? To do so would be nothing more nor less than to abdicate its position, and voluntarily to relinquish the most important duties with which it has been entrusted by its charter—namely, to test the fitness of those who seek to practise a most useful and noble profession.

The College of Surgeons is threatened with all kinds of pains and penalties should it not join the "Scheme." We are told that Parliament will appoint an examining body, and exclude the College of Surgeons; that it is to be left out in the cold. We are also told that the College of Physicians and the Apothecaries' Company are to unite, and form a co-partnership of their own; to start an opposition establishment to the College of Surgeons in granting the licence to practise surgery. It being borne in mind that the College of Physicians have a right by their charter to examine and qualify in surgery, it is most unlikely that the College will seek the aid of the Apothecaries to do that which they can do so much better without them. So close a junction between Pall-mall East and Blackfriars is one of those things most unlikely to occur. Imagine what the shades of Harvey, Mead, and Baillie, whose names threw a lustre on the College in past times, would think of such an unnatural alliance! The College of Surgeons of England can take all those threats for what they are worth, and enter on the contest, should it come, feeling confident that

"Thrice is he armed that hath his quarrel just."

For my own part, I have only to add, in conclusion, that in all the chances and changes and trials of life I have never missed attending the annual election of the College, and the dinner afterwards. This could not be done without some inconvenience, and occasionally some sacrifice of time, and perhaps something else. There could be but one motive for this—a feeling of loyalty and attachment to an institution which I have ever admired, and in whose welfare I have ever felt a deep interest, never forgetting the oath I took on becoming a Member, at all times "to maintain the dignity and welfare of the College."

[**** Mr. Green has the full measure of our sympathies with regard to the Conjoint Scheme, but we are also bound to add that his views with regard to the Society of Apothecaries are peculiarly his own.—Ed.]

## FROM ABROAD.

### Epidemic Diphtheria in Milan.

From the Report of the Milanese Committee of the Italian Medical Association (published in the *Annali Universali di Medicina* for September) on Diphtheria, which prevailed epidemically in the province of Milan during 1873, we extract the following particulars:—

During the year there occurred in 1101 communes of that province 3319 cases, 1587 of which (47·81 per cent.) terminated fatally. Of these, 1690 were males, with 793 (46·92 per cent.) deaths, and 1629 females, with 794 (48·73 per cent.) deaths. Of the 3319 cases, 492 (268 males, 224 females) belonged to families in easy circumstances, and of these there died 213 (111 males, 102 females)—that is, at the rate of 43·29 per cent. Of the 2827 (1422 males, 1405 females) belonging to poor families, 1374 (682 males and 692 females) died, or 48·60 per cent. The proportion of the well-to-do individuals attacked is sufficiently considerable to show that good hygienic conditions and proper nutriment do not afford security from attacks of the disease, but that they may contribute to the favourable results of treatment. The influence of age is shown by the following figures:—Of the whole number of cases (3319) and deaths (1587), there were 496 cases, with 283 deaths (57·19 per cent.), during the first year; 1528 cases, with 884 deaths (57·84), from one to five years of age; 787 cases, with 340 deaths (43·29), from six to ten years; 289 cases, with 65 deaths (19·13), between eleven and fifteen years; 89 cases, with 9 deaths (10·21), between sixteen and twenty years; 52 cases, with 8 deaths (15·88), between twenty-one and twenty-five years; 78 cases, with 8 deaths (10·25), above twenty-six years. A fact worthy of notice with regard to the ages is that the number of patients above ten years of age was much greater among the well-to-do classes than amongst the poor. Thus, while of the 492 of the former, 127 (25·81 per cent.) were eleven years old or more, of the 2827 of the latter only 381 (13·47 per cent.) had reached this period. The mortality, however, was greater in these latter, being 17·06 per cent. as compared with 11·81 per cent. in the well-to-do classes.

The following are the conclusions which are drawn from a comparison of the reports of the various health officers of the communes which were attacked by the disease:—1. All the practitioners of the province who have had to treat patients suffering from diphtheria are of opinion that the disease is transmissible and contagious. 2. The disease, unchanged in its characteristic features, becomes alike developed and prevails at all seasons and in all climates—in localities which are dry, with pure air, as in those which are humid, and poisoned by mephitic and palustral miasmata. 3. While it is not exclusively confined to any epoch of life, it has a predilection for early age—*i.e.*, from infants at the breast to children below ten years old. 4. The mortality is largest below five years of age, and goes on decreasing with age and with the decreasing numbers of those attacked. 5. The sexes are alike in liability to the disease and the mortality that attends it. 6. Rigorously speaking, the disease assails in the same proportion individuals belonging to families in easy circumstances and those who are poor; but the former furnish a smaller mortality. 7. When the disease appears in a family or in a house where there are many children, a large portion of these become successively attacked. 8. Although the disease has in many cases presented itself to practitioners with the symptoms of the angina developed, and in others the primary symptoms, owing to their mildness or to the ignorance of parents, have been overlooked, yet in most cases symptoms of general disturbance have been recognised, and have preceded by twenty-four or thirty-six hours, or even by four days, the appearance of the diphtheritic deposit. 9. Death has usually been rapid, taking place in the majority of cases not later than the third day, and accompanied with the symptoms of carbonic poisoning. Deaths have, however, occurred on the seventh, tenth, or even the twenty-eighth day, and then with symptoms of albuminous nephritis, paralysis, etc. 10. The mean duration of the disease, when the issue has been fortunate, has usually been from ten to fifteen days. In a few cases which have been attended with consecutive phenomena, months have sometimes elapsed before the cure has been completed. 11. No curative treatment, which can be regarded as at all constant, has as yet been discovered. 12. The measures most to be relied upon are prophylactic, and these are to be sought in the careful administration of public hygienic measures. These, the reporter states, are in the Milanese province in a woful state of backwardness.

### Vaccination and Revaccination in Milan.

In the same report is given a return of the number of vaccinations and revaccinations performed in the province of Milan during 1873. The total number of births in the year amounted to 41,009, and of the vaccinations to 30,007. Of these, 28,506 were vaccinated with "humanised" lymph and 1501 with "animal" lymph. Of the 28,506 vaccinated with "humanised" lymph, 28,326 furnished successful results, 28 spurious results, 51 no results at all, and 101 were unverified. Of the 1501 in whom "animal" lymph was employed, 1206 furnished successful results, 16 spurious, 18 none at all, and 261 were unverified. There were 2634 revaccinated. Of this number, "humanised" lymph was employed in 1448, with success in 483, with spurious results in 128, with negative results in 711, and with unascertained results in 124. Of the 1186 revaccinations with "animal" lymph, the results were successful in 426, spurious in 19, negative in 437, and unascertained in 304.

### Hydrophobia in New York.

By the last medical journals received from the United States, it would seem that a panic has prevailed in New

York with respect to hydrophobia, although it is doubtful whether this arose from any great excess in the number of cases that really occurred. It seems much more to have depended upon the attention which the daily press of that city has paid to it, and the elaborate expositions that have appeared in the columns of the *Tribune* and other newspapers. At all events, much needless alarm has been caused, and several hypochondriacs have for a season believed themselves, and have even been believed by others, to be the subjects of the disease. One case has made an especial stir, and has brought the late Surgeon-General, Dr. Hammond, prominently before the public. It seems that having been requested by a friend, who had under his care a case of hydrophobia, to make a post-mortem examination, he not only declared that he had discovered some very characteristic microscopical appearances in the cortical substance of the brain, and the medulla oblongata, but supplied an account of his investigations (read at the Neurological Society) with accompanying illustrations to the *Tribune*, in which it was published as a wonderful discovery. This, of course, has caused great scandal to his professional brethren, and in the September number of the *New York Medical Journal* Dr. Hammond publishes a defence of his proceedings. We may first observe that the coroner's jury, which had been summoned after the patient's death, after pronouncing their verdict that the deceased had died of hydrophobia, in answer to the question put by the coroner, whether these post-mortem examinations were of any scientific value in determining the pathogeny of the disease, replied in the negative by a majority of six to four. Of course, such a question put by an English coroner, and such an answer given by an English jury, would be ridiculous were they not impossible. But it is very different in New York; for there a remarkable modification of the jury law has been made. Thus, while, among ourselves, exemption from attending on juries is regarded as a valuable privilege, there, even eminent members of the medical body seem to regard it as no grievance to be called upon so to act in cases in which their special knowledge may be of service. And in such cases the jury is composed *exclusively* of members of the profession. In the present one ten such were empanelled, some of whose names are well known in this country.

However, it is not surprising that Dr. Hammond, who believes that he has made a discovery, refuses to abide by the dictum of even such a jury, especially as no reasons were assigned for regarding the post-mortem examination as destitute of scientific value. He observes that the symptoms of hydrophobia are of such a character as to show that the cortical substance of the brain, the medulla oblongata, and the spinal cord, are in some way or other disordered. Dr. Clifford Allbutt has found, on microscopical examination in two cases, that the cortical substance was in a state of granular degeneration; and Dr. Hammond found in the present case that this substance was in a state of fatty degeneration, of which granular degeneration is often the first stage; and this, in spite of the opinion of the jury, he regards as a fact of scientific value, seeing that the patient was highly delirious. On examining the medulla oblongata, besides extravasation of blood, he found the nuclei of the pneumogastric, the hypoglossal, and the spinal accessory nerves in a similar condition; and he cannot regard it as of no scientific value in a case in which there were spasms of the larynx and pharynx and of the respiratory muscles, and irregularity of the action of the heart, to find the points of origin of the nerves which go to the parts in question in a state of structural disorganisation. At the upper portion of the spinal cord, also, he ascertained the existence of granular and fatty degeneration of the grey substance and the nerve-roots, which, in a case wherein there was spasm of the muscles of the neck and chest, and disturbance of the function of the spinal accessory, must be regarded of scientific value. It seems that some of the jury were of opinion that the appearances which Dr. Hammond described were induced by the action of the alcohol which he had used as the hardening agent; but this he scouts as ridiculous, and declares that his process was almost identical with that employed by Lockhart Clarke. The jury, he considers, consisting as it did of physicians who are not histologists, is quite incompetent to pronounce an opinion upon the subject. As for himself, he says that he did not enter on this task unprepared, for he has been a microscopist for more than twenty years, "and have laboured not altogether without success to advance science in the direction of histology. As many of my friends very well know, I have made special study of the histology of the nervous system."

Certainly his medical colleagues seem to have dealt rather harshly with Dr. Hammond, in pronouncing investigations as of no scientific utility which may be regarded as having supplied material, not of much positive present value, but useful for future consideration and comparison. But there is surely great inconsistency on his part, while denying the competency of even eminent members of the profession to pronounce an opinion upon the value of histological researches, to supply a long account of these, accompanied by woodcuts, to a popular newspaper, for the gratification of an ignorant, sensation-loving public, ready to believe anything placed before it, and to adopt conclusions, however premature. Such a procedure can only degrade the profession, and Dr. Hammond's excuse is that the practice is of daily occurrence, and that it is hard that he should be selected as the occasion for condemning it. Perhaps this has arisen from the mischievous character of his communication, as tending to keep up the panic respecting hydrophobia that had seized hold of the public, and leading it to believe that discoveries of importance have been made, while little more than speculations have been broached. However this may be, it is cheering to find that the most respectable organs of the American medical press most forcibly deprecate the indulgence of this thirst for unprofessional publicity.

## REVIEWS.

*The Anatomy of the Lymphatic System.* By E. Klein, M.D., Assistant Professor at the Laboratory of the Brown Institution, London. 1. The Serous Membranes. London: Smith, Elder, and Co. Pp. 98.

We take to ourselves a certain amount of shame in having so long postponed a notice of this magnificent work; but if even at this hour we succeed in reviving or creating an interest in one of the most interesting regions for anatomical investigation, we shall be in a certain sense justified.

It has long been known that certain kinds of morbid products tend to spread from the regions where they seem to originate to other parts of the body rather by the lymphatic system than by that of the blood-vascular series. Such are the poisons of syphilis, the germs of cancer, to a certain extent also of tubercle, and in even a more marked fashion the products of a poisoned wound. But our investigations into the mode in which these various morbid products were conveyed from one spot to another were greatly hampered by our want of knowledge as to the nature of the structures—vascular and glandular—concerned in the process, for until the publication of "Frey's Researches" we might be said to be ignorant of the mode in which the various elements constituting a lymphatic gland were related to each other. Still more important was the advance made by Von Recklinghausen, which demonstrated the continuity of the serous cavities with the lymph-channels; and it is mainly to a further development of these researches that this volume is devoted. This great development would hardly have been possible had it not been for the discovery of Recklinghausen that nitrate of silver can be used as a stain for these tissues in such a fashion as to enable all their special peculiarities to be readily recognised.

In the first chapter Dr. Klein deals with the characters of a free endothelium, such as may be seen on the surface of any serous membrane. There are for the most part broad flat plates, fairly transparent, but at intervals the uniformity is broken by polyhedral cells of granular protoplasm, possessing the characters of young cells, and for the most part surrounding openings from the serous surface into the lymphatic tracts beneath. In many instances these openings exactly correspond to the structure of plants in appearance, and, to a certain extent, doubtless in function. But, besides these, certain areas occur where the whole cells seem to be germinating, assuming an irregular, often club-shaped appearance, and frequently containing several nuclei which seem to break off, together with a certain amount of the surrounding protoplasm, as free lymphoid bodies.

This endothelium rests on a ground substance, the structure of which is in many ways important. It is not easily examined in the natural condition, and many precautions are required to enable us to see it in a state not likely to give rise to erroneous impressions. By far the most important of these are the lymphatic structures arranged in patches or tracts. These contain actively growing cells, which give off portions of their substance in the shape of lymphoid bodies. Nowhere has the serous and subserous lymphatic system been

better studied than in the centrum tendineum of the diaphragm. The lymphatics in this situation can be readily injected as a natural process by introducing into the abdominal cavity such a substance as Berlin blue, prepared for the purpose. This is readily taken up by the lymphatics, and serves to indicate their size, relations, etc. In this way may be distinguished certain lymphatic trunks and lymphatic capillaries. The trunks are provided with valves, and have a spindle-shaped endothelium; the capillaries vary greatly in calibre at different points, have no valves, and are lined by a sinuous endothelium. As already indicated, these lymphatics are in free communication with the abdominal cavity on the one side, and the pleural on the other, through the openings or structure already referred to.

From the variations of the position of the diaphragm during inspiration and expiration, and the relation of these vessels to the tissues of the diaphragm, they must be made alternately to expand and to contract, those on the pleural side being contracted or compressed when those on the abdominal side are in the opposite condition. Thus by these motions a continuous pump-like action must be carried on whilst breathing lasts, which must be of no small importance as a circulatory force in the lymphatic system in this situation.

With a consideration of the lymphatic vessels of the serous membranes, Dr. Klein's third chapter is entirely occupied, whilst in his fourth he enters briefly into a consideration of the most important facts relating to the disposition and growth of blood-vessels in serous membranes. The development of capillaries in a young growing lymphatic nodule is exceedingly interesting. The branched cells which constitute such important elements in these lymphatic structures are in direct connexion with the growing ends of the capillaries, which seem, in point of fact, to grow by the following out of these cells and their gradual differentiation. Sometimes, indeed, the process of growth is reversed; the cells becoming vacuolated, and perhaps even differentiated, before any connexion is formed with a neighbouring capillary.

In many ways even more important is the second section of Dr. Klein's work on the pathological conditions of the structures he has been investigating; but here we are even more forcibly reminded of the difficulty of handling aright such a work as this in the form of a review. It has, indeed, been a question to our mind whether in such a case it would not be better to indicate at once our high opinion of the value of such work, and to refer our readers to the original source for further information. Any attempt at an abstract must necessarily be futile. Of the value and importance of the work there can be but one opinion, and undoubtedly this is greatly enhanced by the exceedingly fine engravings which constitute one of the most important features of the work.

## PROVINCIAL CORRESPONDENCE.

### BIRMINGHAM.

October 3.

Opening of the Winter Session of Queen's College.

The winter session of Queen's College was opened on October 1 in the theatre of the Midland Institute, Dr. Wilkinson, Rector of St. Martin's, presiding and distributing the prizes to the students, and Professor Hill, the Borough Analyst, delivering the opening address. Dr. Hill took for his topic public health—hygiene, in fact,—and discoursed largely and eloquently on his favourite theme, telling the value of a knowledge of the vital laws which regulate the health of the individual and the community at large, and which, when ignored or set at defiance, endanger the well-being of the people. The lecture was replete with wisdom and information, treating of all the chief subjects relating to sanitary matters. He denounced emphatically the indiscriminate use of alcohol, and warned the students of the dangers and the fascination of strong drinks. In speaking of the protection which vaccination provides against the ravages of small-pox, he strengthened his arguments in its favour by a tabular statement of figures, which showed convincingly the lessened mortality from the disease since its introduction. We may sum up by stating that Dr. Hill's lecture was replete with wisdom and information, treating in the fullest manner all the chief points relating thereunto.

The address was a most able one, and was listened to by an attentive and appreciating audience, consisting of past and present students, with a goodly sprinkling of friends and a few of the fair sex. Dr. Hill is a good speaker and spoke to the point. Being an officer of health, his dicta will necessarily have great weight and influence with the public.

After the lecture the prizes were presented to the successful candidates, of whom, as usual, there were only a few; for we have continually remarked that most of the prizes fall to the lot of a certain class, and these are, we presume, the hard workers. The meeting was regarded as a most successful one; and the prosperity of Queen's College was predicted by the chairman in consequence of the accession to the office of Warden of Professor Poulton, who had formerly been a most popular associate of the institution with the students.

The only hitch we noticed in the proceedings of the day was the non-delivery of the prize medal awarded by Professor Anderson to Mr. Whitcomb for practical chemistry. This omission will tend greatly to discourage students hereafter competing for prizes which are offered by the Council of the College, if the Professors are at liberty, after the awards have been made, to withdraw the same, as no one at the present day can be expected to devote their time and attention to studies of a high and important character if any doubt exist as to their ultimately receiving that which they are justly entitled to if successful. One can hardly feel from the report that the Council will not, upon due consideration, still award to Mr. Whitcomb the prize for which he competed.

### LIVERPOOL.

Epidemic of Scarlatina—Suggestions for Improving the Health of the Town—Coloured Green Peas.

After having enjoyed a long interval of comparative healthfulness, Liverpool once more stands at the head of the list of unhealthy large towns. She is now in the midst of a terrible epidemic of scarlatina, which last week carried off no fewer than eighty-four victims—the largest number ever known to have died from it in this town during any one week. The probability of some such result was recognised by Dr. Trench so far back as last year, and, by a letter sent to every medical man resident in Liverpool, he asked for co-operation in his endeavours to limit the spread of the infection. So deeply rooted, however, seems to be the prejudice against the employment of public disinfection, and so fatal the facility with which, in a large and overcrowded town, the poison of scarlatina is spread, that none of the oft-reiterated warnings as to consequences have induced any but a comparatively small number to avail themselves of the means for disinfection provided by the Corporation, or have been sufficient to lead to the adoption of such an isolation as to prevent speedy communication from one house to another; and until the early registration of infectious disease and the satisfactory isolation of those affected by it are rendered compulsory, it seems hopeless to think that any effectual check can be imposed on an epidemic after it has once settled on a town like this.

In Dr. Trench's letter, to which I have previously alluded, and which was first written to the President of the Medical Institution on December 30, 1873, the following passages occur: "I will illustrate the desirableness of disinfection in all cases of contagious sickness by the history of scarlatina during the last year. There were during the first quarter twenty-two deaths from that disease; during the second quarter, fifteen deaths; and during the third quarter, thirty-three deaths. There is thus reason to believe that by rigid isolation and by those other hygienic precautions which, as a rule, are recommended and adopted by physicians, aided by the disinfection of the bed and clothing of the sick, the disinfection of the clothing of members of the family who had been in attendance on the sick, and by the disinfection and cleansing of the rooms of the houses where sickness had prevailed, the progress of the disease might to a great degree have been arrested. That this was not successfully done was the more to be regretted, because during the present or fourth quarter of the year the deaths from scarlatina have increased to 135, and we are, in all human probability, in the face of a severe epidemic. . . . But, though the sickness from scarlatina has been great, there has been no proportionate amount of disinfection required or practised by the public. Apart from the cases which terminated fatally, the knowledge of which

only reached the sanitary office by the weekly returns of the registrars of deaths, there were only thirty-four notices of the existence of scarlatina received during the thirteen weeks of this quarter."

With a view of mitigating the grievous sanitary evils under which Liverpool labours, Dr. Trench has recently suggested that the sanitary inspectors shall report on houses where the only check between the sewer and the dwelling-rooms is a bell-trap, and that in such cases it shall be required of the owner to cut off all communication between the interior of the house and the sewer, and make the effluent-pipe discharge itself just above the surface of the ground outside into a well-trapped drain. This would certainly render it all but impossible for sewer-gas to find its way into hundreds of houses by what is now its easiest passage—viz., the kitchen drain-pipe. It is not long since I saw the interior of two houses thrown into one, which had been fitted up, and in most respects very judiciously fitted up, as a day nursery for the infant children of poor parents who were compelled to be absent from their homes at work, but in which there were two straight four-inch drain-pipes passing, without trap of any kind whatever, directly into the sewer, and up which a current of sewer-gas was flowing so strongly as instantly to extinguish a candle held over them. Before the infants were actually received the defect was remedied; still, in hundreds of other houses similar or worse defects exist, but, as was to be expected, Dr. Trench's suggestion for applying a remedy has raised a strong opposition on the part of house-owners.

While speaking of sanitary matters I cannot help alluding to some of the revelations recently made by Mr. Davenport, the inspector of the Nantwich rural sanitary authorities, concerning the boatmen and their families who live in the canal boats which ply on the River Weaver. Three-fourths of the boats known as "slows" are the permanent homes of families, sometimes six or eight in number. One boat had eleven, and another seven living on board. The cabins of two of them, of an average size, were of 200 and 250 cubic feet capacity respectively. In one case persons suffering from small-pox were being conveyed through the district in one of the boats. In another the dead body of a child, who had died of typhus fever, was lying in one part of the boat, while the mother was ill of the same disease in the cabin. These boats convey cargoes which are often widely distributed, and may easily, therefore, be the means of spreading disease. At the last census there were some 1100 women—each representing probably a number of children—in Lancashire and Cheshire living in boats lying moored at the time when the census was taken.

A few days since a firm of grocers here were summoned for selling preserved green peas, whose colour had been communicated by means of a salt of copper. Both coloured and uncoloured peas are exported by French firms to this country, the colour of the coloured ones being in some instances imparted by the means indicated above.

## MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 1:—

Bullen, Beresford Henry, 89, Upper Kennington-lane.
East, George Edward, Hounslow.
Greenwood, John William, Preston, Lancashire.
Jones, William Makeig, Blaenavon, Monmouthshire.
Morgan, George, Pontypool, Monmouthshire.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDREW, J. LAWTON, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—Medical Officer of Health to the Mossley Urban Sanitary District and to the Staley Urban Sanitary District.

BURDETT, H. C. (late Secretary and Superintendent of the Queen's Hospital, Birmingham)—Secretary of the Seamen's Hospital, Greenwich.

BUTTER, GEORGE BLEECK, L.R.C.S. Edin., L.S.A.—Medical Officer to No. 8 District of Bedminster Union, Somerset, *vice* W. A. Concanon, resigned.

DEAN, THOMAS, M.D.—Medical Officer of Health for the Burnley Rural, and the Burnley, Brierfield, Nelson, and Trawden Urban Sanitary Districts.

DUKEYNE, THOS. EDWARD, L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer for the Endon District of Leek Union, Staffordshire.

MACKENZIE, LEWIS, L.R.C.P. Lond., M.R.C.S. Eng.—Resident Medical Officer to the London Hospital, *vice* W. A. Kibbler, L.R.C.P. Lond., M.R.C.S. Eng., resigned.

### BIRTHS.

HAMILTON.—On October 4, at 30, Northampton-park, Canonbury, N., the wife of Thomas Hamilton, M.B., F.R.C.S.E., of a son.

KEELAN.—On September 3, at Roseau, Dominica, West Indies, the wife of Nicholas Walter Keelan, M.D., of a son.

MIDDLEMIST.—On October 5, at 10, Bedford-place, Russell-square, the wife of Robert Percy Middlemist, M.R.C.S., of a daughter.

TRAVERS.—On October 6, at 2, Phillimore-gardens, W., the wife of W. Travers, L.R.C.P., F.R.C.S., of a daughter.

### MARRIAGES.

BROCKLEHURST—GREAVES.—On September 30, at St. John's Church, Hackney, Thomas Howard Brocklehurst, M.R.C.S., of Holmes Chapel, Cheshire, to Caroline Mary Edith, elder daughter of the late George Greaves, F.R.C.S., of Manchester.

EWALD—TRACY.—On October 1, at St. Stephen's, Westbourne-park, Henry, youngest son of the late Rev. F. C. Ewald, D.D., to Frances Mary, eldest daughter of S. J. Tracy, L.R.C.P., M.R.C.S., of 69, Ladbroke-grove, Kensington-park.

FENTON—MARRIOTT.—On September 30, at St. Michael's Church, Coventry, Mark Anthony Fenton, M.D., youngest son of J. Hoysted Fenton, Esq., of Stranahely, co. Wicklow, to Martha Jane, eldest daughter of James Marriott, Esq., J.P., of Coventry.

HATTON—UNTHANK.—On September 30, at St. Mary's, Nottingham, William Henry, eldest son of William Hatton, Esq., of Neachley, Shropshire, to Mary Hannah, eldest daughter of Anthony Unthank, M.R.C.S., of Nottingham.

HENTY—MITCHELL.—On September 30, at Tonge, Kent, George Mansfield Henty, of Linares, Spain, eldest son of George Henty, M.D., of Camden-road, London, to Hannah, youngest daughter of the late Richard Mitchell, Esq., of Upchurch, Kent.

LAYTON—GREENE.—On October 6, at Lilleshall Church, Salop, George Layton, of Liverpool, son of John Layton, Esq., of Ely-place and Canonbury, London, to Sarah, daughter of John Greene, M.R.C.S., L.S.A., of Muxton, Salop.

SALTER—HAYCOCK.—On October 7, at St. Stephen's Church, Paddington, James Salter, M.B., F.R.S., to Fanny, youngest daughter of the late Edward Haycock, Esq., of The Priory, Shrewsbury.

SIMPSON—HARMAN.—On October 7, by special licence, at Jersey, J. M. T. Simpson, Capt. 84th Regiment, son of J. M. Simpson, M.D., of Blenheim House, Southampton, and Hawkstone House, N. Malvern, to Mary Louisa, third daughter of the late J. B. Harman, Esq., of Great Marlow, Bucks.

WILSON—ROWLATT.—On September 22, at St. Andrew's Church, Bath, Orville M. Wilson, son of the late Alexander Wilson, M.D., to Eliza Annie (Lizzie), youngest daughter of the late William Rowlatt, Commander R.N., and granddaughter of the late Rev. W. H. Rowlatt, of the Temple, London.

WILKINSON—YATES.—On October 1, at St. Matthew's Church, Nottingham, Joseph Cradock Wilkinson, L.S.A., of Regent-street, Nottingham, to Frances, daughter of the late John Yates, Esq., of Lockhurst, U.S.A., and niece of J. Yates, Esq., J.P. and D.L., Oakwood Hall, Rotherham.

### DEATHS.

BLACKSTONE, JOSEPH, M.R.C.S. Eng., L.S.A., at 1, Gloucester-road, Regent's-park, N.W., on October 1, aged 78.

DUFF, CHARLES MURRAY, Deputy Surgeon-General, Madras Army, at Mandalay, Burmah, on September 21.

FISHER, WILLIAM WEBSTER, M.D., Downing Professor of Medicine in the University of Cambridge, at his residence, East Lodge, Downing College, Cambridge, on October 4, in his 76th year.

SWAN, JOSEPH, F.R.C.S. Eng., of Tavistock-square, London, formerly of Lincoln, for many years a Member of the Council of the Royal College of Surgeons, at Filey, Yorkshire, on October 4, aged 83.

TATE, GEORGE RALPH, M.D., F.L.S., late Royal Artillery, at Wallington Lodge, Fareham, on September 23, aged 39.

TROTTER, JOHN, M.D. Edin., M.D. Durham, at 53, Old Elvet, Durham, on October 2, in his 79th year.

### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Applications, with testimonials, to the Chairman of the Weekly Board, on or before October 12.

CARNARVONSHIRE AND ANGLESEY INFIRMARY.—House-Surgeon. Candidates must be registered medical practitioners, and acquainted with the Welsh language. Applications, with testimonials, to the Secretary, on or before October 13.

DENTAL HOSPITAL, 40, LEICESTER-SQUARE.—Dental House-Surgeon. Candidates must be Licentiates in Dental Surgery of the Royal College of Surgeons. Applications, with testimonials, to G. A. Ibbetson, Esq., Honorary Secretary, on or before October 14.

KENT.—Analyst. Candidates must possess competent medical, chemical, and microscopical knowledge. Applications, with testimonials, to F. Russell, Esq., Clerk of the Peace for Kent, Sessions-house, Maidstone, on or before October 12.

LANCASTER INFIRMARY AND DISPENSARY.—House-Surgeon. Applications, with testimonials, to the President, on or before October 12.

NEWTON ABBOT UNION.—Medical Officer for District No. 9. Applications, with testimonials, to the Clerk of the Union, on or before October 13.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-ON-TRENT.—Junior Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. Ralph Hordley, Secretary, on or before October 21.

Parish of Lambeth.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. B. Wilmot, Clerk, Guardians' Board-room and Offices, Pleasant-place, Brook-street, Kennington-road, S.E., on or before October 12.

Ramsgate and St. Lawrence Royal Dispensary, Ramsgate.—Resident Medical Officer. Candidates must be doubly qualified and registered. Applications, with testimonials, to the Secretary, on or before October 20.

Tunbridge Wells Dispensary and Infirmary.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before October 14.

University College, London.—Professor of Comparative Anatomy and Zoology. Applications, with testimonials, to John Robson, Esq., B.A., Secretary to the Council, on or before October 31.

West Bromwich District Hospital.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to P. D. Bennett, Esq., Honorary Secretary, West Bromwich, on or before October 13.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Builth Union.*—Mr. John Jones has resigned the Builth District; area 68,410; population 4250; salary £55 per annum.

*Luton Union.*—Dr. G. C. Pauli has resigned the Barton District; area 6717; population 1796; salary £40 per annum.

*Norwich Union.*—The Eighth District is vacant; population 6528; salary £75 per annum.

### APPOINTMENTS.

*Belford Union.*—John Cunningham, L.R.C.P. Edin., L.R.C.S. Edin., to the West District and the Workhouse.

*Lunesdale Union.*—Robert A. Wilson, M.B. and C.M. Glasg., to the First District.

*Lutterworth Union.*—Herbert W. Fagge, M.R.C.S. Eng., L.S.A., to the First District and the Workhouse.

*Narberth Union.*—Thomas H. Newsam, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Begelley District.

*Samford Union.*—Maurice S. Duke, M.R.C.S. Eng., L.S.A., to the Stratford District.

*Southampton County.*—Arthur Hill Hassall, M.D., and Mr. Arthur Angell, appointed Analysts.

*Swansea Borough.*—Wm. Morgan, Ph.D., F.C.S., as Analyst.

Mr. H. C. Burdett, late Secretary and Superintendent of the Queen's Hospital, Birmingham, has been appointed Secretary to the Seamen's Hospital, Greenwich.

The opening meeting of the approaching session of the Medical Microscopical Society will take place at the Royal Westminster Ophthalmic Hospital, on Friday, the 16th inst., at 8 p.m.

The Statistical Society, that has occupied apartments at No. 12, St. James's-square for nearly thirty years, as a tenant of the London Library, has recently changed its quarters to the house formerly occupied by the Principal of King's College, and its present address is Somerset House-terrace, Strand, W.C., London (King's College entrance). This change has become necessary by the simultaneous growth and development of both the London Library and the Statistical Society, and is therefore a matter of congratulation to both institutions.

Broadmoor Lunatic Asylum.—On January 1, 1873, there were in the Broadmoor Criminal Lunatic Asylum 507 patients, of whom 406 were males and 101 females. During the year, fifty-five were admitted, making the total number under treatment during the year 562. Seven were discharged to the care of relatives; three having recovered, were returned to prison to complete the terms of their sentences; twenty were transferred to various asylums, being still insane, after the expiration of their terms of imprisonment; two effected their escape; and twelve died, leaving in the asylum on December last 578 patients—413 males and 105 females. The daily average number resident during the year 1873 was 508; in 1872, 503; and in 1871, 483. The rate of mortality during the year was only 2·36 per cent., calculated upon the average daily population. Of the twelve deaths, six were due to diseases of the nervous system, three to diseases of the heart and lungs, and three to various other causes. A post-mortem examination was made in every case. The general health of the inmates and residents upon the asylum estate (amounting to a population of somewhat more than 400 persons) had been satisfactory. The value of out-door employment as a remedial agent in the treatment of insane persons has been abundantly confirmed in the working of this asylum.

Devon and Exeter Hospital.—At the conclusion of the business of the Weekly Board on Thursday, the results of the annual examination of the students of the Hospital were made known, and the prizes distributed by the Vice-President (C. J. Follett, Esq.). The prize given by the committee was awarded to Mr. R. J. Bryden, who was first in anatomy and physiology, and who passed well in medicine and surgery. The medical officers' prize was awarded to Mr. Lewis Reynolds as being first in surgery, the honours in medicine being taken by Mr. Wheaton, to whom a certificate of merit was given. The Vice-President addressed a few well-chosen remarks of advice and encouragement to those students who are leaving to continue their studies in the larger schools of the metropolis, especially urging them to retain a grateful recollection of their old *Alma Mater*, and to remember wherever they went they carried with them as a trust the reputation of the Ever Faithful City. The senior surgeon of the Hospital (C. H. Roper, Esq.), in thanking the Vice-President for his attendance and for the admirable way in which he had performed his share of the day's proceedings, called attention to the exertions of the house-surgeon of the Hospital in the cause of medical education in this city, and expressed a hope that the time was not far distant when the provincial hospitals should take their proper standing as the schools of medical study for the counties in which they were placed, and so properly prepare the aspirants to medical knowledge to duly profit by the immense advantages offered them in the larger fields of the metropolitan schools. Amongst those present were Admiral White, Prebendary Barnes, Rev. G. H. Shield, Rev. J. Bockett, Dr. Shapter, Dr. Lewis Shapter, Messrs. Bremridge, Geare, Vicary, Roper, Bankart, Wm. Cann, Batten, Force, etc.

Mortality in the Punjaub.—In the Punjaub, during the week ending the 1st of August last, the total deaths rose from 4654 to 4927. So far the death-rate continues low in every district. There was one death registered under the head of cholera; it occurred at Dehlon Police-station in the Ludiánah district. The total deaths from small-pox were 207, as compared with 206 in the previous week. The disease still continues virulent in the Ambálah district, and the towns of Shâhabâd and Sadhaurah still continue to suffer from it severely. Four deaths from small-pox were registered in the city of Peshâwar. There were 452 male and 438 female births registered.

The Cholera of Paris in 1873.—M. Jules Worm, Medical Officer attached to the Préfecture de la Seine, has just published his report on this epidemic, which prevailed from September to November. Advancing by Havre and Rouen, the first case occurred in the St. Louis Hospital on August 29, and was not followed by others until six days afterwards. The epidemic had attained its maximum by September 11, when thirty-eight deaths occurred. The total number of deaths amounted to 855, of which 566 took place in the town, and 289 in the hospitals. The proportion of deaths to that of the number of persons attacked was much the same as in former epidemics.—*Gazette Hebdomadaire*, October 2.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*L. Q. O.*—The Academy of Science, St. Louis, Missouri, was incorporated January 17, 1857.

*Vallence.*— "Good unexpected, evil unforeseen,
Appear by turns, as fortune shifts the scene;
Some, rais'd aloft, come tumbling down amain,
Then fall so hard they bound and rise again."

*Godfrey D.*—Thomas Guy, the founder of the hospital which bears his name, was the son of Thomas Guy, citizen and carpenter, who carried on the business of a lighterman and coal dealer in Horselydown, Southwark.

*Dell, jun.*— "Note here: Lucretius dares to teach
(As all our youth may learn from Creech)
That eyes were made, but could not view,
Nor hands embrace, nor feet pursue;
But heedless Nature did produce
The members first, and then the use.
What each must act was yet unknown,
Till all was moved by Chance alone.
Blest for her sake be *Human Reason*,
Which came at last, tho' late in season."
—Prior, "Alma," canto 1.

### Venesection and Dr. Richardson.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Since the subject of venesection has of late come under discussion, arraigned by one party against another, no one, I conceive, could with more propriety be fixed upon, for high professional attainments, searching physiological and pathological investigation, and accurate criticism, to try this question than Dr. Richardson. The cases brought forward and pronounced upon vindicate one party from aspersion and condemnation, while they instruct the other to ponder on facts. The thanks of both are due to Dr. Richardson. I am, &c., Thos. Stokes.

Nailsworth, October 5.

*R. S. D.*— "Confession will anticipate reproach;
He that reviles us then, reviles too much;
All satire ceases when the men repent—
'Tis cruelty to lash the penitent."

*Dr. Lee, Washington, U.S.*—The medical societies which publish *Transactions* are—the Royal Medical and Chirurgical, the Pathological, Clinical, Obstetrical, and, at somewhat longer intervals, the Epidemiological. For the first four, address the Secretary of each, 53, Berners-street, London, W.; for the Epidemiological, address Dr. Squire, Orchard-street, Portman-square, London, W. Most of the other bodies publish only in the periodicals.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—The Indian Public Opinion and Punjab Times—Indian Medical Gazette—Simla Civil and Military Gazette—The Navy—Sheffield and Rotherham Independent.

BOOKS AND PAMPHLETS RECEIVED—

Murchison on Functional Derangements of the Liver—West Riding Lunatic Asylum Reports, vol. iv.—Sanitary Report of Paddington for 1873-74, by W. Hardwicke, M.D.—Second Annual Report of the Secretary for Agriculture, Victoria—Day on the Comparative Value of Carbolic Acid and Mineral Oils as Disinfectants—Leale's Observations on Thoracentesis—Annual Report on the Health of the Parish of St. Mary Abbotts, Kensington, for the year 1873, by T. Orme Dudfield, M.D.—De l'Adénopathie Trachéo-Bronchique en Général, par Mons. le Dr. Baréty—Patents and Patentees, vol vii., by W. H. Archer, Registrar-General of Victoria—Arcadian Walks and Drives in the North-West Suburbs of London, by Alfred Johnson, M.D.—Introductory Address delivered at University College, London, by F. T. Roberts, M.D.

COMMUNICATIONS have been received from—

Dr. P. S. Williams, Baltimore; Mr. T. Stone, London; Mr. J. Lucas, Netley; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; The Registrar-General, Edinburgh; Mr. Eastes, London; Dr. L. Mackenzie, London; Dr. J. L. Andrew, Mossley; Mr. A. K. Cook, Greenwich; Mr. O'Donoghoe, Bristol; Mr. A. S. Dean, Burnley; Dr. Douglas Powell, London; Mr. D. Belinfante, London; The Registrar of Apothecaries' Hall; Mr. T. Stokes, Nailsworth; Mr. G. Southam, Manchester; Dr. Suckling, Birmingham; Mr. F. Gordon Brown, London; Mr. Kershaw, London; Mr. H. T. Green, Bristol; The Sanitary Commissioner of the Punjaub; The Secretary of the American Medical Association; Mr. T. Nunn, London; Dr. J. W. Moore, Dublin; Mr. R. Stephenson, Hornby; Mr. H. A. Rhodes, London; Mr. G. Oliver, Redcar; Mr. R. Barlow, Dalston; Mr. A. Bond, West Bromwich; Rev. T. Woodman, Mansfield; Dr. T. S. Walker, Liverpool; Mr. D. Seaton, Oakham; H. B.; Dr. Samuel Fenwick, London; Dr. J. B. Potter, London; Dr. A. Ernest Sansom, London; Mr. J. Chatto, London.

## APPOINTMENTS FOR THE WEEK.

*October* 10. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

12. *Monday*.

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

13. *Tuesday*.

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Surgeon Augustus Hall, R.A., "On the Treatment of Cholera by the Subcutaneous Injection of Chloral Hydrate." Dr. Bakewell, "Aneurism of Abdominal Aorta of unusual size."

14. *Wednesday*.

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

15. *Thursday*.

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

Harveian Society, 8 p.m. Mr. Henry Power, "On Purulent Ophthalmia."

16. *Friday*.

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Medical Microscopical Society, 8 p.m. Opening Meeting of the Session.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, October* 3.

### BIRTHS.

Births of Boys, 1064; Girls, 1091; Total, 2155.
Average of 10 corresponding years 1864-73, 2114·1.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 583 | 580 | 1163 |
| Average of the ten years 1864-73 | 654·3 | 641·2 | 1295·5 |
| Average corrected to increased population | ... | ... | 1425 |
| Deaths of people aged 80 and upwards | ... | ... | 37 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | 1 | ... | 6 | 1 | 1 | ... | 1 | 4 | 4 |
| North ... ... | 751729 | 1 | 2 | 27 | 1 | 2 | ... | 5 | 1 | 13 |
| Central ... | 334369 | 1 | ... | 12 | 3 | 2 | ... | 1 | ... | 2 |
| East ... ... | 639111 | ... | 1 | 39 | 2 | 9 | ... | ... | 4 | 7 |
| South ... ... | 967692 | 1 | 5 | 23 | 1 | 2 | 1 | 5 | 3 | 12 |
| Total ... ... | 3254260 | 4 | 8 | 107 | 8 | 16 | 1 | 12 | 12 | 38 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·473 in. |
| Mean temperature | 56·8° |
| Highest point of thermometer | 76·9° |
| Lowest point of thermometer | 42·7° |
| Mean dew-point temperature | 51·9° |
| General direction of wind | S.W. |
| Whole amount of rain in the week | 1·14 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 3, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Oct. 3. | Deaths Registered during the week ending Oct. 3. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2155 | 1163 | 76·9 | 42·7 | 56·8 | 13·78 | 1·14 | 2·90 |
| Portsmouth ... | 120436 | 26·8 | 60 | 35 | ... | ... | ... | ... | 1·79 | 4·55 |
| Norwich ... ... | 82257 | 11·0 | 50 | 47 | 73·0 | 40·0 | 55·2 | 12·89 | 1·31 | 3·33 |
| Bristol ... ... | 192389 | 43·3 | 145 | 76 | 71·2 | 42·1 | 54·2 | 12·33 | 1·23 | 3·12 |
| Wolverhampton ... | 70896 | 20·9 | 51 | 27 | 73·7 | 41·5 | 53·1 | 11·73 | 1·23 | 3·12 |
| Birmingham ... | 360892 | 43·0 | 265 | 157 | 73·8 | 43·2 | 53·8 | 12·11 | 1·09 | 2·77 |
| Leicester ... ... | 106202 | 33·2 | 122 | 46 | 74·0 | 42·0 | 54·0 | 12·22 | 0·41 | 1·04 |
| Nottingham ... | 90894 | 45·5 | 56 | 30 | 73·6 | 37·4 | 54·8 | 12·66 | 0·37 | 0·94 |
| Liverpool ... ... | 510640 | 98·0 | 314 | 319 | 73·0 | 42·0 | 52·7 | 11·50 | 1·24 | 3·15 |
| Manchester ... | 355339 | 82·8 | 240 | 182 | 76·0 | 38·8 | 53·4 | 11·89 | 1·62 | 4·11 |
| Salford ... ... | 133068 | 25·7 | 117 | 66 | 78·3 | 38·7 | 52·8 | 11·56 | 1·52 | 3·86 |
| Oldham ... ... | 86281 | 18·5 | 81 | 45 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 131 | 110 | 72·6 | 44·8 | 53·7 | 12·06 | 1·16 | 2·95 |
| Leeds ... ... | 278798 | 12·9 | 263 | 121 | 75·0 | 41·0 | 54·1 | 12·28 | 0·74 | 1·88 |
| Sheffield ... ... | 261029 | 13·3 | 202 | 125 | 76·0 | 39·5 | 53·1 | 11·73 | 1·20 | 3·05 |
| Hull ... ... ... | 130996 | 36·0 | 96 | 66 | 71·0 | 42·0 | 53·5 | 11·95 | 1·05 | 2·67 |
| Sunderland ... | 104378 | 31·6 | 110 | 56 | 74·0 | 42·0 | 56·0 | 13·33 | 0·50 | 1·27 |
| Newcastle-on-Tyne | 135437 | 25·2 | 108 | 73 | ... | ... | ... | ... | ... | ... |
| Edinburgh ... ... | 211691 | 47·8 | 143 | 75 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 388 | 255 | 64·2 | 42·7 | 50·8 | 10·44 | 1·55 | 3·94 |
| Dublin ... ... | 314666 | 31·3 | 148 | 158 | 65·2 | 34·3 | 50·4 | 10·22 | 0·47 | 1·19 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5245 | 3232 | 78·3 | 34·3 | 53·7 | 12·06 | 1·15 | 2·92 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·48 in. The highest was 29·94 in. at the beginning of the week, and the lowest 29·11 in. on Friday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## ADDRESS TO STUDENTS AT THE DENTAL HOSPITAL AND SCHOOL OF DENTAL SURGERY.

By WILLIAM SCOVELL SAVORY, F.R.S.,
Fellow and Examiner at the Royal College of Surgeons; Surgeon to St. Bartholomew's Hospital, etc.

After the distribution of prizes to the students of this School, on Monday, October 5, Mr. Savory, who presided, addressed them as follows:—

First of all let me offer my most earnest thanks to those who have paid me the great compliment of inviting me to occupy this place to-day. When my friend—your dean,—Mr. Rogers, called on me with this request, he will remember that I accepted the invitation without a moment's hesitation. Not unfamiliar with school work, I understood the compliment; but I fear it was only afterwards, when reflecting, that I fairly realised the full measure of my responsibility. But if I were somewhat hasty at first, let me assure you that I amply atone for this now in an almost overwhelming sense of responsibility—of responsibility which must attach to words, not of mine, but to those of anyone who ventures to stand where I do now. Let me, however, have done with myself. Again I beg of you to accept my warmest thanks for your great kindness, and to bear with me only for a few minutes longer.

Let me turn, then, to the pleasant duty of offering my most hearty congratulations to those gentlemen who have won the prizes which they have received to-day. The distinction is a most honourable one, and in gaining such honours they have given the best pledge at the outset of their career of future eminence and professional success. I would say to you, gentlemen, simply—Go on! Only accept these rewards, not as in any way a title to relaxation of study, but rather as incentives to further exertion. If what you have already done has achieved so much, think of what you may do in the future after many years of still greater effort. Nay, but give yourselves heart and soul to your work without depending or even reckoning on the reward. Cultivate by all means in your power the habit of steady and unflinching work; woo it until you come to love it; and then your whole life will be its own exceeding great reward. But for all of you, whether you have gained prizes or striven hitherto unsuccessfully, or not contended at all, there is this great and single fact—that your future career in the profession you have chosen must depend on yourselves. Be not deceived about this. Grasp thoroughly at the outset the truth, which sooner or later experience will confirm, that circumstances may be propitious or adverse; friends warm or cold, many or few. You may fancy that you owe much or little to chance or fortune; but in the long run success or failure will depend, and depend only, on yourselves. According to your conduct and your work, so will your future be. Each one of you, therefore, if health and strength be given to him, is in this sense master of his destiny.

Let me, however, say a word further on the subject of prizes. I know very well that we are not all of one opinion concerning their value, and some go so far as to think that the prize system is productive of more harm than good, inasmuch as by stimulating to the utmost competition in particular directions it entices the student into the practice of what is called cramming, and so spoils in him the habit of more sober and solid study which, in the long run, will lead to a much sounder education; and no doubt there is force in this objection. Only, I would submit that it applies to the abuse rather than to the use of prizes. If a man should set his whole ambition upon prizes, and think of nothing outside or beyond them, so much the worse for him. But surely it betrays some ignorance of what the nature of our work is, to suppose that working, and working successfully, for prizes is at all incompatible with gaining the very best education that any school can offer. If a prize system is judiciously appointed and skilfully carried out, it should become a most important means of promoting this great end. It should so accord, be in such entire harmony with the best course of study, that these distinctions should shine as lights on the sometimes dreary road which the student has to travel, guiding him by their cheering rays to the higher paths of professional eminence. And surely in these days of competitive examination it is hardly the time to pass a vote of censure or condemnation on the system of giving prizes. While we struggle for everything else—for power, place, wealth, nay, for our very existence—why are we not to struggle for prizes? And let me add this, which, after all, may go farthest, that a somewhat ample and prolonged experience as a teacher in one of our largest schools, and as an examiner at our colleges and universities, has taught me this: that, as a rule—subject to occasional exceptions, I admit, but as a very general rule,—the student who shines most in his school and college examinations does the best, is the best man, in after life; and that with us, at all events, the so-called practical man, who affects to despise everything but what he is pleased to call practical knowledge, is too often the very worst of professional Philistines. Why, gentlemen, do you for a moment question this? Then turn to the reports of our schools and the calendars of our universities, and see there if I am wrong. I say, therefore, make not prizes and distinctions of this class the end of your labours, but use them as helps upward, and get them if you can.

And this tempts me onward to say a few words on the great question—the greatest of all questions for us—the subject of professional education. Do not be alarmed. I have no intention whatever of dragging you through any lengthened discussion concerning past, present, and future legislation on this topic. I was about to add that you have a good guarantee that I shall not trouble you with this; for I myself know very little about it. Only I remember, by the way, a remark of the American humorist, that he preferred to talk on those matters of which he knew nothing, because he was then least hampered in expressing an opinion. But anyhow I will not trouble you with mine. What I would say of education is only as it concerns you as students,—and it comes to this. If I, as a surgeon, may venture to go so far as to offer any advice to you who are to become dentists, it would be—While you are students here, and as students, widen and extend and fortify the basis of your professional education. Be not in a hurry to complete your studies. Be rather anxious to make every step you take secure. Nay, if only you spend the time well, you will do wisely to prolong your hospital studies, for it is hardly possible that such precious opportunity can ever recur. And for a like reason give good heed to those subjects of your studies which some will tell you are of no practical account. It is not because they are in every sense the most important—no one assumes this,—but because, when you give up their pursuit here, the chances are that you will never trouble yourself about them afterwards. Remember that all your future labour will be in a special direction; that your work, if it is to be successful in the business of your life, must be hereafter and even now directed upon a particular point—upon the attainment of skill in the practice of a special art; and that therefore it will be well for you, while you have the best opportunity for it, to lay the foundation of what may be called a good general professional education; so that you may not merely assent passively to the view, but come thoroughly to realise the fact that the teeth are parts of the living body, and hold certain important relations to various other parts; that they are not isolated structures in their diseases and morbid actions, but suffer in this way more or less like other parts; that, in a word, although they have, as every other part has, a special, they have not nevertheless an isolated pathology—and this because, although they have, as every other part has, a special, they have not nevertheless an isolated anatomy and physiology. Naturally parts of a whole, so are they in their defects and diseases. Therefore—and pardon me if the inference be a trite one,—therefore, to know the teeth well, you must know much of the whole body. You will best work out the diseases of the teeth, not by confining your attention to them alone, but by comparing these with the like morbid actions elsewhere, and so looking at disease here by the light thrown upon it from around. And to know what disease means at all, you must surely, first of all, know something of health; and so, believe me, you will cure a toothache, or prevent one, all the better by-and-by for giving attention to anatomy and physiology now. And thus, gentlemen, because the longer you live and the larger practice you have so will your thoughts and ideas tend to become concentrated on a particular study, enlarge well and securely the field of your observation and reflection here.

And, indeed, I do not think I can overrate the value of the

advantages which you, students of dental surgery, at the present time enjoy. I do not know of any step which has, of late, been taken by our common profession so full of promise to those directly concerned in it as the establishment of a dental hospital and a school of dental surgery; so full of promise for the future, and even now yielding fruit. If you will only accept those advantages in a spirit worthy of those by whom this great work has been carried out—your profession, in its resources, will be developed so rapidly and largely, that, to those looking on, it will appear to enter a new phase of existence. Yes, while the full advantage of your most useful art is now no longer limited to those with comparatively ample means, but is given freely—as all such blessings should be—to the poor; you have, as you should have, scope of investigation, opportunity of acquiring knowledge, such as the most illustrious of your predecessors have never enjoyed. And not only are these incalculable advantages secured to you, but you are now able to obtain the guarantee that you have used them, in the diploma of Dental Surgery at the College of Surgeons. Here you become educated dentists, and there you have the means of satisfying the profession and the public that you are so. Am I not justified, then, in using strong terms when I speak of your present advantages in relation to the past? But, gentlemen, while, as I have said, I do not think I can overrate the advantages which are open to you here, or the value of such a diploma as now lies conveniently within your reach, yet need I say that they, even together, can by no means supply all the conditions of success. No; you may go through hospital practice and lectures, and study diligently, and then obtain without difficulty your diploma, and still you know you are only on the threshold of your career. So far, indeed, all is well. But do not fall into the fatal error of concluding that, because you have satisfied the examiners at the College of Surgeons, you ought therefore to be satisfied with yourselves. No; while you are earnest students of your art, you may, indeed, for your own and the public advantage, continue to practise it; but when anyone comes to persuade himself that he is a master of it, I fancy the time is at hand when he would do well, for his own sake and that of others, to retire from practice.

But, indeed, I should be sorry to doubt that there are some——many amongst you who are resolved to devote all their energy to the work which lies before them. Gentlemen, if you rightly understand the responsibility of the duties you undertake to perform you need no exhortation from me. You are happy in that you will have ample scope for the exercise of all your ability. From a scientific point of view, whether in anatomy or physiology, human or comparative, in natural history, the teeth stand in interest second to no organs of the body. In their pathology, too—in the diseases to which they are subject, and the changes they consequently undergo,—they yield in interest to none. And in addition to the interest which they share with all other structures of the body during life, from their durability through long ages after death they hold the record of man's remotest history. By the way, what a strange subject of reflection it is—that the teeth, so obstinately indestructible after death, are so prone to pass away during life. Thus, from the scientific side, there is work, and difficulty, and mystery enough; and from the side of practice surely the art of the dentist yields in usefulness to no other. Oh! the dentist is indeed a useful member of society. Well is it for those who know nothing of the beneficence of his ministrations. But how many are there who can boast thus? Not only is there so often urgent need of him, but the need of him is so universal. And although, as we must all earnestly wish, the art will doubtlessly—nay, must inevitably—make great advances in time to come, yet, if I may venture to express an opinion, I would say its present very advanced state is a subject of deep congratulation to us all. Is not the perfection of art *ars eclare artem?* And in this the dentist has no rival.

And now, gentlemen, I have done, for I must no longer trespass on your time. I am not insensible to the patience with which you all have listened to me. To the ladies especially I tender grateful thanks, not on my own behalf only, but on yours also, for their presence here to-day. Need I say how much the success of this proceeding has been thereby enhanced? If ever the time should come that students such as you will have to contend for the prizes of our profession, not with each other only, but with women too, still I would fain indulge the hope that there will always be left to us those women who will accept it as their mission to encourage the students of what may then prove to be the weaker sex. Ah! if amongst our students, then, anyone could try to win. For with all the talk which has of late beset this subject a trifling fact seems to have escaped consideration: women—some women, at least—may, and very easily if they will, rival, nay surpass, men in competitive work; but can men, being men, ever be brought to rival, to contend with, women?

But be this as it may, I trust that meetings such as this will never lack the presence and countenance of ladies. They absent, and these public honours would be without their chief charm. And as to-day, in your hour of triumph, when all is bright around, you have not looked in vain for woman's approving smile, so henceforward, if clouds should gather and darker hours come, may you still have her help, and then the consolation of her sympathy.

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# COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond., F.R.C.P.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

## Lecture VII.—Acute Tuberculosis (*continued*)—Treatment of Acute Tuberculosis.

In the treatment of acute general tuberculosis, little, unfortunately, can be done after the disease is fully established. It is only while the child is as yet free from the complaint, but when from family history or other cause we have reason to apprehend its occurrence, that we are able often to do much in preventing the development of this fatal illness.

If other children of the same parents have died of acute tuberculosis, very careful attention should be paid to the diet and general management of those who are left. A judiciously arranged dietary—avoiding excess of farinaceous food, on account of its tendency to promote acid dyspepsia,—regular meals, early hours, airy bedrooms, plenty of fresh air and exercise, and plenty of sleep, are all matters to which our care should be directed.

Such children are often very active mentally as well as physically, and it is important that the brain should not be unduly exercised or excited. A midday sleep should be enforced as long as possible, as, by this means, the brain is insured a necessary amount of repose. It is well, also, in such cases not to be too precipitate in forwarding the mental culture of the child. The lessons at first should be easy and short, and every care should be taken to avoid undue strain upon the faculties, so that the nervous system may not be overtasked.

In the selection of a residence, attention should be directed to the character of the soil: preference should be given to sand or gravel, and low-lying clay lands are, if possible, to be avoided.

An infant may be nursed by the mother if she herself be healthy and her milk suitable to the child; if not, a good wet-nurse should if possible be provided.

All digestive derangements should receive early attention, and in particular looseness of the bowels, however apparently trifling it may be, must never be neglected, as no functional disorders to which children are liable have a more immediate and depressing influence upon the processes of nutrition. Inflammatory chest affections also should be treated with the greatest care; and in the case of pleurisy early paracentesis is advisable, if at the end of three weeks from the beginning of the disease no signs of removal of the effused fluid have been noticed. The outbreak of any of the acute specific diseases should be regarded with very great anxiety, and for some time afterwards careful watch should be kept over the patient, so that the occurrence of any subsequent symptoms may be met by suitable treatment. In cases where the means of the parents permit the expense, change of air for a time to a dry and bracing but sheltered spot is of great value, and will do more than any amount of expenditure in drugs to remove the risk of after ill-consequences. This is especially true in the case of measles or hooping-cough.

When the disease has actually declared itself, no drugs appear to have any influence upon its progress, or any power in preventing a fatal termination. We are obliged to content

ourselves with the treatment of symptoms and of the secondary complications to which the disease almost invariably gives rise. It is highly desirable to reduce the pyrexia, as it is to this that the wasting is principally due. But unfortunately remedies which are found to lower the temperature in inflammatory chest affections have but slight value in cases where the fever is symptomatic of the formation of the grey granulation. Quinine and digitalis—drugs which are so useful in pneumonic phthisis—are here of little avail; and the hypophosphites, whose influence in the same cases appears sometimes to be almost magical, are of no service in acute tuberculosis. Iron and tonics generally appear to have no other effect than that of increasing the patient's discomfort; while cod-liver oil is very apt to derange the stomach, and if it agrees is seldom of any benefit. I have never seen a case of acute tuberculosis arrested or even retarded by cod-liver oil. We can do little more than place the child in an airy room, supply him with a diet regulated with a due regard to his powers of digestion and the irritable condition of his bowels, order a mild saline, such as the citrate of potash, and wait for special symptoms to declare themselves.

The diarrhœa, which is so common in this disease, is not always readily arrested. During the earlier period of the illness, when the looseness probably depends upon mere functional derangement, it is amenable to the milder astringents, and may be stopped by a few doses of aromatic sulphuric acid with a small quantity of laudanum; but afterwards, when inflammation or ulceration of the intestinal mucous membrane is present, stronger measures are required, and we must have recourse to lead and opium, gallic acid, and other remedies, such as are found useful in an adult suffering from the same complication.

Inflammatory chest affections, when they occur secondarily to tubercle, must be treated in exactly the same way as if the complication were the primary disease; but if we are satisfied of the correctness of our diagnosis, we can have little hope that treatment will have any influence in retarding the fatal issue.

When the disease assumes the form of tubercular meningitis, care should be taken to keep the head cool and the feet warm, and to act upon the bowels by suitable aperients. The head must be shaved, and a bladder of ice be kept constantly applied to it. The ice should be broken up into small pieces, and all air should be squeezed out of the bladder before closing it up, so that the latter may fit like a cap upon the shaven scalp. Other applications to the head, such as leeches or counter-irritation by blisters or irritating ointments, appear to be actually injurious, and to have no other effect but that of hastening the fatal termination. If the feet are cold, they should be warmed by hot bottles. The diet of the child should consist of beef-tea, milk, yolk of egg, and, as he becomes weaker, the brandy and egg mixture.

The best aperient is a combination of calomel and jalap, and the action of the bowels may be assisted by enemata. The only other drugs from which any good ever seems to result are the iodide of potassium and perchloride of mercury. Recovery has in some cases been known to follow the employment of the iodide in large doses, but such cases in all probability were not cases of true tubercular meningitis. A simple meningitis at the base of the brain might present symptoms differing little from the tubercular form of the disease, and there is reason to think that a syphilitic inflammation of the cerebral membranes is occasionally mistaken for tubercular meningitis.

In tuberculosis of the peritoneum, when pain and tenderness are complained of, the child should be at once confined to his bed, a succession of hot linseed-meal poultices should be applied to the abdomen, and perfect quiet should be enforced. If the pain be very severe at any particular point of the belly, a leech or two may be applied, but care must be taken to arrest the bleeding early, so that the strength of the child may not be reduced. Diarrhœa must be treated by opium and astringents, and the diet should consist principally of milk and broths. If the case be seen early, this treatment may have the effect of quieting the symptoms for a time, so that the child may appear to recover. When the case is more advanced and the symptoms are severe, with rapid wasting and high fever, the condition of the child is hopeless. Little more can be done than to endeavour to relieve the pain by hot applications and the administration of opium by the mouth or by hypodermic injection. When the strength begins to fail, brandy and egg mixture should be prescribed.

## ORIGINAL COMMUNICATIONS.

# ON THE THERAPEUTIC VALUE OF SOFT WATER IN THE TREATMENT OF URINARY CALCULI AND INDIGESTION.

By JOHN C. MURRAY, M.D.

In 1776 the illustrious Scheele gave the first indication for the rational treatment of urinary calculi by discovering uric acid in their composition. This important event in animal chemistry was confirmed and followed up by Bergmann, Morveau, Vanquelin, Fourcroy, Pearson, Henry, and Brande. But the chief merit, next to that which hallows in our memory the name of the discoverer of uric acid, is due to Dr. Wollaston, of London. In 1796 our countryman proved that urates, phosphates, and oxalates were also components of urinary concretions, and in 1810 discovered cystin; thus placing the medical treatment of urinary calculi upon a rational basis, leaving little for after inquirers to add, except, indeed, that most important element, sufficient pure soft water.

Since the beginning of this century some fifty medical men and chemists have written upon the causes and cure of calculi; of these I find that twenty have hinted, or distinctly taught, sufficient to have led to a general acceptance by the profession of the solvent mode of treatment. It is, nevertheless, still possible to find a case like that related by Sir Thomas Earle—a patient so afflicted with a calculus as to require to stand on his head in order to micturate.

When physicians do, after more or less uncertainty, discover a case to be really one of stone, they think it a duty, and feel satisfied in handing it over to the surgeon for summary treatment. In this procedure they are supported by all our text-books. This voluntary relinquishment of calculus cases has, I feel certain, done serious injury to innumerable patients and also to medicine; for it cannot fail to have had the tendency of preventing physicians so carefully studying the subject as to be able, readily, to discover a calculus during its early history. It seems, moreover, to have lessened their confidence in their own prescriptions; hence the little advance which the present century has witnessed in this important department of medicine.

The *éclat* which attends the operations of the surgeon, who immediately relieves the patient from his sometimes fearful suffering, has hitherto had too much weight in preventing physicians from calmly entertaining the solvent mode of treating calculus cases. But to my mind the principal cause which has prevented lithotripsy from being as popular in the profession and much more beneficial to the public than lithotrity, has been that in soft-water districts there are few cases of stone, and in hard-water areas there is no menstruum, unless individuals take the trouble to collect rain-water for their meals and table. In Ireland, for example, where the water is generally soft and the diet simple, as fish and potatoes, the urine of the inhabitants is more copious and less dense than in England, and cases of calculi are exceedingly rare, as will be seen by the following table:—

| | | | | | |
|---|---|---|---|---|---|
| Ireland .. .. .. | 1 case of calculus in every | | | | 875,000 |
| Cork City .. .. | 1 | „ | „ | „ | 800,000 |
| Cornwall } Devon } .. .. | 1 | „ | , | „ | 293,000 |
| Glasgow .. .. .. | 1 | „ | „ | „ | 77,000 |
| Bristol .. .. .. | 1 | „ | „ | „ | 60,000 |
| London .. .. .. | 1 | „ | „ | „ | 38,000 |
| Norfolk County .. .. | 1 | „ | „ | „ | 34,000 |
| Copenhagen .. .. | 1 | „ | „ | „ | 22,000 |
| Norwich City .. .. | 1 | „ | „ | „ | 21,000 |
| Lexington (Kentucky) .. | 1 | „ | „ | „ | 16,050 |

The above table is from computations by Yellowly, Civiale Smith, and Peters. I have spent some time in anxious endeavour to test them, and such evidence as I have been able to collect is confirmatory. Since the introduction of Loch Katrine water into Glasgow, I believe it takes place after Cork.

The following statistics from Marcet will also serve to show how much more frequent calculi are in some hospital-fields than in others:—Cases in Norwich Hospital, 1 in 38 patients; in Guy's, 1 in 300; in Bartholomew's, 1 in 340; in St. Thomas's, 1 in 528; in Gloucester, Worcester, Hereford and Exeter, 1 in

394; in Newcastle, York, Leeds, and Manchester, 1 in 420; in Edinburgh, 1 in 1000; in Cambridge, 1 in 1140; in Chester, Liverpool, Shrewsbury, and North Wales, 1 in 3223 patients.

These numbers are, however, no certain indication of the prevalence of calculi: for example, in the Newcastle Infirmary the operations for stone average 4·4 per cent. per annum of the total operations there, whereas, to my knowledge, sufferers in the district are very numerous.

Some agent of especial potency must be in constant operation to cause the inhabitants of Lexington, Norfolk, Norwich, and London to be respectively 54, 41, 25, and 24 times more liable to stone than the poor of Ireland. Dr. England, of Norfolk, attributed the excessive frequency of stone in his quarter to the habit of eating bread new from the oven, to Norfolk dumplings, bad beer, and want of potatoes—all of them accessory; Mr. Crosse, of Norwich, to local disease and dyspepsia, causing superabundance of acid in the stomach and urine. Dr. Peters, Professor of Chemistry at Lexington, Kentucky, in 1846, said, "it is highly probable that the use of limestone water, and a corn and bacon diet, may be the principal cause of the great excess in the proportion of earthy phosphates and oxalate of lime calculi in this region." Since Hale's time in 1741, it has been a popular belief that hard water causes stone and gravel; and the *Times*, in an article on the Emperor Napoleon's case, said that "the mineral ingredients taken into the body in the drinking-water of particular localities" favour the formation of stone. I will not consume space by giving extracts from other authorities whose writings support popular belief in this question, but simply record my opinion that the popular belief is quite right; and that, in Mr. Crosse's opinion, dyspepsia, and Dr. Peters', that hard water induces calculi, we shall find a solution of the cause.

Hard water lessens the solubility of both flesh and vegetables, and neutralises a portion of the acid of the gastric juice; these together will in some degree influence the digestibility of each kind of aliment, especially albumen, fibrine, casein, and gluten, causing them to remain in the stomach partially reduced until more acid be secreted. Should it also happen that a greater quantity of food has been taken than scanty exercise and the wants of the system require, rancidity and acid fermentation may take place, generating butyric, acetic, or lactic acid. The crude, ill-digested pabulum which results is neither readily assimilated nor thoroughly oxidised in the organism, thus favouring the formation of oxalic acid and excess of urate of soda in the blood, and excessive acidity of the urine. Uric being a weak acid, lactic, malic, hippuric, sulphuric, or phosphoric acid may discharge it from its base as soon as it is eliminated from the saturated and scarcely alkaline blood. From such a state of digestion, and from such blood as is formed from it, the urine cannot be normal when secreted. Instead of soluble urea, there will be a liability to deposition in the tubuli uriniferi of oxalate of lime, uric acid, urates, or biurates of lime, magnesia, ammonia, or soda. If a person knew or suspected that deposits were taking place, and were to drink copious draughts of cold water, the diluted urine, as it passed along the uriniferous tubes, would wash away the threatened danger. But instead, the thirst which is excited is quenched, perhaps, by "hard October," and if the person be not relieved by an opportune attack of diarrhœa, there is an imminent risk of renal and then a vesical calculus.

In some cases, where the individual has changed from country to town life, is active and temperate in his habits, instead of acetous fermentation having time to begin in the stomach, the portion of acid which is alkalised by the ingestion of earthy salts is replaced by more (which, however, is neutralised in the duodenum), digestion proceeds, and the new blood being well oxidised, little organic acid remains in the system unconverted. Lime and magnesia may then displace soda from the alkaline phosphates, causing excess of earthy phosphates. This going on, in course of time the urine may become permanently alkaline. The earthy phosphates being little soluble, except in an albuminoid or acid menstruum, are deposited. Digestion may utterly fail, debility ensue, exercise become irksome, and oxalate of lime be found in the urine—a state of no little danger, as profuse perspiration or drinking too little water may prevent the almost insoluble precipitates from being carried out of the body.

My observations have led me to the conclusion that this latter state is most apt to occur in those who have removed from a soft to a hard water district, and that those who were born and have always lived in a hard water part of the country suffer rather from gout, rheumatism, uric acid, and urates.

Many conditions of life, such as climate, mode of living, race, age, and sex, are said to influence liability to formation of stone; but none have, in my opinion, so much potency as water. Water discovers the geology of the district from which it comes, and affects the climate, air, and food; hence it gives characteristics to a people. In Copenhagen, for example, where I found the water to indicate 17° of hardness, the liability to calculi is one in 22,000 of the population; and among their brethren, of the same original stock, in Norfolk, with water of about 30° of hardness, it is one in 34,000 to one in 21,000. Sex influences liability to calculi much less than has been said. From many causes, with which medical men are well acquainted, calculi may be found "twenty to twenty-three" times more frequently in the male than in the female bladder. My experience is, however, that, despite their more temperate habits, renal calculi occur with about the same frequency in the female as in the male, but their characteristic symptoms, being attributed to natural cause, are more frequently overlooked.

Of the three pabula of life—food, air, and water,—it is a most difficult question to solve which is the best factor of health, or, when impure, the most potent cause of disease. Pure food has attracted some, and pure air a considerable share of attention; so, too, has water, but with little apparent result, some of our village towns and cities being supplied with water which at all seasons has not even the merit of being a slow poison.

Let me pause a moment to contemplate a state of things which I trust will shortly be looked back upon with astonishment: that London, with its 6600 miles of streets, and its more than 4,000,000 inhabitants, possessed of wealth sufficient to purchase all the land in Wales, Cumberland, and Westmoreland—enjoying air so pure and food sufficiently wholesome to entitle it to be quoted as a model of health,—should be content to drink almost the worst water in the kingdom: where, if we happen to have been at Windsor one day, we may the next swallow a portion of what so lately formed an integral part of our body; and where the examiner of water supply takes as an instance of unity a very excellent mineral water, and computes other waters in the metropolis by it as fourteen, sixteen, seventeen, or eighteen times(a) less pure, according to the organic impurities.

I have called the water which the examiner in his monthly reports takes as unity, mineral water, for it indicates more than 20° of hardness, half of which is from sulphate of lime. If earthy matter in such a marked quantity were necessary or even useful in the human economy, this model water would indeed be irreproachable; but such is not the case. For children it is unnecessary; they receive sufficient phosphate of lime in their food for all the requirements of their growing frames. For the mature adult it is not harmless, being apt to cause indigestion, bilious attacks, and disease of kidneys and bladder. For the aged it is positively injurious, tending among other effects to fill up the nutritive canals of the bones with earthy matter, thus bringing on premature age and causing the urinary organs extra duty in getting rid of the earthy salts.

It is more than time that London reject water from every present source, and by means of a Government measure bring down from the Welsh, Westmoreland, or Cumberland lakes pure and soft water, so that residents and visitors may wash and be clean, drink and be well, and also be satisfied without thinking it necessary to add gin to the water "to kill the worms and prevent gravel."

In 1869 a Royal Commission sat upon the question of water supply, but, in spite of evidence given by the following skilled witnesses in favour of soft and pure water, instead of hard water and diluted sewage, the sources are still the same:—Drs. Lyon Playfair, M.P., Parkes, Franklin, Miller, Letheby, Odling, and Angus Smith; Messrs. Bateman, Way, Duncan, Sampson, Herron, and Rawlinson.

One of the great evils of the present day is good living and drinking too little water. Beer and other liquids which are drunk in its place are already so saturated that they retain but little solvent power; and even water in chalk and magnesian limestone areas is more ready to deposit earthy salts than to pick up more.

About five pounds of water are consumed daily in one way or other, and it is most important for the health that it be free from organic matter, and that it be of not more than 4°

(a) See Water Report for January, 1872.

of hardness; but if only one as in Glasgow, two as in Liverpool, or from one to two as in the lakes of Wales, Westmoreland, and Cumberland, so much the better for digestion, absorption, assimilation, and elimination of effete material; for the liver, kidneys, bladder, and prostate gland; for washing and trade uses. It is impossible to over-estimate the importance of a pure water supply; for, independent of the more obvious risks of occasional outbreaks of diarrhœa, fever, and even cholera, impure and hard water will induce a gradual loss of tone in the system, which will predispose to calculi even if the carbonate, bicarbonate, or sulphate of lime and magnesia did not. But that they do I feel most certain, having observed it in practice; and Dr. Bence Jones, by exhibiting lime and magnesia, found that their proportions were doubled in the urine. His conclusions were—that "the amount of earthy phosphates chiefly depends upon the amount of earthy matter taken into the body." I do not think I overstate the case when I say that for every known instance of calculus in London, there will be forty unheard of, unrecognised, or unrecorded ones, and in the provinces a still larger proportion. Hence, if one case has been found in every 34,000 inhabitants of London, a total of 4200 may be estimated, producing a daily sum of suffering, risk, and shortening of life, which, if it be possible to prevent, would warrant the Legislature in expending any amount of gold that might be required.

The profession has been very tardy in admitting—indeed, has scarcely yet acknowledged—that earthy salts, like every good thing, may be presented in excess, and that their presence in quantity may be attended with danger. The blood and urine being only capable of holding a small proportion of calcium salts in solution, these salts will be apt to be deposited from the blood in abnormal, and from the urine in inconvenient and distressing situations. I feel assured, however, that in a few years the fact will be more practically recognised.

In order to set at rest the specially interesting question—the possibility of dissolving urinary calculi—it is very desirable that in one or two London hospitals the solvent mode of treatment should receive a sufficiently exhaustive trial. If twenty cases or so were selected, the calculi proved, and if possible weighed and measured in the surgical wards, then transferred to the medical, and placed under acids or alkalies according to the kind of stone, the treatment being assisted by selected food, prepared with distilled water, and likewise as much of the latter given as could be drunk; and after sufficient trials, if the profession were favoured with a report, the question might soon receive satisfactory solution. Distilled or soft water, and plenty of it, is an essential element in the treatment, for the same water which incited the formation of stone will not redissolve it, even when assisted by chemicals. Plentiful draughts of soft water can increase the flow of urine (according to Vogel) twelve-fold, and hence will have a very material effect in the reduction of stone.

(*To be continued.*)

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

### A SERIES OF CASES ILLUSTRATIVE OF CEREBRAL PATHOLOGY: CASES OF INTRACRANIAL TUMOUR.

(*Continued from page* 119.)

(Under the care of Dr. HUGHLINGS-JACKSON.)

*Case* 14.—*Biliousness—Blindness and Optic Atrophy—Difficulty in Walking—Enlarged Head—Loss of Power in Legs, with Extension and Rigidity—Curvature of the Spine, and Talipes—Supposed Tumour of Middle Lobe of Cerebellum.*

Besides the foregoing (Case 13, and besides Case 8, July 12, 1873), I have recorded two cases of tumour of the Middle Lobe of the Cerebellum in the *British Medical Journal*, the first(a) November 4, 1871, page 528, the second July 20 and August 3, 1872. Although in those cases there were autopsies, the following case without autopsy is far more important. There can be little doubt that the patient has tumour of the middle lobe of the cerebellum. At any rate, he has had the symptoms which commonly attend intracranial tumour—viz., double optic neuritis, severe headache, and vomiting. He had also loss of power in both legs, and enlargement of the head—symptoms found in the two cases of disease of the cerebellum above mentioned as completed by autopsy.

When I first saw the patient I had no doubt he would gradually got worse and die, but now, about eleven years later, he is, although blind and unable to walk, in very good *general* health, and has evidently much pleasure in his sadly narrowed life. This, the quasi-recovery, is one of the important points in the case. To the objection that without autopsy there can be no *certainty* of the existence of tumour, no reply can be made. On the other hand, it is unwarrantable to conclude that recovery—*i.e.*, recovery to good *general* health—negatives intracranial tumour. It is not very uncommon for a child to escape with his life from a severe and acute cerebral illness very like tubercular meningitis. He usually, however, remains blind, and often subject to epileptiform seizures. Such illnesses are spoken of by some as "bilious fever," "gastric fever," etc. In a few of these cases the patient relapses and dies, and then an autopsy may reveal tumour. I have known a patient live five years from the onset of double optic neuritis; and in this case a tumour, which had grown from the sphenoidal fossa of the skull, was found by Dr. Claye Shaw, under whose care the patient was at her death.

At the least the following case is of interest as showing recovery from severe cerebral symptoms which do *mostly* depend on intracranial tumour.

I will only comment on some of the special nervous symptoms. Of the talipes and spinal curvature I shall speak on another occasion, when I consider the functions of the cerebellum. The loss of smell does not necessarily contra-indicate the diagnosis of tumour of the cerebellum—of a part at *a distance* from the olfactory lobes. The increase in the size of the head is supposed to be owing to "dropsy" of the lateral ventricles, the result of pressure by the tumour on the veins of Galen. From the greatly increased intracranial pressure thus induced, it is supposed that the olfactory bulbs have been much squeezed. There was loss of smell in Sir William Gull's patient. There was also in that case, as Sir William remarked, "gradual fading out of mental power." The patient whose case I have to relate was, and is still, intelligent, so far as ordinary observation enables one to judge. This, then, I grant, invalidates my explanation of his loss of smell. For it may fairly be argued, that if the pressure were enough to squeeze the olfactory bulbs so far as to *destroy* smell, it would squeeze the brain enough to impair its functions gravely. The absence of deafness is worthy of note. I believe deafness never occurs from intracranial tumour unless the auditory nerves are themselves directly squeezed.

A boy, then ten years of age, was sent to the Hospital for the Epileptic and Paralysed, April 1, 1863. He had been under Mr. Couper's care at Moorfields Ophthalmic Hospital for blindness from atrophy of the optic nerves, and was sent to me on the supervention of what I may call medical symptoms.

Eleven weeks before I saw him he had a "bilious attack." He was only sick one day; he strained a good deal, and brought up "yellow" thick stuff. There was severe pain in the forehead and back of the head, and this continued. His eyes began to blink because light was painful. In about five weeks he was quite blind.

When I saw him he looked quite well except for the vacancy of blindness. He had, however, besides the absolute blindness from atrophy of the optic nerves, complete loss of smell, and was subject to "fits" of a kind worthy of attention when considered with the subsequent loss of use of his legs. He "came over with faintness" and "*fell down from the knees.*" There was no convulsion. It was reported in the first account of these seizures that he lost the use of the *left* side. In the intervals of the attacks he had weakness of the legs. When I saw him, however, he could walk quite well, and could stand on one leg; but his mother reported that he had great difficulty in getting along when he had walked some distance. He continued subject to the attacks mentioned. He would fall off his chair when sitting, dropping on his knees, but after about a quarter of an hour he would pull himself up by the table. He was not insensible.

(a) In the remarks on the first of these two cases I have referred to a similar case which I saw some years ago in Guy's Hospital. That case is recorded in this journal (vol. ii. 1862, p. 226). I may take this opportunity of expressly stating that it was from Sir William Gull that I learned to diagnose tumour of the middle lobe of the cerebellum.

On May 5 he was reported to have "the dropsy." I therefore went to see him, and found that he had no œdema anywhere, but that he was much fatter. There was no albuminuria. I for the first time noticed that his head was large, and especially that it was broad; it was larger than it had been, and his mother said that the neighbours had noticed that it was getting bigger. He was in good general health, and seemed intelligent. He knew people who came into the shop by their voices. Towards the end of the month he took to his bed through increase of weakness; he could not stand, and his water began to dribble. He could raise himself up in bed. There was return of pain in the head.

I have no further notes of this case until December 9. The patient lived several miles from my house, and I did not find time to visit him. I was sent for because he had severe pain from the back of his head "to over the eyes." He could move his legs, but could not use them; his feet were rigid in extension. His hands were quite supple, and he could use them to feed himself, but did not cut his food, possibly because he could not see.

*Condition Eleven Years Later.*—From that time I have no further notes until I looked him up towards the end of 1871, and again recently. He now (1874) sits up, but cannot stand alone. The muscles of the legs seem well developed; the right foot is in the position of varus, and has been so for several years—for how many I could not learn. The left foot is in a different condition, that of valgus; the sole is flat, and the foot turns out slightly, the inner malleolus being prominent as the right outer malleolus is. There is also lateral curvature of the spine in the lower dorsal and in the lumbar regions, the convexity being to the right. His legs are well nourished; he has great power in them, more in the left, and can stamp vigorously. He usually sits up in his chair, and he showed me that he can go out into the back-yard without help. He catches hold of an iron support near him, swings himself up, then takes hold of the door, and so on from object to object; he gets along pretty briskly in this fashion.

## GUY'S HOSPITAL.

### CASES UNDER THE CARE OF MR. BRYANT.

Cases 1 and 2 are good illustrations of the statement which is often made, that cancer of the lip is the most favourable form of cancer. It runs a much longer course than even epithelioma does in other situations, and much more tardily affects adjacent tissues.

*Case* 1.—*Epithelial Cancer of the Lip of Twenty Years' Growth—Recurrent.*

William S., aged 74, a labourer, was admitted into Guy's Hospital, under Mr. Bryant's care, with a cancer of the lower lip. It appeared twenty years before as a small pimple. It grew to the size of the top of a man's thumb in three years, when it was excised. Eight months after it returned, and it grew gradually for sixteen years, when a second operation was performed. It again reappeared, however, some months afterwards, and has been growing for the last nine months. It now exists as an irregular epithelial cancer, the size of a shilling, in the centre of the lower lip, with some enlargement of the sub-maxillary glands.

On March 17 Mr. Bryant excised it with a V incision. The parts healed by primary union, the man leaving in a fortnight well.

*Case* 2.—*Epithelial Cancer of the Lip of Eight Years' Growth—Excision.*

Michael H., aged 50, a salesman, who did not smoke, was admitted into Guy's Hospital, under Mr. Bryant's care, with an epithelial cancer of the lower lip of eight years' growth. It was about the size of a shilling, and ulcerating. There was no glandular enlargement. It was removed by a V incision, and good recovery took place.

*Case* 3.—*Epithelial Cancer of Cicatrix of Stump—Amputation.*

James S., aged 58, was admitted into Guy's Hospital on November 13, under Mr. Bryant's care, with a large cancerous ulcer involving the extremity of the stump of the left leg. When four years old he had typhus fever, and as a consequence he had gangrene of both legs. Both were amputated below the knee-joint. He remained well for fifty years, when the cicatrix of the left stump became sore; and this, in spite of treatment, had never healed.

On admission it was the seat of a large cancerous sore, with irregular fungating borders, and infiltration of tissue. There is also much enlargement of the inguinal glands. Simply as an operation of expediency to take away a source of great inconvenience and debility, Mr. Bryant on December 6 amputated the stump above the knee. A good convalescence followed.

Of the following two cases of villous growth of the bladder, the first ran a very rapid course and the other a slow one of eight years. No doubt this difference is attributable to the greater amount and more frequent recurrence of hæmorrhage in the one case than in the other. It is now pretty generally considered that these villous growths of the bladder have nothing to do with cancer, but that they consist of nothing but arborescent masses of villi, and are, in fact, papillomata. This view explains why in some recorded cases the extirpation of papillomata of the bladder has not been followed by recurrence of the growth. They generally spring, as in Case 4, from some part of the trigone. It is fair to infer that this situation was the starting-point of the disease in Case 5, and that during the eight years of its existence it gradually spread until the whole mucous surface was occupied by it.

*Case* 4.—*Hæmaturia—Villous Growth in Bladder—Pyæmia.*

John S., aged 70, a shoemaker, was admitted into Guy's Hospital, under Mr. Bryant's care, on October 30. He was a healthy man who had never had any illness up to two months ago, when he observed blood flowed with his urine; it came away in clots. This lasted two weeks, when it gradually left him. At this time he had no pain on passing his urine, or other symptoms. He remained well for three weeks, when the bleeding reappeared, and continued till his admission. Ten days before admission he first had pain and difficulty in passing his water, and two days before he had retention. When admitted he had to have the urine drawn off. It contained blood in clots. He had no pain. A catheter was ordered to be passed twice a day.

November 2.—Urine was quite clear.

On November 3 blood reappeared, with pain in the hypogastric region.

He died on November 6. The bladder was much thickened, and at the left side of its base a villous growth existed, with a base two inches long; it was divided into two portions. Kidneys suppurating.

*Case 5.—Hæmaturia from Villous Growth in Bladder.*

John N., aged 37, was admitted into Guy's Hospital on March 23, under Mr. Bryant, for hæmaturia. It seemed that he had been passing blood with his water at intervals for eight years, the symptoms having appeared with some irritability of bladder. He had had repeated attacks of hæmaturia, the attacks lasting some months, and then leaving him. During the intervals his urine was clear, but bladder somewhat irritable. He had been passing blood for some weeks before his admission, and his urine was always passing. Blood passed in clots at times. No treatment was of use, and he died on April 18.

After death the bladder was found to be one mass of villous growth; not a point of the mucous membrane was free from it. The bladder was greatly thickened.

## WEST LONDON HOSPITAL.

### SEVERE STRICTURE OF THE URETHRA COMPLICATED WITH RIGORS—CONTINUOUS AND GRADUAL DILATATION—GOOD RESULT.

(Under the care of Mr. TEEVAN.)

Richard P., aged 47, cordwainer, was admitted into the hospital, on June 22, 1874, suffering from stricture of the urethra.

*History.*—Thirty years ago the patient caught his first and only gonorrhœa, for which he was treated with medicines only. Three years ago he began to suffer pain when urinating, and to experience much difficulty in the act. Two years ago he commenced to be attacked with rigors at distant intervals. One year ago he had to take to wearing a cloth inside his breeches, as the urine dribbled away from him night and day.

*Present State.*—The patient is in feeble health, and is much dejected. His pupils are contracted to mere points. Urine dribbles away night and day, and the bladder is not emptied.

Urinous smell about patient. The stricture is situated four inches and three-quarters from the meatus externus.

On June 24, Mr. Teevan tried to pass a small elastic bougie, but failed; at 8 p.m. the next evening the patient had a severe rigor, the temperature, as ascertained by Mr. Webber, going up to 103°. The patient was wrapped in blankets; a hot water-bottle applied to his feet, and some hot brandy and water given.

27th.—Two attacks of rigors in spite of ten-grain doses of quinine, which the patient began to take yesterday.

July 1.—Tried to pass different kinds of bougies, without success.

4th.—No. 1 olivary metal catheter was passed, but not left in.

10th.—Patient is a little better; one of the smallest elastic olivary catheters was introduced at 3 p.m., and tied in for twenty-four hours.

16th.—A rigor lasting one hour. Patient can occasionally pass a slight stream. The urine is very offensive, and contains much muco-pus.

18th.—No. 5 (French gauge) elastic olivary catheter was passed after failure with metal.

22nd.—Patient's bladder is regaining power, and there is much less dribbling. A small elastic catheter was tied in for fifteen hours.

24th.—A slight rigor.

29th.—No. 11 elastic catheter was introduced.

August 1.—No. 12 was passed.

5th.—No. 14 was introduced.

8th.—No. 15 was passed. Was made an out-patient yesterday. Holds water for four hours in the day; is only called up once in night. Urine improving.

12th.—No. 15 was passed. Patient says he has not been so well for years.

*Remarks by Mr. Teevan.*—The intense rigors which characterised this case were no doubt caused by the pernicious influence on the urinary tract of the pus pent up behind the stricture; and although manipulation with instruments determined their appearance, yet their presence was an indication that catheterism was urgently called for in order to permit the free escape of the pus. Immediately the canal became enlarged the patient's health began to improve, rigors no longer appeared, and dribbling ceased. This case showed what gentle catheterism would effect when carried out with French elastic instruments. No treatment could have achieved more than they had, and that, too, without the slightest risk to the patient's life; whereas no operation could have been performed without a certain amount of danger. The pathological conditions associated with this stricture were such as could not have been removed by any amount of rest or temporising measures. If in this case I had failed to introduce any instrument, the application of the *bougie armée* would have been indicated, and if that had proved futile there would have been nothing left but to have cut down on the stricture without a guide, and to have laid the part freely open.

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SMALL-POX is reported to have broken out at Todmorden. Several fatal cases have already occurred.

A NEW wing has been added to King's College, London. The dissecting-room and physiological laboratory are greatly enlarged, and new consulting-rooms and offices erected.

THE MEDICAL STAFF OF THE BELLEVUE HOSPITAL, NEW YORK.—The Commissioners of Charities and Correction in New York have just passed a resolution for reorganising the Medical Board of this hospital. This consists of nineteen members, twelve of whom are removed from their posts by this resolution. The names of these gentlemen, most of which are well known in Europe, are as follows:—Drs. Isaac Taylor, Lewis Sayre, John Crone, John Gouley, Fordyce Barker, Frank Hamilton, Alexander Mott, Thomas Markoe, Austin Flint., jun., William Polk, William Lusk, and E. G. Janeway. Thus far no reason has been assigned for taking such unusual and extraordinary action in regard to hospital appointments. This action of the Commissioners will seriously cripple the corps of instructors at the Bellevue Hospital Medical College, and if persisted in may result in the destruction of the school. It is darkly intimated that professional jealousies are at the bottom of this movement, and that the brilliant and rapid success of this school has made it altogether too dangerous a rival to older seats of medical learning.—*Boston Medical Journal*, August 13.


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# Medical Times and Gazette.

SATURDAY, OCTOBER 17, 1874.


## MR. SAVORY'S ADDRESS AT THE DENTAL HOSPITAL.

THE Committee of the School attached to the Dental Hospital of London did well to ask a man of Mr. Savory's high position in the profession to preside at the first public distribution of prizes to the successful students in the lecture-theatre of their new hospital in Leicester-square; and it was an appropriate and graceful act on the part of Mr. Savory, who is one of the Board of Examiners in Dental Surgery at the Royal College of Surgeons, to accept the invitation, and to deliver the address which we are glad to give to our readers this week. While congratulating the prizemen, Mr. Savory warned them not to make too much of their success, but to regard their honours rather as incentives to further exertions than as in any way titles to relaxation of study; and he took the opportunity to offer some defence of the prize system, pointing out that the objections sometimes made to it apply, not to the use, but to the abuse of prizes. If a prize system, he said, is judiciously and skilfully carried out, it should become a most important means of promoting education. "It should so accord, be in such entire harmony with the best course of study, that these distinctions should shine as lights on the sometimes dreary road which the student has to travel, guiding him by their cheering rays to the higher paths of professional eminence." And, as of greater weight in support of a rightly regulated prize system, he affirmed that his ample experience as teacher and examiner had taught him that, as a very general rule, "the student who shines most in his school and college examinations does the best, is the best man in after life," and that "the so-called practical man, who affects to despise everything but what he is pleased to call practical knowledge, is too often the very worst of professional Philistines." We believe that prizes in well-selected subjects, and well given, undoubtedly stimulate men to acquire a full, exact, and ready knowledge; and we should think that most experienced and able teachers will agree with Mr. Savory's advice to the students—"Make not prizes and distinctions of that class the

end of your labours, but use them as helps upward, and get them if you can." Mr. Savory forcibly urged upon his hearers the importance of their earnestly striving to lay the foundation of a good general professional education, to thoroughly realise the fact that the teeth are parts of a living body, and that "although they have, as every other part has, a special, they have not nevertheless an isolated pathology; and this because, although they have, as every other part has, a special, they have not nevertheless an isolated anatomy and physiology"; and therefore to know the teeth well the dentist must know much of the whole body.

All students may with profit read Mr. Savory's address, and take to heart what he, so distinguished and persistent a student, says of the necessity of continuous study,—"While you are earnest students of your art, you may indeed, for your own and the public advantage, continue to practise it; but when anyone comes to persuade himself that he is master of it, I fancy that the time is at hand when he would do well, for his own sake and that of others, to retire from practice."

## THE RIGHT HON. LYON PLAYFAIR'S ADDRESS ON PUBLIC HEALTH AT GLASGOW.

Dr. Lyon Playfair's inaugural discourse in the Public Health Section of the Social Science Congress at Glasgow fully comes up to the high expectations which were formed of it. For the last thirty years Dr. Playfair has been known as an accomplished chemical philosopher, and as having been constantly consulted on behalf of the public whenever there was need of a practical application of science to the protection of health and life. Moreover, though cognisant of the sanitary bearings of medical science, he is not a member of the medical profession, and therefore is qualified to sit in independent judgment upon its theories and doings. "Public health" in some respects is worn threadbare, and it was interesting to speculate as to the new light which the President would throw upon some of the old bare patches. It offers, too, a number of disputed points, on which we are glad of the judgment of one who unites the scientific with the practical.

The first question which occurs to Dr. Playfair is, Are we making progress in our sanitary measures? and, on the whole, he answers Yes; for he thinks the fact that the mortality of *England* was stationary between 1861 and 1871 is satisfactory. The causes of mortality are on the increase, and especially the crowding of the population into towns; therefore he thinks that a stationary mortality shows improvements in hygienic condition in *England*. For, alas! he has a different tale to tell with regard to Scotland, where the urban mortality, high as it is, is getting higher, and that of the rural districts is rising. The speaker refers to this again and again, and indignantly complains that legislation for sanitary matters is fragmentary, and that Scotland is neglected. Why should there not be one homogeneous sanitary law for the United Kingdom?

In seeking to explain the causes of the increasing mortality of Scotland, Dr. Playfair seems to point more to moral than to physical causes. He shows that above and beyond any influence of air, water, and soil, there stands *race* with its inherited and inborn peculiarities, mental and physical. Thus, he attributes part, at least, of the urban mortality to the emigration of the "Scotch" (really the so-called Anglo-Saxons), and the crowding-in of the Irish Celts into the large towns. But there are other causes which increase the mortality in small towns and rural districts. He spoke of the ill effects of dirt, drunkenness, and immorality; of the crowded populations, who have few pleasures above those of the lower animals, and who increase the faster in proportion as the death-rate is high. He spoke of the high mortality of illegitimate children; of the victims to the greed which prompted the institution of burial clubs; and of the habit of giving opiates and spirits to young children. If, as he truly says, the death-rate of children is a hygienic barometer of the surrounding moral and physical atmosphere, and if that barometer be falling in Scotland, there must be some social taint, some rottenness under the varnish of high religious profession, which ought to be probed and brought to light by the doctors, moral and medical. We are glad to see that Dr. Playfair repudiates the miserable doctrine that a high mortality is good for the race, on the principle of survival of the fittest.

The secret of public health, continues Dr. Playfair, is cleanliness, and first of all clean air. To show how much room there still is for research, he recalled the time when, in his own studentship, the air was held to be a mixture of oxygen and nitrogen, with moisture and accidental quantities of carbonic acid. The lamented Liebig showed that it contained ammonia; after a time ozone and nitric acid were detected; still later it was shown not only to be the receptacle of the gases which are the products of decay, but of hosts of microscopic entities which are inseparable factors in fermentation and putrefaction, not to mention the germs of febrile diseases of all kinds. We have scarcely begun the knowledge of air and its properties. The air is capable of burning up all the organic products it receives, provided it be well kept in motion, as the word *ventus* indicates, and it performs the same good office whether washed down by the rain or percolating a porous soil. On this point it may be said that he prefers the *eremacausis* or slow combustion effected inoffensively by a porous soil to the more rapid process of "cremation" of dead bodies. Years ago he himself proposed that the deceased inhabitants of towns should be put into the retorts of gas-works, so that their volatile products should give light to the living, whilst the harmless coke and ashes remaining might be buried. We might suggest that each generation might grow flowers in pots filled with the coke and ashes of its predecessors, and might refresh its brains with the ammonia. Thus the memory of the just, as George Herbert says, would be sweet in death and blossom in the dust.

From cleanness of air Dr. Playfair passed to cleanness of water; and we are glad to see that he is an uncompromising foe of that pollution of rivers which was the blot on the works of the early sanitarians of fifty years since. He spoke with emphasis of the vastiness of drawing supplies of drinking-water from a river which, like the Thames, receives the filth of a million of people. But he said that there was positively now no excuse for pouring the sewage of towns into rivers, "for there are now various effective and well-matured processes for purifying drains before the water is ultimately discharged into the rivers." We should have been glad to have heard his opinions more at large on this much-vexed question.

We have not space to follow Dr. Playfair in his observations on cleanliness of the earth, and of the fevers which infest modern Rome and Jerusalem, owing doubtless to the saturation of the soil with the filth of ages. We must state that he bewails the chaotic disorganisation in which the sanitary service of the country is found, and the universal inclination to "mistrust the doctors," and throw all the offices of inspection and control into the hands of lawyers. On such topics as these we think we may rest and be hopeful. The selection of lawyers for inspectorships purely medical and sanitary is partly a result of that kind of political conception which is inseparable from popular government by parties; partly it is the result of that want of scientific enlightenment which past generations have bequeathed to us. But we may well be hopeful. Sanitary science is hardly half a century old. It has some doubtful and unsolved questions to settle, and some mistakes to confess and undo; but it cannot fail to grow in soundness and credit when taught in such calm, practical, judicially minded, and comprehensive discourses as this of Dr. Playfair's.

## MR. JOSEPH LUCAS ON THE SUPPLY OF WATER TO LONDON BY HORIZONTAL WELLS.

That the water-supply of London has been vastly improved within the last twenty years is indisputable. No company can now draw a polluted supply from the neighbourhood of Charing-cross or Battersea, and with it distribute the germs of any disease that may be prevalent in London. The mineral ingredients of the London water need not detain us, because the worst that can be said of them is, that they are inconvenient for purposes of washing, causing undue waste of alkali and soap, and furring up boilers, but not that they cause any injury to health. Nay, some high authorities believe the lime-salts contained in these waters to be beneficial by promoting a vigorous growth of the bones. We do not agree with this, but need not dispute it here.

It is the organic impurity, measured by the ammonia, constantly present in the London water, which makes its wholesomeness suspected. The quantity of this is variable, but always greatest after storms and floods, which bring into the Thames the offscourings of every kind of impurity, including manure from the surface of cultivated land, and the contents of ditches which receive slops and other refuse of houses. This kind of impurity, unluckily, is one which cannot be altogether measured by chemical analysis; for its sting lies not in the ultimate composition, but in the active living and propagating power of germinal matter floating in the water, which is capable of development and of setting up disease when received within the animal body. When the water of one of the London companies is visibly turbid, knowing what the source of the turbidity is, we condemn it as unfit for use. But we know that not even the great care bestowed by the companies can prevent it from being turbid at times. Moreover, no filtration is capable of arresting the matter of cholera discharges, even if it can the germs of intestinal worms and of febrile diseases. Water in which living bodies are visible to the eye, naked or microscopic, is not fit to drink, and such bodies are sometimes seen in the London waters. "Three of the Thames companies," says Mr. Wanklyn, "namely, the West Middlesex, the Grand Junction, and the Chelsea, supply pure water during the summer months." During the winter, however, the water supplied by these companies is by no means so pure, whilst the Southwark and Vauxhall and the Lambeth do not supply very pure water even in summer.(a)

Taking these facts as one of the bases of his argument, Mr. Joseph Lucas(b) points to the related fact, that the Thames water, though befouled in its channel by the sewage of towns and manure of fields, yet is quite pure at its source.

The waters of the chalk, which supply the tributaries of the Thames, are, as regards organic impurity, as pure as any water can be. The utmost care bestowed on the Thames water by those water companies whose filters are most perfect cannot restore the original state of purity in which it issues from the chalk.

Here, for instance, are comparative analyses which we take from Mr. Wanklyn:—

| | | Parts per million of ammonia. | |
|---|---|---|---|
| | | Free. | Albuminoid. |
| 1. | Caterham Water ... ... ... ... | ·04 | ·00 |
| 2. | Kent Company's Water ... ... | ·01 | ·02 |
| 3. | From the Thames above Hampton ... | ·04 | ·28 |
| | Another sample ... ... ... ... | ·01 | ·23 |
| 4. | Grand Junction Company ... ... | ·01 | ·07 |

These are taken as samples of multitudes of analyses; and it will be seen that the albuminoid ammonia—*i.e.*, the ammonia representing undecomposed organic matter—is (1) in the Caterham water, representing the *sources* of the Thames, *nil;* (2) in the Kent Company's water, after a suspicion of contamination from leakage into it, ·02 per million; (3) in the Thames ·28, or fourteen times as much; and (4) in the Thames water, as delivered in a filtered state by the Grand Junction Company, ·07, or three-and-a-half times as much as the water of the original source.

Well, then, may Mr. Lucas say with Horace, "Why not go to the fountain-head?" Why not take the pure water as it exists in the chalk, and before it has been allowed to be befouled by the storm-water and sewage which find their way into the channel of the Thames? Why say—

"Magno de flumine mallem
"Quam ex hoc fonticulo tantundem, sumere"?

He who takes water from the spring

"is neque limo
"Turbatam haurit aquam, neque vitam amittit in undis;"

he will neither have the nauseous yellow unfiltered storm-water on his table, nor will he drink a fatal dose of cholera poison.

Mr. Lucas, as becomes a geologist, enters largely into the general question of the arrangement of strata which leads to the existence of springs. He shows how that, when porous strata are placed upon impervious strata, as chalk upon clay, the rain which falls on the chalk sinks slowly through it till it reaches the clay, and as it cannot sink through the clay, it flows along the upper surface of it, till it either makes its appearance on the earth's surface as a spring, or is lost in the sea.

Let us imagine the roof of a house, and suppose it covered with a thick blanket. When rain falls, the blanket would first become saturated; next, any water which soaks through it would flow down the roof; and anyone who wishes to catch rainwater from a roof, puts a horizontal gutter at its lowest part.

In like manner Mr. Lucas proposes to cut a series of horizontal drifts, driven along the strike of the beds, in the hills to the south of London. It is not necessary to adhere to the horizon of the slates, as the chalk blanket is so thick as to hold water in itself up to some hundreds of feet above the retaining clay below. Mr. Lucas does not lay any claim to be the first person who has proposed this scheme, but he is entitled to no less credit for taking up a scheme in abeyance, and demonstrating its utility by the aid of the latest lights of science. In fact, it is a strong recommendation of his scheme that it was, in substance, proposed some time ago by Mr. Barlow, who believed that "by driving a tunnel parallel with the river, twenty miles long, from Lewisham to Gravesend or a little beyond, 60,000,000 gallons per diem might be obtained."

Such of our readers as care to know the situation and course of the horizontal tunnels which Mr. Lucas proposes to cut in the Surrey and Kent hills, in order that he may tap the huge reservoirs in the chalk and greensand, and give London a copious supply of pure water, must consult his treatise, which they will find well supplied with diagrams.

The work is not an exposition of a finished engineering scheme, but it seems to us that the suggestion has many advantages, which must obtain for it a respectful consideration whenever the Government set to work seriously to supplement the existing scarcely pure and adequate supply. The water would be delivered at a uniform low temperature summer and winter, not lukewarm in the one and frozen in the other as now. The series of horizontal wells proposed to be made would constitute huge subterranean reservoirs, with no fear of bursting, as is the case with many on the surface. There would be no need for the occupation of large tracts of land for reservoirs, nor any unsightly works to deface and divide landed property, and necessitate compensation or purchase. As the porous strata would discharge themselves into these artificial cavities, so they would become more absorbent, and would take up the rain that falls on their surfaces, and prevent it from running

(a) Wanklyn "On Water Analysis," third edition, p. 34.
(b) "Horizontal Wells, a new Application of Geological Principles to Effect the Solution of the Problem of Supplying London with Water," by J. Lucas, F.G.S., of the Geological Survey of England. London: Stanford. 1874.

off in floods. The expense would be saved of huge aqueducts, such as are proposed in order to bring water from the lakes of Wales or Cumberland, and which might be damaged by accident, or by mobs, or by a hostile force. Mr. Lucas's horizontal wells, which would be gathering-ground, reservoir, and conduit in one, would need no supervision for repairs. In carrying out either the Welsh or Cumberland schemes, as many miles of tunnels must be made as, if driven into the Surrey hills, would furnish a supply equal to that of two water companies. The proposed horizontal wells would be made by degrees, but rendered useful from the first. Inasmuch as any scheme for taking water from the chalk would involve rival claims, it should be made as far as possible comprehensive, and include the whole Thames basin within the chalk area. This could not be done without providing storage, and the practical issue is how best to use as a store reservoir the enormous volume of chalk above the line of permanent saturation.

One point that has escaped comment in connexion with Mr. Bateman's Welsh scheme, and Messrs. Heman's and Hassard's lake scheme, is the danger that would arise from bringing such a large additional quantity of water as 250,000,000 gallons a day into the Thames basin from an extraneous source. In times of flood and of high tides the consequence might be most disastrous, as the damming back of that quantity of water into London would increase the dimensions of the flood.

Lastly, in a sanitary point of view, we look upon it that Mr. Lucas's scheme is based on incontrovertible fact and common sense. London wants more water than the upper Thames could supply, even if it were pure, and this plan utilises the rainfall on the hills within sight of London, which is almost entirely wasted. It must be added that if this mode of water-supply were adopted, a stop must be put to the practice of draining farms, houses, and churchyards in the chalk and lower greensand by *dry or dead wells* (*puits d'absorption*), which permit that foul water to soak into the earth, instead of being used as a fertiliser on the surface.

## THE WEEK.

### TOPICS OF THE DAY.

A FINE of ten guineas, especially after having been previously warned, is hardly likely to induce the delinquent paper-mill owner at Ecclesfield, near Sheffield, to abolish a nuisance which was the subject of complaint before the magistrate—namely, that the refuse (described as poisonous) from the mill flowed into and polluted the stream which runs beside the mill. The case was a serious one. Eighteen deaths from fever had taken place amongst the workpeople who occupy dwellings alongside the stream, and there were many other cases of fever. As a rule, we believe mill-owners in these manufacturing districts are actuated by a praiseworthy public spirit. Instances where this is the exception—when the health and well-being of those in their employ are so seriously affected—must not be permitted to pass by without remonstrance. Under the circumstances of this case, a fine of the amount imposed is not a punishment adequate to the gravity of the offence; and should ulterior measures by the sanitary authority yet be necessary, the case will, we hope, be adjudicated upon with a due regard to the failure of a previous lenient conviction, and, as may appear, the subsequent obstinacy manifested to abate a dangerous nuisance. We believe that the Acts at present in force, if properly carried out, are sufficient to meet the necessities of even the worst cases.

It will soon be determined what influence Dr. Gardiner's scheme, only partially carried out, has had on the health and mortality of Glasgow. Mr. Cross, the Home Secretary, visited Glasgow last week, accompanied by Lord Henry Lennox, M.P., the First Commissioner of Works, to inspect the alterations and determine the important question at issue.

The Sanitary Inspector of St. Luke's has directed the attention of the vestry to his having often, and especially recently, found articles of clothing and wearing apparel being made up for wholesale City firms in rooms where persons were suffering from fever and other contagious diseases. The parish of St. Luke's abounds with poor dressmakers, who occupy rooms in a very wretched condition. The disinfection of these contaminated articles of clothing is, when discovered, very properly insisted upon, notwithstanding the strong protestations of the poor workwomen; but the mischief dreaded is already, in many cases, most likely done, and so disease is spread far and wide throughout the metropolis. Inspection in such districts as St. Luke's should be more frequent than is usual now. The area assigned to a sanitary inspector should be confined to such limits as would enable him to go over his district more strictly and more frequently than is at present possible. Those acquainted with the habits of the workpeople throughout the metropolis well know that the condition of St. Luke's is by no means an exceptional one. The crowded neighbourhoods of even the most wealthy parishes of London are subject to the same demoralising and unhealthy influences. Look, for instance, at the homes of the journeymen tailors and the sempstresses in the important parish of St. James's, Westminster. It is to be feared that the evil is one due to many and various causes, some of which are beyond the power of legislation successfully to deal with. Habits of intemperance and idleness are amongst the chief of these. What the progress of education will do in arresting to some extent these blots upon society remains to be shown. The School Board unquestionably have already done something in this direction, but it is almost impossible to conceive the difficulties the school inspectors have in carrying out their labours. These difficulties may appear to superficial observers to lie upon the surface; but this is a great mistake, as the constant reports at our police-courts amply and not satisfactorily prove.

At length the City of Lincoln Town Council would appear to have come to their senses with reference to the importance of carrying out sanitary measures for the prevention and cure of disease. After wasting an immense quantity of time in experiments on the best modes of sewerage, they have come to the conclusion that active and practical measures must be resorted to for the removal of filth, etc. The health of the city is by no means in a satisfactory condition, as the following report, read by the clerk, will show:—

"The clerk read the medical officer's report for the quarter ending September 30. During the period there were 310 births, 156 males and 154 females; while the deaths numbered 215, 113 males and 102 females. Nine died in the County Hospital, 4 in the workhouse, and 2 in the lunatic hospital. Of the 215 deaths, 109 were children under five years of age, of which 81 were under twelve months. Forty-one deaths were registered from diarrhœa and dysentery, of which 38 were children under five years of age and 34 were under twelve months. Of the 23 deaths from fever, 3 were from typhoid and 21 from scarlet fever, of which 12 were under five years of age, and 9 over five years of age. Since the commencement of the epidemic 140 deaths had been registered from scarlet fever. Estimating the population of the city at 30,000, the annual death-rate during the quarter was 28 per 1000."

The last fortnightly report of the Homerton Asylum states that during the fortnight 85 fever cases had been admitted, 39 discharged, and 17 had died, leaving under treatment 173, as against 144 in the previous fortnight. On the small-pox side 2 had been admitted, 2 discharged, and 3 were left under treatment. The greater part of the scarlet fever cases had come from Hackney, Holborn, St. George's-in-the-East, and Marylebone. The last Stockwell Asylum report

showed that during the fortnight 41 fever cases had been admitted, 38 discharged, and 15 had died, leaving 109 under treatment, as against 116 a fortnight since. On the small-pox side 3 cases had been received.

Dr. Barton Smith, House-Surgeon to the Dorset County Hospital, has had conferred upon him by his Imperial Majesty the Emperor of Germany, the war medal, for his services to the wounded during the Franco-Prussian war in 1870-71. Dr. Smith served under the auspices of the National English Society.

We have always contended that the importance of the inspection of seaworthy seamen is as great as that of seaworthy vessels, both in port and at sea. This may be proved by the condition of the vessels and their crews in the port of London; though now comparatively good, the port continues to need strict watching. Thus, during the month of September, 366 out of 2083 vessels in the river and docks needed a thorough cleansing, and ninety-three sick sailors were found afloat who were referred to the Seamen's Hospital at Greenwich. In nineteen cases the drinking-water, taken from ships for the purpose of analysis, was found to be unfit for human consumption. Three cases of scurvy had been admitted into port within four weeks. Such is the state of things at the present time, when considerable vigilance is exerted in the matter.

News comes from Berlin that the body of Lady Dilke, who died five weeks ago in London, was burnt on the 10th inst. at Dresden. The ceremony was performed in the furnace recently invented for burial purposes by Herr Siemens, and the relatives of the deceased lady permitting strangers to be present, a large number of scientific men attended the experiment. When the company had complied with Herr Siemens' request to offer up a mental prayer, the coffin was placed in the chamber of the furnace; six minutes later the coffin burst; five minutes more and the flesh began to melt away; ten minutes more and the skeleton was laid bare; another ten minutes and the bones began to crumble. Seventy-five minutes after the introduction of the coffin into the furnace all that remained of Lady Dilke and the coffin were 6 lbs. of dust, placed in an urn.

Mr. Edwin Peacock, surgeon, of Chilvers-common, Nuneaton, whose case was detailed in our columns some time ago, has been committed for trial at the ensuing Warwick Assizes on a charge of manslaughter. An application to be admitted to bail was granted, the defendant in the sum of £500, with two sureties to the amount of £250 each.

The scholarships and exhibitions at St. Mary's Hospital Medical School have been awarded as follows:—The Scholarship in Natural Science to Mr. W. Pearce; the Exhibition in Natural Science to Mr. F. A. Cox; the extra Scholarship in Natural Science to Mr. C. M. Handfield Jones; the Scholarship in Classics and Mathematics to Mr. H. W. Seager; the Exhibition in Classics and Mathematics to Mr. C. M. Handfield Jones. The examiners were Dr. Cobbold, F.R.S.; C. W. Heaton, Esq., Lecturer on Chemistry at the Charing-cross Hospital; and the Rev. Dr. West, Head Master of Epsom College.

The two Entrance Scholarships at the Charing-cross Hospital have been awarded to Messrs. Rowbotham and Hoole respectively.

The session 1874-75 of the Liverpool Medical Institution was commenced on Thursday evening, the 8th inst., by the delivery, in the small theatre of the Institution, of an inaugural address by the President, W. McCheane, F.R.C.S.

Dr. Fritsch, of Berlin, has been appointed Professor Extraordinary in the University.

### DR. RICHARDSON'S ADDRESS AT THE HUNTERIAN SOCIETY.

On the invitation of the President and Council, Dr. Richardson delivered the inaugural lecture of the present session of the Hunterian Society, on Wednesday night. The title of the lecture was "The Pathological Results of Pectous Changes in Colloidal Structures," and the subject matter related to a question that pervades the whole field of pathology. In opening his discourse, Dr. Richardson defined the terms pectous and colloid, describing with much care the various colloid structures of the body. Then he advanced a new and simple theory of the cause of pectous change, in which his own ammonia theory of coagulation was reconsidered and placed in a new light. He showed by experiment that the colloidal matter of the animal tissues exists in two states, the active or *aqueous*, and the dead or *pectous*. The aqueous condition, while it lasts, is always maintained by some agent which fixes or condenses matter in combination with the colloid. Such agent withdrawn, the particles of the colloid unite by the simple attraction of cohesion, and the pectous condition is realised. After touching on the colloidal function of organic matter, and of the modifications arising from its changes of form, Dr. Richardson passed to the pathological study, tracing out the connexions between pectous changes incident to systemic death, and connecting them, in line, with such local changes as clotting of the blood, cataractous conditions of the lens, thickening of membranes with arrested dialysis, exudation of colloidal matter into the tissues, and transudation of it from a supersaturated saline solution through membrane. In the end he traced the same order of change in nervous matter, and concluded a most able and interesting lecture with a short comment on the value of the knowledge obtained in relation to the treatment of disease. We should not be content with giving so brief and bald a note of this remarkable discourse now, were it not, happily, in our power to promise to give it to our readers in full next week.

### THE NAVAL MEDICAL SERVICE.

The opinions expressed in several of the introductory lectures which inaugurated the commencement of the present winter session at the London hospitals, should be sufficient to prove to the authorities at the Admiralty that the profession generally is averse to recommend the Naval Medical Service of the country, as it now stands, to the notice of those who, being duly qualified, are hesitating as to the particular branch in which they shall embark. We had hoped that before this a competent commission would have been empowered to consider the whole subject. It is universally admitted that the present system is so faulty in its details, and holds out such feeble inducements to young medical men, that of late years it has been found almost impossible to obtain a sufficient number of medical officers to meet the requirements of the service, whilst the professional status of those who have joined is not equal to that exhibited by candidates for the Army and East India Medical Departments.

A new Warrant with, if not increased pay, at least greater chance of promotion, and a higher relative rank in the service, is the only method of restoring the waned popularity of the Naval Medical Department. It should not be forgotten by those who have to legislate for this branch of the service, that the peculiarities of the duties require extra inducements to obtain efficient recruits. A medical officer posted to a man-of-war ordered off on a three-years' cruise is placed at a disadvantage with his brethren of the Army, or even of the East India Service, by the long period of isolation he is called upon to undergo. The opportunities of improving himself by intercourse with others of his profession, and of keeping himself *au courant* with the ever-advancing strides of science, are not equal; and even on these grounds alone we feel justified in calling the attention of those who will have to frame amended

regulations to the importance of increased liberality in the direction we have indicated, if the Naval Medical Service is to be rendered once more popular.

If, as is universally reported, the number of deaths and retirements which took place during the past year was greater than the number of new appointments, we may be certain that the Lords of the Admiralty will be compelled to lose no time in perfecting some fresh arrangement for obtaining medical officers, and the coming year might auspiciously open with a new and improved Warrant for the Naval Medical Service.

THE NEW SYSTEM OF STATION HOSPITALS FOR THE ARMY.

The institution of station hospitals at most of the large camps and garrisons in Great Britain, in succession to the old system of regimental hospitals, has now proceeded a long way towards completion. On the 1st of the present month three station hospitals were to be opened at Aldershot, where, up to the present time, the sick of each regiment have been separately treated by their own medical officers; and a new code of regulations has been issued to facilitate the working of the new system. From this we gather that station hospitals are to be available for the reception of sick from all corps in garrison, and such other soldiers, seamen, and marines as the officer commanding the station may authorise to be admitted therein; and that they are not to be used for the treatment of sick by corps or regiments, but for the treatment of sick soldiers generally. These hospitals will be subject to the supreme authority of the General or other officer in command of the troops, but the internal administration is to be under the control, superintendence, and supervision of the principal medical officer of the district. Moreover, each of these hospitals will be under the direct charge of a medical officer appointed by the Director-General, and not liable to removal without his sanction; he is to be styled the Senior Medical Officer, and to be held responsible for the detail of all medical duties, the custody of medicines, instruments, and hospital equipment, and the cooking and distribution of provisions.

The Senior Medical Officer is also to divide the duties of the hospital between himself and the medical officers serving under him; exercising a general supervision over all sick, and making such inquiries as to their condition, progress, and treatment as he may deem fit; consulting when required with the medical officers serving under him as to any particular case, and deciding with them as to the necessary treatment to be pursued. Each medical officer is, however, to be individually responsible for the treatment, dieting, and nursing of the patients under his care, all serious cases being reported to the Senior Medical Officer, to whom all matters of doubt and difficulty are to be referred. The Senior Medical Officer is to examine all men sent for admission, to diagnose their diseases, and allot them to wards, and no patient is to be discharged without his approval.

The remainder of the code of regulations is principally taken up with details appertaining to the military medical service. It would be useless to deny that many and grave objections are advanced against the new system by persons who are competent to express an opinion, but it must also be borne in mind that no change is ever carried out which is entirely palatable to those concerned. The institution of station hospitals will enable the authorities to concentrate the services of military medical officers; but whether the service will benefit to the extent anticipated, remains to be proved. Under the regimental system a medical officer would certainly appear to have had a better opportunity of making himself acquainted with the peculiarities of disease and general habits of the men of the corps to which he was specially attached, but then it must be remembered that medical officers were continually being removed through promotions, exchanges, etc. Further, it has been ascertained, we believe, that the plan of station hospitals in India (so far as they have been carried out) has answered satisfactorily, and there would therefore appear to be no reason why they should not work as well in this country; at any rate the system will have a thorough and fair trial, and, with the experience of the gentlemen at the head of the Medical Department, it is certain that no routine will be persisted in if the result eventually proves that the change is not for the good of the service.

THE PUBLIC HEALTH (IRELAND) ACT, 1874.

Sixty days having elapsed since the passing of this Act, the various sanitary authorities constituted under its provisions are at present busily engaged in organising their working staff and making appointments to the different offices mentioned in the Sanitary Orders recently issued by the Local Government Board for Ireland. The authorities, especially those in rural districts, seem to have a very hazy idea indeed of what is expected of them, and of the importance of the duties to be performed by their medical officers. In some instances a decided tendency to "kick against the pricks" is observable. For example, at a meeting of the Thurles Board of Guardians a few days ago, after considerable discussion as to the provisions of the Public Health (Ireland) Act, and with regard to the formation of a sanitary board, Colonel Knox, J.P., proposed, and Mr. Denis B. O'Brien, J.P., seconded, a resolution asking the Local Government Board to *withdraw the order requesting the guardians of the union to form a sanitary board*, they considering such board as not required, and that the appointment of sanitary officers would increase the taxes of the ratepayers of the district, which they (the guardians) were not disposed to do. The resolution was carried unanimously. Seeing that the Act is *compulsory*, it will be interesting to watch the fate of this resolution, and the result of such an attempt to ride a coach-and-four through an Act of Parliament. Other boards have contented themselves with grumbling a good deal, and fixing the salaries of their *medical* officers at a ridiculously low figure, £10 per annum being about the average amount, while the sub-sanitary officers—*i.e.*, the inspectors of nuisances—are to get double or treble the sum. Fortunately for the profession, the Local Government Board for Ireland has the *approval* of the salaries allotted under the Act left to its discretion. We may therefore yet see justice done. The plea that large salaries are a burden on the ratepayers is on all sides advanced, and with much apparent plausibility. But if sanitation is not utterly useless we should look forward to a diminished rate of disease and death, which would in turn react favourably on the prevalence of pauperism, and so lead to a lower poor-rate. Sanitary boards are too seldom either trustful or philosophical enough to consider the probable good results of a conscientious, painstaking, and intelligent administration of the laws relating to public health which have been entrusted to them. This has been well put at a meeting of the County Tipperary Medical Protective Association, recently held at the Limerick Junction, when the following resolution was passed:—

"That at this, our first meeting since the passing of the Bill, we feel pleased at expressing our strong feeling of satisfaction at the Public Health (Ireland) Act having become law; and from our knowledge of the want of such legislation, and from the arduous duties which we will have to perform, we beg to urge on our respective boards the absolute necessity of giving adequate remuneration for these services; and we beg to express our conviction that, so far from being a large increase on the rates, if properly worked, it will ultimately be the means of reducing them in many ways, especially by preventing the recurrence of outbreaks of disease, and thereby lessening both indoor and outdoor relief."

REFRIGERATING VANS *v.* LONDON SLAUGHTER-HOUSES.

An experiment has recently been tried on the Great Western Railway, which is of more importance to the sanitary condition

of the metropolis than at first sight appears. We allude to the refrigerating van for the transmission of dead meat, invented by Captain Acklom. By an ingenious arrangement of the already recognised assistant to refrigeration—felt,—such a low temperature is secured in travelling, that the inventor undertakes with confidence to supply provisions sound and sweet to the London salesmen in the height of summer, after two days' journeying in one of his vans.

Should this invention succeed—of which there would seem to be but little doubt,—a revolution may be expected to take place in the method of supplying the London markets with meat. At the present time the country graziers venture too much in killing on the spot and forwarding carcases to the dead-meat market; but with Captain Acklom's assistance they will be enabled to save the expense of sending cattle, etc., up to town, thereby incurring risk and loss of flesh, at the same time that they will increase their profits by the hides and offal of the beasts they kill.

The sanitary advantage to be derived from this invention would be the abolition of many of the slaughter-houses at present existent in the metropolis, the use of which would not be required; and we are further confirmed in the belief that the refrigerating vans should be extensively employed, from the opinion lately expressed by Dr. Dudfield to the Kensington Vestry, that many of the slaughter-houses in that parish were structurally unfit for the purpose.

Dr. Dudfield, who so much exerted himself when the Slaughter-houses Act was first brought before Parliament in the June of this year, has advised the Kensington Vestry, under the powers which they possess, to adopt the following regulations for all slaughter-houses in their district:—1. That it must have an independent entrance apart from any house or shop. 2. The building to be open to the roof, or to have no inhabited rooms over it. 3. It should be well ventilated and properly lighted, so that the slaughtering may be done, as it always should be, with closed doors. 4. It should have walls and flooring of smooth and impervious materials. 5. It should be well drained with stoneware glazed pipes, and the drains permanently trapped. 6. It should have attached to it ample and separate lairage, conducted with a due regard to sanitary and other requirements. 7. It should be effectually separated from any lair, stable, dung-pit, etc., so that the meat may not be exposed to any offensive effluvia. 8. It should be of adequate size, and should not be used for any other purpose than that for which it is licensed; particularly it should not be used as a stable, lair, or cart-shed.

If Captain Acklom's invention should eventually prove the means of closing the bulk of the London slaughter-houses, that gentleman will have been a greater benefactor to mankind than perhaps he himself ever anticipated.

### SCARLET FEVER IN MANCHESTER.

Dr. Leigh, Medical Officer of Health for Manchester, has laid an important statement with reference to scarlet fever before the Board of Guardians. He states that 90 to 95 per cent. of the cases of scarlet fever occur in children under nine years of age. Last year about 10,000 cases of the disease occurred in Manchester, and only sixteen patients were received at Monsail Hospital and eighteen at the Pendleton Children's Hospital. If this state of things is not stopped, Dr. Leigh fails to see how scarlet fever is to be "stamped out." He believes isolation as far as possible indispensable. It has answered in the case of small-pox, typhoid and typhus fevers, and would prove equally useful in scarlet fever. He proposes, therefore, that local hospitals for scarlet fever should be provided in several parts of the city. The Corporation, seeing the necessity and advantages of such institutions, has offered to take the entire management of them.

### ST. THOMAS'S HOSPITAL PHYSICAL SOCIETY.

On Thursday evening, October 8, the first meeting of the Society for the session was held, and an introductory address by the President (Mr. W. W. Wagstaffe) was delivered. Commencing with a short reference to the history of the Society, he proceeded to discuss its objects, which were threefold—1. The reading and discussion of papers upon medicine, surgery, and collateral subjects; 2, the exhibition of pathological specimens and narration of clinical cases of interest; and 3, debating upon specified subjects relating to medicine and surgery. Then, taking three classes of members—the workers, the talkers, and the listeners,—he addressed to each in turn some suggestions. To the workers, he instanced Priestley as having begun as an amateur what he brought to perfection in later years, and advised their selecting a limited subject for their papers. To the talkers, who were the backbone of the Society, he pointed out the value of public speaking; he showed the necessity of talking to find out their own thoughts, and quoted from Wendell Holmes, where he refers to the influence of time upon thoughts and beliefs, and then pointed out that many a stray thought "blown out into space is not lost." Slop philosophy and slop in everything was condemned, but the necessity of discussing popular fallacies was insisted on. To the listeners, he urged their constant attendance and support, and trusted they would be incited to become talkers and workers in the Society. After thanking the various officers for their assistance, he referred to the work done by the Society during the past session, in which twenty-one meetings had been held, including seventeen at which papers had been read and discussed, three pathological and clinical evenings, and one microscopical *soirée*. A discussion followed, in which Messrs. Gill, Longstaff, Rossiter, Jacob, and others took part.

### DISEASE AND ITS PREVENTION IN WANDSWORTH.

The death-rate for 1873 of the entire district of Wandsworth, according to the united report of the medical officers of health, was 18·7 per 1000, or 1 in every 53 of the inhabitants. The death-rate of the whole of London was for the same year 22·5. Amongst the principal epidemic diseases which have been lessened and controlled in the Wandsworth district during the past year is small-pox, which has been visibly checked by the agency of effective hygienic measures, and notably by the energetic and systematic employment of vaccination and revaccination. From 1863 to 1871 the fatal cases of small-pox in the district were very numerous, and it is found that in the latter of the two years above named (1871) the maximum point was reached by the return of no fewer than 377 deaths from this disease. In the ten years 1863-72 the mortality from small-pox amounted in the aggregate to 600, giving a yearly average of sixty. As the deaths from this disease in the past year were only nine, they were less by fifty-one than that average. It is matter for congratulation that a better condition of things is now promised by the almost entire "stamping out" of the malady. We must draw attention to the fact that as many as seventy persons died in the district, and were, it appears, buried without the causes of death being duly attested by medical certificates. The system of burying those who have died suddenly, or without previous medical attendance, before the true cause of death has been ascertained or certified to by duly qualified medical practitioners, or, failing which, by coroners' inquisitions, fully justifies the deprecatory remarks and the strong opinions that have been expressed from time to time upon this important subject.

### A NEW APPARATUS FOR EXTENSOR PARALYSIS.

At the February meeting of the New York Society of Neurology and Electrology, Dr. John Van Bibber presented a case of lead paralysis treated by an apparatus designed not

only to correct the deformity, but also to act as a means of more rapid and complete cure (*New York Medical Journal*, May, 1874). Dr. Bibber considers that it is but reasonable to suppose that the element of position of a muscle is highly important, and that paralysed muscles, forced by their antagonists into abnormal positions, are not in a favourable state to promote recovery. In the case referred to, the extensor group of muscles was placed in a more natural position by mechanical means, and the muscular fibres relieved from the constantly stretched condition by means of Sayre's indiarubber muscle. This, which consisted of a piece of indiarubber tubing, was so arranged upon the limb that it might be said to arise from a point a little above the external condyle of the humerus, pass downward on the extensor surface of the forearm, under an artificial annular ligament, forward over the dorsum of the hand, between the index and second fingers, and then across the palm, and to be inserted at a point about the articulation of the fifth metacarpal bone with its first phalanx. By this means Dr. Bibber believes that he secured an artificial muscle easy of application and efficient in action, and, above all, that could be applied without exerting undue pressure at any point. The case in point, as far as treated by this method, has proved that it is a valuable addition to the treatment previously recommended.

### POOR-LAW MEDICAL OFFICERS' ASSOCIATION AND THE LATE DR. ANSTIE.

A special meeting of the Council of the Poor-law Medical Officers' Association was held on the 8th inst., for the purpose of expressing the great regret felt by the Association at the death of their able and distinguished honorary member, the late Dr. Anstie. Dr. Rogers gave an interesting account of Dr. Anstie's labours in connexion with workhouse reform, and of the willingness with which he had himself placed his own knowledge and experience of workhouse needs at Dr. Anstie's disposal; and he also spoke in warm and grateful terms of the way in which Dr. Anstie had supported and defended him in his difficulties with poor-law guardians; and of the valuable advice and assistance Dr. Anstie had given to the Association throughout its existence. The Council then unanimously passed a resolution, of which the following is the principal part:—

"That this Council desires to give the most earnest expression to its deep sense of the loss which the profession in general, and poor-law medical officers in particular, have sustained in the untimely death of Dr. Anstie. The Association is deeply sensible of the valuable services which Dr. Anstie rendered in the field of poor-law reform by his lucid and impressive exposure of the anomalies and deficiencies which up to the period of the introduction of the Metropolitan Poor Act, 1867, prevailed in our workhouses and in our general medical relief system; an Act which, whilst providing for the efficient treatment of the indigent sick poor, materially conduced to an improvement of the condition and status of many medical men holding poor-law appointments under the Local Government Board in the metropolis, and the principles of which have likewise had so large a share in bringing about many beneficial changes in the provinces."

### HOSPITAL SUNDAY IN DUBLIN.

At a meeting of the Hospital Sunday Council, held at the Shelbourne Hotel, Dublin, on Wednesday week, Viscount Monck in the chair, Dr. Grimshaw, one of the honorary secretaries, stated that circulars had been sent out to churches of all denominations, inviting them to join in the arrangements for a Hospital Sunday collection on or about November 15 next. The Archbishop of Dublin had sanctioned the sending of the circular amongst the clergy of the dioceses of Dublin, Glendalough, and Kildare. The result up to that time was that replies promising to join in the movement had come from 108 churches, including Church of Ireland, Presbyterian, Episcopal Church of the United Brethren, Primitive Methodists, Wesleyan Methodists, Friends, Unitarian, Baptist, Independent, and Jewish. There had been twenty-five refusals, and sixty-eight churches had not replied to the circular. Since Dr. Grimshaw's statement was made, twelve additional churches have joined the movement, so that 120 churches in all have now promised to have a Hospital Sunday.

### SINGULAR ACCIDENT AT THE HERBERT HOSPITAL, WOOLWICH.

Rather an extraordinary occurrence is reported from Woolwich. Sergeant George Platt of the Army Service Corps, aged forty-two, was being treated in the Herbert Hospital at Woolwich for erysipelas in the face; at half-past four o'clock on Saturday morning last he was found by an orderly lying insensible on the ground; outside and beneath the window of his ward, from which it is inferred that he must either have jumped or fallen, a depth of twenty feet. He was immediately conveyed back to the ward, and Surgeon Quinton was promptly in attendance, but he died at three o'clock the following morning from the effects of the injuries he had received. As nurses and warders are on duty in the wards of the Herbert Hospital night and day, it is not easy to understand how the accident happened, but at the inquiry which will take place before the coroner no doubt the circumstance will be fully explained.

### QUEEN'S UNIVERSITY IN IRELAND.

The annual meeting of Convocation of this University was held on Tuesday last, the 13th inst., in St. Patrick's Hall, Dublin Castle. The Rev. Dr. Henry, President, Queen's College, Belfast, occupied the chair. In the course of the meeting an animated discussion took place on a resolution proposed by Prof. Pye, of Galway College, to the effect "That, in the opinion of Convocation, candidates for the degree of Doctor of Medicine should be required to produce evidence of having, subsequently to matriculation, been engaged in professional study for at least five years." The proposition was ultimately withdrawn, when the same gentleman moved, in conformity with a notice of motion previously given, "That, in the opinion of Convocation, it is expedient that diplomas in State Medicine be granted by the University." Dr. Redfern called for a count out, and, a quorum not being present, the motion lapsed.

### WEST KENT MEDICO-CHIRURGICAL SOCIETY.

The first meeting of the nineteenth session of the West Kent Medico-Chirurgical Society was held on Friday, October 2, at the Royal Kent Dispensary, Greenwich-road, Frederick Moon, M.B., President in the chair. The following gentlemen were elected officers of the Society for the session 1874-75:—*President:* John Anderson, M.D. *Vice-Presidents:* J. P. Purvis, M.R.C.S.; F. Moon, M.B. *Council:* Hughes Cable, M.R.C.S.; William Carr, M.D., F.R.C.S.; Thos. Creed, M.D.; Ralph Gooding, B.A., M.D.; Wm. Lockhart, F.R.C.S.; Chas. Nind, M.R.C.S.; J. W. Walker, M.D. *Treasurer:* Prior Purvis, M.D. *Secretary:* Harry Knight Hitchcock, M.R.C.S. *Librarian:* J. B. Saundry, L.R.C.P., M.R.C.S. The newly elected President (Dr. Anderson) delivered a very able inaugural address. The next meeting will be held on Friday, November 6, at the Royal Kent Dispensary, Greenwich-road, at 8 p.m. precisely.

### THE DEVONSHIRE HOSPITAL, BUXTON.

The pressure on the capabilities of the Devonshire Hospital and Buxton Bath Charity appears to become greater and greater. Notwithstanding the increased number of beds from 100 to 150 the number of patients waiting for admission has been larger than ever, reaching during several weeks of the past summer nearly 300. The committee fully realise the suffering and inconvenience this state of things necessarily involves, and have directed their attention to the possibility of extending the Hospital.

PUTRID HAMS.

James Wall, a pork butcher, was last week fined £100 by the magistrates at Cardiff for having in his possession a large number of putrid hams. We are glad to observe that many of the provincial magistrates are inflicting fines which, we hope, will prove to be a deterrent to the vendors of putrid articles of food; though we consider, in flagrant cases, the sentence of imprisonment without the option of a fine should be inflicted.

ADVERTISING A CONVICTION FOR THE ADULTERATION OF MILK.

In a second conviction for selling adulterated milk, Mr. Vaughan, the magistrate at Bow-street, in addition to a fine, ordered the defendant to pay for the insertion of an advertisement in the public papers, stating the particulars of his conviction. This, we believe, is the first case of the kind in London. The publication of the offence will have a far more deterrent effect in the future than the infliction of any fine, however large.

HYPODERMIC INJECTION OF ERGOT IN POST-PARTUM HÆMORRHAGE.

Dr. P. C. Williams, of Baltimore, writing from personal experience, strongly recommends the hypodermic injection of ergot in post-partum hæmorrhage, which he describes as a safe, prompt, and efficient remedy. He uses the fluid extract of ergot, which is made by rubbing up the solid extract with water in the proportion of one grain to one minim. Of this, half a drachm may be injected at once.

CHAIR OF CHEMISTRY, TRINITY COLLEGE, DUBLIN.

Dr. James Apjohn, who has so long and ably filled this chair, has resigned that portion of his professorship which is connected with the School of Physic in Ireland. He will continue, as heretofore, to lecture on chemistry to the Arts and Engineering Classes of the University of Dublin.

ON A NEW METHOD OF OPERATING ON THE LARYNX.

The *Centralblatt für Chirurgie* for August 15 contains an interesting account of a new method of conducting operations on the larynx, introduced by Dr. A. Eysell, of Halle. Everyone, he says, who employs the laryngoscope must be aware how difficult it is to reach a tumour growing in the lower part of the larynx, which is not sufficiently movable to be driven above the level of the vocal cords by forced expiration. He has, however, succeeded in removing them in the following way:—Whilst observing the larynx by means of the laryngoscope, for which he employs either daylight or the electric light, an exceedingly elastic needle is passed through the skin and crico-thyroid membrane, into the larynx exactly in the middle line, and immediately beneath the thyroid cartilage. The needle is then made to transfix the tumour, and by depressing its handle the latter is forced up into the ventricle of the larynx. No hæmorrhage takes place, the only pain felt is during the transfixion of the skin, and no local mischief has followed even frequently-repeated operations. If it be intended to cauterise or tear away the tumour, the patient is directed to hold either the mirror, or better still the needle; and in this way Dr. Eysell has succeeded in removing two fibromas from the lower part of the laryngeal cavity since last November. Since that time he has endeavoured to operate on tumours, with the needle itself, which could not conveniently be attacked through the mouth, and for this purpose he employed the needle used by Schwartz for performing paracentesis of the tympanum; but even this ought to be gently heated before use, in order to make it more pliable. It was passed as before into the larynx, and several incisions or pricks made into the tumour, which was then lifted up and cauterised. In a case where the vocal cords were adherent to one another for their anterior two-thirds, as the result of a suicidal cut throat, which caused considerable shortness of breath on slight exertion, a narrow tenotome was passed through the scar, 0·5 centimetres broad, into the larynx. When the point appeared behind the triangular adhesion, the handle was firmly depressed, and by drawing the knife downwards the cords were separated almost to their origins. In the same way, no doubt, injections might be practised on laryngeal tumours, by the employment of a needle-pointed syringe. It may be impossible to perforate the thyroid cartilage in old people on account of calcification.

# NOTES ON FOREIGN HOSPITALS AND SCHOOLS OF MEDICINE.

## No. IV.—LEIPZIC.

(*Continued from page* 347).

### The Physiological Institute.

An account of the medical buildings and arrangements at Leipzic should properly have commenced with a description of the Physiological Institute of Professor Ludwig, as every visitor to them turns his first steps towards it. The question is not likely to be raised, however, which of the departments of the medical school at Leipzic has contributed most to its reputation; but there can be no doubt that the Physiological Institute is more widely known than its neighbours. Who, indeed, in our profession has not heard of the greatest physiological laboratory in the world, which was planned and completed under the superintendence of a man whom his fellow-physiologists will be the readiest to acknowledge as the greatest amongst them—Professor Carl Ludwig? We will not burden our paper with details which should be familiar to all, of what Ludwig has done to advance truth; we would rather tell, if space were at our disposal, of the kind, hearty gentleman, who might well be called the Sharpey of Germany. But this is not the place for such description; and we must turn from Ludwig to his great house and home. Physiology may with good title be called a profession, when its devotees have their residence, like Ludwig, over their laboratory. The Institute is of two storeys, and the upper one is occupied with the professor's apartments. The ground plan is E-shaped, the middle or short limb being the only exception to what has been said—a single-storeyed lecture-room. All the rest of the ground floor is arranged as laboratories, and the cellars beneath are fully occupied, as we shall presently find.

Of the three sides of the ground floor, that facing the street with a northern exposure is devoted to histology; that towards the south is fully occupied by a large practical chemical class-room; and the east side, uniting the two preceding, is retained by the professor and his assistants for experiments and the more elaborate researches. From this portion the professor has a direct communciation with the lecture-room before mentioned, while the students enter the same from the court.

The chief Histological Laboratory contains working places for twenty-three to twenty-five students, in two rows—one in front of the windows, and a second in the middle of the room. The students who desire to do so, may work here at the microscope six hours a week, distributing the hours as they choose over the various days. They are superintended by a special assistant of the professor—or professor-extraordinary,—at present Fleschig, lately Schwalbe, who was called to Jena, and before him the well-known and lamented Schweigger-Seidel, whose portrait hangs on the wall. The arrangement of this room is, of course, very complete, though simple like all good histology-rooms. Abundance of material for examination is stored and ready to hand, and a small room for preparing specimens is next door. Another and smaller histological laboratory is intended for senior students who have worked before at the subject. Besides working tables, there are certain necessaries here, such as injecting apparatus, etc.

The Physiological Chemical Laboratory contains working places for at least twenty students, who are chiefly accommodated at five large tables. Those of our readers who are specially interested in practical chemistry must be familiar with the table so extensively used abroad in practical chemical class-rooms—the double table, with central racks and shelves of reagents, the gas- and water-pipes at the sides, and the

handy waste or sink below the latter. These are in full use at Leipzic. At intervals in the walls of the room are gas chambers, and there is a very useful steam chamber, into which steam may be admitted by cocks from the vaults beneath. This department is under the direction of Professor-Extraordinary Hofmann.

But it is in the part of the building which we have described as occupied by the professor and his assistants that the stranger becomes most impressed with the magnitude of the arrangements for physiological research at Leipsig. Here there is a suite of seven rooms. The first of these is the professor's private room, and in it the apparatus for demonstration and lecture are kept. The second and third rooms are arranged for experiments on animals, and are furnished in the most approved style, the apparatus for injecting (which our space will not permit us to describe) being especially noteworthy. The fourth room is chiefly for weighing, and is furnished with balances. The fifth may be called the room for gas analysis. Here one finds the mercurial pump which Ludwig has improved. The sixth room is reserved for delicate physical and electrical work; it is well stocked with apparatus. The seventh or south-east corner room belongs rather to the chemical department, with which it is in communication; it contains the delicate balances. Such is the general arrangement of this portion of the laboratory; and it will be gathered from the description that it is very extensive. The impression made upon an English visitor by the inspection of this laboratory is further increased by the sight of shafts, and wheels, and belts about the ceiling and walls, and in potential connexion with the larger apparatus in the rooms—for example, with an ingenious apparatus for artificial respiration in large animals. The centre and source of the moving power of this machinery we shall presently discover on the underground floor in the form of a gas-engine.

We have already indicated the position of the auditorium or lecture-room in the general plan. It is across the corridor from the set of rooms last described. This is a fine lecture-room, well lighted, and furnished with seats for a hundred students. Here, as in some other German auditoria, we observed a railway for the lecture-table to run on. Shafts in connexion with the engine enter this room also for use in the practical demonstrations.

This completes our rapid survey of the principal floor of the laboratory. We shall now explore the cellars. Underneath the chemical laboratory is a second one, devoted to coarser analysis,—distilling, for example, is carried on here. In a neighbouring chamber is a steam boiler for supplying the whole building. Underneath the middle portion of the laboratory are the machine-room and *Diener's* room. The former contains the engine, which we have just mentioned, and which is the centre of the moving power so extensively employed throughout the laboratories above. It is not a steam-engine, but a gas-machine, of rather more than one-horse power, worked by explosions of a mixture of gas and air. The engine is said to be easily regulated, and costs little more than a penny an hour when at work: the most serious objection to its use is its noise. The room of the *Diener*, or skilled servant of the laboratory, may be described as a carpenter's shop. These skilled servants of German laboratories are the right-hand men of the professors—as a rule skilled mechanics, who are able to plan the details of apparatus for elaborate experiments, and to manage their construction.

Much of the remaining space in the cellars is occupied by dogs and frogs. The dog-kennels are under the lecture-room, and of the same size. On one side of a central space is the dogs' summer residence, an arrangement of iron cages, such as may be seen in dog-hospitals; and on the other are their winter quarters—a large room warmed by means of a stove. The frogs have also abundance of room underneath the histological laboratories, and next door to an ice cellar. The batrachians are kept in small boxes with perforated tops for watering; for if congregated in a single large box in winter, they would kill each other by their very weight.

Here we complete the description of the laboratory proper. Let us now notice, in a few words, the room for operations on large animals in a separate building on the south side. In a large square room, lighted from the roof, stands a movable table with a folding end. A system of pulleys hangs from the rafters, and by means of these one person can arrange a horse or a cow for experiment—to obtain a large quantity of any secretion, for example. A covering is buckled to the animal, and the straps connected with the pulleys; at the same time anklets are put on the fetlocks. The animal is now lifted off its feet, the anklets are locked together; a chain is slipped through their point of junction, and then through a hole in the table; and a firm pull at this brings the animal quietly on its side on the table. The *Diener* says he can easily tie down a cow single-handed. Beside this room is a large rabbit-house, and also an aviary. The frog-pond is also in the neighbourhood.

Physiology is taught at Leipzic by systematic lectures, demonstrations, and practical instruction. Professor Ludwig lectures five times a week on the senses and the organs of motion, and superintends the investigations of more advanced experimenters in the laboratory privately. Professor Merkel lectures twice a week on speech. Dr. Kronecker lectures on the circulation, and gives practical instruction in the methods of physiological research; while Dr. Fleschig, as we have already said, has a course of practical histology—daily in summer, and three times a week in winter. The course of physio-pathological chemistry is conducted by Dr. Hofmann three times a week for two hours.

## NOTHNAGEL ON UNILATERAL CONTRACTION OF THE LUNG.

In one of the recent numbers of the excellent series of "Clinical Lectures" edited by Volkmann, the diagnosis and etiology of diffuse unilateral pulmonary contraction are very clearly set forth by Dr. Nothnagel. It matters not what the pathological history of the contraction may be, for the processes which may terminate in diminished volume and retraction of the lung are numerous and very various. The following remarks apply to all cases with the single exception of senile atrophy. It is to be noted also that the condition under consideration is a diffuse, and not a local one.

The most important information in the examination of such a case is derived from inspection and palpation. We observe that the whole of the affected side appears smaller than its fellow—it is flatter, narrower, and shorter; the shoulder is low, and the scapular angle projects; the spine may be curved or not; the intercostal spaces are narrowed. Above all, the affected side of the chest does not expand in inspiration. The position of the apex-beat of the heart is also an important sign; it is never normal in such cases. If the disease affects the left side of the chest, the apex-beat is dislocated almost always upwards, and generally more or less to the left. If it be on the right side, then the apex-beat is most probably imperceptible, being covered by the hypertrophied left lung, or pulsation may even be found to the right of the sternum. Equally or even more valuable as a diagnostic point is another pulsation, which is to be seen and felt upon the thoracic wall apart from the apex-beat. In contracting disease of the left lung there is discovered in the second left intercostal space, and as far as from four to eight centimetres from the sternal border, a visible and palpable elevation in systole, and in diastole a palpable stroke. This very important phenomenon of pulsation in the second left intercostal space at the above-mentioned distance from the sternal border is referable to the pulmonary artery beneath. It is no uncommon thing to find pulsation in this region—for example, in mitral disease; but in such cases the sign is observed near the sternum. Nothnagel points out that before the pulsation, as above described, can be produced, three conditions must be fulfilled, as follows:—A displacement of the heart to the left; an increase of the pressure in the pulmonary artery; and a condensation of the lung tissue covering the pulmonary artery, or a disappearance of the same in such a way that the surface of the heart is exposed. The first of these conditions is absolutely necessary; the second is recognised by exaggeration of the second sound over the pulmonary artery. But these two conditions separately, or even in combination, do not prove the presence of left lung contraction. The third is necessary; and while it is the result of the change on the lung which we are discussing, it is precisely in that disease that it will be combined with the other conditions. Of the effect of contraction of the right lung, Nothnagel cannot speak with so much certainty.

The percussion-signs of unilateral lung-contraction are more familiar than those previously described. In a few words, the

important percussion-signs are two: first, the sign of elevation of the diaphragm on the contracted side (easily discovered on the left side—less easily on the right); and, secondly, the presence of a strip of chest, along the sternal border of the *affected* side, yielding loud, deep resonance from the encroachment of the opposite lung, which is in a condition of compensatory enlargement. The percussion over the diseased lung, the auscultatory phenomena, the fremitus, and the characters of the sputum are of no special value in the diagnosis of the condition before us.

Next, in regard to the etiology of contracting disease of one lung,—the anatomical appearance is, in the first place, that described as cirrhosis, interstitial pneumonia, pulmonary induration, etc.; and to this may be added various phthisical conditions. It is almost unnecessary to add that pleural adhesion is not only present, but probably never absent. In fact, there can be no doubt that pleurisy is by far the most common cause of unilateral pulmonary contraction. At the same time, it should not be forgotten that the process may begin in the lung—as pneumonia, abscess, gangrene,—or as the more complex process which is expressed by the term phthisis. But even then the pleura is, as a rule, involved either from the first, or by extension at a later period.

## FROM ABROAD.

### Intravenous Injection of Chloral.

Notwithstanding the strong disapprobation expressed at the Paris Academy of Medicine and Society of Surgery of the practice of inducing anæsthesia by the intravenous injection of chloral, as pursued by Prof. Oré, of Bordeaux (*Medical Times and Gazette*, July 4, p. 20), it is still continued both in that city and in Ghent. According to a communication made to the Belgian Academy of Medicine by Professors Deneffe and Van Wetter, of the Ghent University, the injection has now been made in eleven instances, and always with success. The duration of the procedure has varied from six to thirteen minutes, in two of the cases only having exceeded ten minutes. The quantity of chloral injected has varied from one and a half grammes to twelve grammes (water three parts, chloral one part), the state of absolute anæsthesia having lasted from twelve to thirty-two minutes. In one case it lasted three hours, but in that twelve grammes had been injected. In another case, when nine grammes were injected, it lasted an hour. After the completion of the operations the patients slept for hours, or even for a whole day, with only interruptions from time to time, lasting for some minutes. In none of these cases did any ill effect arise, while the patients were free from vomiting, even although they might have recently eaten; and insensibility is produced without the occurrence of the stage of excitement which always precedes this in the ordinary mode of employing anæsthetics. These advantages, conjoined to the rapidity and certainty of the action of the chloral when injected into the veins in doses which can be exactly determined, lead MM. Oré, Deneffe, and Van Wetter to regard this method as very superior to the induction of anæsthesia by inhalation.

Full particulars are given of Prof. Deneffe and Van Wetter's last case in the *Presse Médicale Belge* for October 4. In this the anæsthesia was induced for the removal of cancerous disease of the rectum, the patient being in a very dilapidated condition. Profound anæsthesia continued during two hours (seven grammes and a half of chloral having been employed); and two days elapsed before the patient had entirely passed out of the state of subsequent somnolence. No accident whatever occurred.

### Nervous Accidents of Albuminuria.

Under this title Dr. Weir Mitchell contributes an interesting paper to the *Philadelphia Medical Times* for August 1. He believes that the influence of the chronic and milder forms of albuminuria in inducing disorders of the nerve-centres is not sufficiently appreciated; and he finds on looking over his note-book an unexpected number of cases in which a steady but limited loss of albumen seems to afford the best explanation of various obscure nervous affections, which have often remained for long periods without any such connexion being suspected.

"Many cases of nerve lesion in albuminuria are due to the co-existent heart disease or to extensive and gross lesions due to thrombosis or arterial-wall changes; but a more common, more interesting, and less noticed group is such as would possibly yield to the eye or the lens no more obvious central tissue-change than we have from mere functional acts. I am disposed to consider albuminuria in its various forms as ranking, therefore, among the constitutional conditions which give rise to neural disease. Like syphilis, this peculiar manifestation of its lowering and disturbing tendencies is rare, and is, indeed, more uncommon than in the case of specific infection."

As exemplifying these remarks, Dr. Mitchell relates several cases of these nervous derangements. Thus he has met many instances of *headache* which were owing to diseased kidney, the pain being usually general and more or less constant, and accompanied by a sense of fulness and throbbing. In these careful examination could detect no cause for the abiding headache until an albuminous state of the urine was found to exist. One occurred in a boy ten years old three weeks after scarlatina, the headache coming on suddenly, and having lasted a week before its dependence on albuminuria was detected. "I may add that it was one of a number of cases of scarlatinal albuminuria out of which was developed epilepsies beginning with attacks of *petit mal*." Dr. Mitchell has also notes of two cases of *hemiplegia* in which albuminuric patients were subject to numerous attacks of slight hemiplegia, never very severe or very lasting. Both were men who had been full livers, and too much addicted to alcohol. *Local palsies* are another form of the affection in question, and in two of the cases given the muscles concerned in writing were those affected. In other instances, affections that had been regarded as hysterical were found to be traceable to renal disease. In two cases which were supposed to be pure examples of overwork by lads at college, albuminuria was found to exist. Dr. Mitchell believes that it is not very rare for sudden and complete cases of renal congestion to result in attacks of acute mania.

### Ligatures.

In an inaugural essay for which the prize was adjudged in the University of Pennsylvania, and since published in the *Philadelphia Medical Times* (May 23 and June 20), Dr. Haynes passes the whole subject of ligatures under review, with the object of determining the best material for their composition. From his inquiry into the state of recent opinions upon the subject, and from the experiments which he has himself instituted, it results that silk, in his opinion, still retains its pre-eminence, and ought to be employed in preference to all other substances. *Catgut* prepared by soaking in water has been abandoned by general consent, but *carbolised catgut* has been put forward as possessing advantages which Dr. Haynes denies that it possesses. The cases that have been recorded in which it has been employed prove that, although this ligature may have the advantage of melting away in the wound, it may do so too rapidly, and thus lead to fatal results. It cannot be safe to entrust a patient's life to a ligature that may become completely softened in less than eight days. Death from secondary hæmorrhage took place in two of the eighteen cases that have been recorded; while Porta states that, out of 600 cases tied in the ordinary manner, only one-twentieth died from this cause. Carbolic acid seems to render catgut more irritating to the tissues; for in the majority of the experiments in which it was inserted under the skin or used for sutures there was suppuration. This is in marked contrast with silk. The results of practical experience in the use of *silver* ligatures have proved so unsatisfactory in operations on arteries, that it will probably be rarely employed in future. Three out of eleven cases so treated died of secondary hæmorrhage; and in the author's experiments on the lower animals it generally divided the vessel. *Silk* has been accused by Simpson of delaying union, and rendering pyæmia more frequent. These assertions, however, are generally denied by practical surgeons; and Porta's experiments, which are confirmed by those of the essayist, prove that in the lower animals silk is generally unirritating. Secondary hæmorrhage is less common in operations on arteries in their continuity where silk is used than where the other materials are employed; and in other operations it is quite uncommon. "From a consideration of the preceding facts, it is believed that silk is the safest, and therefore the best material yet discovered for the ligature of arteries."

### Popliteal Aneurism in the Aged.

In a recent communication to the Paris Société de Chirurgie (*Gaz. des Hôp.*, October 3), M. Demarquay called attention to the treatment of popliteal aneurism when it occurs in aged persons. However treated, according to his experience hitherto, it has usually terminated fatally. Before venturing to apply a ligature in a case we should make ourselves acquainted with the age of the arteries, which are sometimes much older than is the individual himself; and it is highly important to be cognisant of the state of the collateral circulation. It is not sufficient to be able to arrest all pulsation in the aneurism by compression of the artery, but this should be continued a sufficient time to enable us to judge of the physiological condition of the compressed limb—that is, whether the circulation continues, as shown by the absence of all pain and by the natural colour and temperature of the limb being maintained. Even in the adult, in whom the arteries retain their suppleness and dilatability, the elements of a collateral circulation are limited, while in the aged the smallest arteries may be atheromatous. A ligature applied in this condition of things menaces the patient with two things—gangrene of the limb, accompanied by intolerable suffering and secondary hæmorrhage, which, whatever may be done for it, will recur again and again until death closes the scene. Is forcible flexion of the limb to be had recourse to in such a case? This is a severe mode of compression, acting directly on the aneurism. If this be large, and the coagulum within it not yet organised, such compression expels the blood from the aneurism and prevents circulation in its anterior, while the forcible pressure of the leg on the thigh suspends the collateral circulation. The pain caused is also so great that many cannot bear it. If the stratification of the aneurism has commenced, and especially if its walls are enfeebled at any point, we may by this compression, the power of which we are not aware of, cause a rupture of the aneurism and an infiltration of the limb, which may compel so dangerous an operation in the aged as amputation of the thigh. While, therefore, he acknowledges the value of this mode of compression in the treatment of young persons suffering from not very large aneurisms, M. Demarquay sets his face against its application to aged persons. He has seen the attempt fail in the hands of Velpeau, Lenair, and Verneuil, and in all three of these cases the patients died after the injection of the perchloride of iron had also been tried. With respect to the perchloride of iron, he has had much experience, and has made a very successful use of it in injecting well-circumscribed erectile tumours. He has employed it, also, in small aneurisms—as of the hand, for example,—when the isolation of the injected part is easy and the collateral circulation powerful. In such cases the perchloride coagulates the blood when in small quantity, and it irritates and inflames the capillary vessels with which it comes in contact, and especially the internal surface of the vessel by which it has penetrated. If too much perchloride be not used, everything goes on well, and the patient is cured. When, however, this is injected into a popliteal sac it forms a chemical combination with the blood in the shape of a black magma, destitute of cohesion, and which may be carried into the circulation at the risk of forming emboli. In the aneurism itself fatal inflammation may be also induced. A mode of treating these aneurisms that may be followed safely is digital compression, when this is easily borne, and does not cause severe pains in the limbs, proving that the collateral circulation exists. When much pain is caused it should be suspended, and if this becomes intolerable it must be renounced. In such cases all that we can do is to condemn the patient to rest, and support the aneurism by a supple and elastic apparatus. The patient is not cured, but he is not condemned to a violent death, and may live a long time. When, however, the aneurism has so increased in size as to threaten to burst, the alternative of amputation or ligature may have to be chosen. In the meantime, the collateral circulation has become more developed, and M. Demarquay would then open the sac, and tie the artery above and below, according to the ancient method.

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Transfusion of Blood in the Insane.—In the *Gazetta Medica Italiana-Lombardia* for September 19, Dr. Schivardi gives an account of several cases of insanity attended with debility and exhausting diarrhœa, in which the transfusion of lamb's blood was tried. Eight transfusions were performed on five individuals, one of these becoming, it is stated, cured, and the others ameliorated.

## REVIEWS.

*Lectures on Bright's Disease, with especial reference to Pathology, Diagnosis, and Treatment.* By George Johnson, M.D., F.R.C.P., Professor of Medicine in King's College, and Physician to King's College Hospital. London: Smith, Elder, and Co. Pp. 152.

We remember on an occasion, when at one of our public meetings, during a discussion on albuminuria, Dr. Johnson was taxed with being prejudiced; his reply was, that when a man had worked at a subject for five-and-twenty years, it might be allowed to him to entertain somewhat definite opinions. The reply was just, and, were it only on the grounds therein alleged—viz., of five-and-twenty years' honest labour in the field of renal pathology,—whatever comes from Dr. George Johnson's pen is well worthy of our attention. In many respects, Dr. Johnson may be taken as the leader of the British school in matters relating to diseases of the kidney, as opposed to the views of German pathologists. Thus he holds with Beale that there is no such thing as interstitial connective-tissue between the tubules; consequently, as a matter of course, that there is no such thing as interstitial nephritis in the sense of this being the cause of the small granular kidney, but rather that this form of renal mischief is due to the destruction of the renal epithelium—thickening and shrinking of the tubules, and thickening of the blood-vessels. Dr. George Johnson will, we think, receive the unanimous support of all English pathologists in his contention that the small granular kidney has never gone through a stage of previous enlargement; and most will also hold with him in the view that there is usually in this form of mischief a distinct thickening of the walls of the vessels, sometimes assuming the characters of a muscular hypertrophy. It is very important not to confound this kind of vascular change with that found in the waxy kidney, the characters of the two being totally different.

The forms of Bright's disease recognised and described by Dr. George Johnson are these—acute Bright's disease, chronic Bright's disease with a small red granular kidney, chronic Bright's disease with a large white kidney, and chronic Bright's disease with a lardaceous or waxy kidney; finally, he deals with albuminuria not associated with what is commonly understood as Bright's disease. All of these varieties are now generally accepted; but, when dealing with the subject from a clinical point of view, we should have been glad to have had Dr. Johnson's views with regard to some of the mixed forms of renal change we sometimes encounter—views to which he is so well able to give expression, and which would assuredly be received with respect.

In dealing with acute Bright's disease, allusion is made to certain curious bodies which often form casts themselves, and perhaps still more frequently are found mixed up with epithelial casts. These little bodies have all the peculiarities of leucocytes; but their origin is doubtful. Dr. Johnson used to call them pus casts; now he calls them exudation-cell casts. The term "exudation cell" is not a very happy one; but the suggestion that they are wandered white blood-corpuscles is well worth bearing in mind. He also alludes to those extremely interesting cases where there is to all appearances acute Bright's disease, but no albuminuria. The only suggestion we can make with regard to such anomalous occurrences is, that albumen may be present, but not in a form to be detected by our ordinary reagents. As to the causation of acute Bright's disease, Dr. Johnson, as is well known, looks upon cold and wet as its most potent factors, putting of course on one side the poison of scarlet fever. In this we are strongly inclined to agree with him, holding with him also that alcohol is by far the more frequently an agent in the production of chronic renal change.

This brings us to the consideration of chronic Bright's disease, especially that connected with the small red kidney; this, in many respects, is an admirable chapter, and we would more particularly point to that division of it referring to the symptomatology of the affection, which is a masterpiece of clear clinical observation and statement.

The next chapter is devoted to the consideration of the large white kidney. As many of our readers are aware, most German authorities hold this to be an intermediate condition between what they call parenchymatous nephritis and the contracted kidney. True it is that this form of kidney some-

times terminates in contraction; but the history, symptoms, and, in short, everything connected with the malady, tend to separate it from the kidney known in this country as the contracted kidney *par excellence*. Of the waxy kidney we have not much to say. Dr. Johnson recognises its frequent but not invariable connexion with suppuration, but he rejects Virchow's interpretation of the accompanying phenomena. They are not due, he thinks, to intravascular change, except that too be accompanied by tubular or intratubular change. In short, this form of kidney mischief merges insensibly into that more commonly known as large white kidney.

We have left ourselves but little space to speak of the treatment recommended by Dr. Johnson, which is, as might be expected of one with such a clinical experience, both sound and judicious. We would particularly note his use of the wet pack in acute renal dropsy, his very careful use of purgatives, and his use of iron, as points well worth notice. So, again, in the chronic forms, are his modes of using purgatives and diuretics; and, finally, what he says with regard to puncture of the limbs. There is in this, as in other portions of the work, a vast amount of sound sense, which we strongly commend to our readers.

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*Archives of Ophthalmology and Otology.* Edited by Prof. H. Knapp, M.D., of New York, and Prof. S. Moos, M.D., of Heidelberg. Vol. III., No. 1.

We have previously had occasion to draw the attention of our readers to the high character of the communications, and the excellence of the engravings and chromo-lithographs of this valuable serial. The present number is fully up to the high standard maintained by the editors, and contains twenty-three articles by well-known ophthalmic and aural surgeons in the two continents. Space will only permit us to allude to a few of the more remarkable cases, first among which in the volume is that of a man, aged fifty, suffering from "Leptothrix in the Upper Canaliculus," communicated by Dr. Emil Gruening, of New York. The patient had an acute inflammatory intumescence of the caruncle and adjacent conjunctiva, and a cylindrical swelling along the course of the upper canaliculus, and the upper punctum was much enlarged. On pressure a small quantity of pus-like substance made its appearance at the punctum, but continued pressure produced no further discharge, and the tumour did not diminish. The lachrymal sac was intact. The case so strongly resembled Graefe's description of leptothrix in the *lower* canaliculus that the diagnosis was easy. The canaliculus was slit by Prof. Knapp, and five yellow, roundish concretions, the size of pin's heads, removed. On microscopical examination leptothrix elements were recognised, and a portion was successfully cultivated in glycerine. The inflammatory symptoms subsided, but the epiphora continued.

The same writer contributes a case of "Spongy Exudation in the Anterior Chamber" in a case of syphilitic iritis, and points out its resemblance to the cases recorded by Prof. Schmidt, of Marburg, and Prof. Gunning, of Amsterdam. This short article will be interesting to ophthalmic surgeons, as also the following:—"A Case of Corectopia," by Dr. Pooley; "Embolism of Branches of the Central Retinal Artery" (two cases); "Epicanthus and its Treatment," by Prof. Knapp; and Dr. Hasket Derby's experience of sixty-four cases of "Cataract Extraction by Graefe's Method." Dr. Driver's article "On the Treatment of some Eye Diseases by the Constant Current" is well worthy of perusal. Electricity as a therapeutic agent in ophthalmic practice—or, indeed, in any branch of our art—has found little favour among British practitioners; as much, perhaps, through a want of knowledge of the principles and modes of application as from any disbelief in its efficacy when judiciously used. Dr. Nieden, of Bonn, writes recommending the treatment of ulcus corneæ serpens by repeated slitting of the base of the ulcer.

Among the otological communications of interest are—(1) "An Alarming Hæmorrhage from the Ear after Extraction of a Small Polypus," which Prof. Moos thinks was due to the nature of the growth, it being probably a polypoid angioma cavernosum, and similar to the one described by Dr. Buck in vol. ii., p. 72, of the *Archives;* (2) "Exuberant Development of Aspergillus in the External Auditory Canal, without Symptoms of any Irritation"; and (3) "Gunshot Wound of the Eustachian Tube," in which the tube became permanently occluded through the inflammation following the injury, and a lasting disturbance in the mechanism of the tympanic apparatus resulted.

Of physiological as well as pathological interest are Prof. Moos's cases and paper "On the Significance of the Higher Musical Tones." Of great practical value is Dr. Buck's communication "On the Diagnosis, Pathology, and Treatment of the Diseases of the Mastoid Process"; and of great utility are the suggestions for the "Systematic Testing and Recording the Acuteness of Hearing," by Prof. Knapp. Dr. Bocttcher, of Dorpat, contributes a very interesting case of "Fibro-Sarcoma of the Auditory Nerve," with the changes produced in the retina and labyrinth, which may be said to form the beginning of the pathological histology of the cochlea.

In future numbers we should be glad to see communications from British surgeons; but, whether these be present or absent, the work has such strong practical and scientific claims that all interested in ophthalmic and aural surgery should possess and read it.

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*Traité Pratique des Maladies des Voies Urinaires.* Par Sir Henry Thompson, F.R.C.S., Professeur de Clinique Chirurgicale et Chirurgien à "University College Hospital," etc. Traduit avec l'autorisation de l'Auteur, et Annoté par Edward Martin, Edward Labarraque, et Victor Campenon, Internes des Hôpitaux de Paris; Précédé des Leçons Cliniques sur les Maladies des Voies Urinaires, Traduites et Annotées par les Docteurs Jude Hue et F. Gignoux.

*The Complete Works of Sir Henry Thompson,* Professor of Clinical Surgery and Surgeon to University College. Translated into French, with the addition of Notes and with 280 woodcuts inserted in the text. Paris: J. B. Baillière et Fils. Pp. 775.

It would be useless at this time to attempt anything like a review of works so well known as those of Sir Henry Thompson, but none the less is it our duty both to that gentleman and to our readers to note the appearance of such a complete and perfect work as that which the French publisher has set before us. Not only have we here the entire works of Sir Henry Thompson in one convenient volume, but we have them also better and more fully illustrated by woodcuts than in the English editions. The clinical lectures were some time ago published separately in French dress, but to our idea marred by an introductory anatomical dissertation from the pen of the translators; this is here omitted. When we have works so purely practical as those of Sir Henry Thompson, we can well afford to dispense with anatomical introductions from other pens. In conclusion, we can only say that for those who read French with ease and comfort the present edition is perhaps the best meanwhile obtainable of Sir Henry Thompson's works.

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*Remarks on the Uses of some of the Bazaar Medicines and Common Medical Plants of India, etc.* By Edward John Waring, M.D., F.R.C.P., Editor of the "Pharmacopœia of India." Second edition. London: J. and A. Churchill. Pp. 212.

Dr. Waring, in his preface, tells us that this little work was first published fourteen years ago, for use in Travancore; and it is in hopes of making it of more extended usefulness that he publishes this enlarged and improved edition. The book is chiefly addressed to educated natives of India, to missionaries and their pupils, and to the residents in India far removed from skilled assistance. As a work on therapeutics, the agents in which are those substances most readily to be found in the bazaars of India, and in the native plants, the work is most excellent, but the difficulty rests in diagnosis. This is in a certain way provided for by the index, which forms part of the book, but, we fear, somewhat imperfectly. Nevertheless, as it stands, the work can hardly fail to be of use in India and the adjacent countries.

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*Drd. Hoffmann's medicinischer Führer durch Wien.*
*Dr. Hoffmann's Medical Guide to Vienna.* Vienna: Karl Czermak. 1874.

About this time of the year some of our fortunate juniors will doubtless be on the point of starting to spend the winter at one of the great continental schools of medicine. Vienna has long been one of the most favourite of these with our countrymen, chiefly on account of the remarkable provisions which it possesses for the study of the various specialties. But without previous careful directions, or the assistance of a resident

friend, we know full well that the visitor to Vienna will for a time find himself helplessly lost in the midst of the abounding material, and may fail to take full advantage of his excellent opportunities. We would strongly recommend every professional visitor to Vienna, whether his stay is to be for weeks or for months, to provide himself with the very valuable guide, the full title of which is given above. It contains a short account of almost everything of interest connected with the medical portion of the University of Vienna and the General Hospital, including the professors and the subjects of their respective chairs, fees, days and hours of attendance, etc., as well as a list of the special hospitals and other medical charities of the city, details of the various learned societies, and a mass of other very useful information. The book will also be found very valuable by those who desire to know something of the constitution of the medical faculty and of the regulations for granting qualifications in medicine in one of the greatest of European universities.

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*Clinical Notes on the Electric Cautery in Uterine Surgery.* By J. Byrne, M.D., M.R.C.S.E., Surgeon-in-Chief to St. Mary's Hospital for Diseases of Women, Brooklyn, etc., etc. New York: William Wood and Company. 1873.

We can recommend this monograph to those of the profession who are specially interested in the subject of uterine surgery. The work contains a description of the necessary apparatus and instruments and of the mode of operating, as well as many useful hints on small but no less important matters of detail. A list of seventy-two cases treated with the electric cautery, some of the more important of which are given at length, may certainly be said to furnish results full of encouragement. The cautery has proved of service, not only in the extirpation of tumours of the uterus, but in the treatment of the more frequent and very troublesome class of cases known as chronic catarrh, inflammation, or ulceration of the mucous membrane of the cervix. The work concludes with a number of aphorisms pertinent to the operative management of malignant tumours of the neck of the uterus.

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*The Student's Handbook of Forensic Medicine and Medical Police.* By H. Aubrey Husband, M.B., M.C., M.R.C.S., L.S.A., etc. Edinburgh: Livingstone. London: Simpkin, Marshall, and Co. 1874.

The matter which forms the substance of this handbook is, on the whole, good, but it is put in an eminently unsatisfactory manner. The principle on which the book has been written is obviously that of providing the student with convenient materials for cramming himself against the ordeal of an examination in forensic medicine, and it contains a mass of facts, compressed and condensed in the most unpleasant and perplexing fashion. We can believe that the author may have found it a difficult matter to write a handbook of forensic medicine; but this is all the more reason why he should have attempted to keep the volume within more narrow limits, by avoiding confusing details, refined subdivisions, and tabulated statements, and by supplying the student rather with a rational account of the general principles of the subject. A very large portion of the work is devoted to toxicology.

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*The Student's Guide to Materia Medica, in accordance with the Latest Issue of the British Pharmacopœia.* By John C. Thorowgood, M.D. Lond., Lecturer on Materia Medica at the Middlesex Hospital, etc. London: J. and A. Churchill. Pp. 318.

This is one of the useful series of students' manuals published by Messrs. Churchill. It hardly in all respects meets the wants of the student of materia medica, inasmuch as the components of all the pharmacopœial preparations are not given, and this would necessitate the use of a second volume, such as the Pharmacopœia itself, or Squire's "Companion." It has, however, much merit as an introduction to the study of therapeutics.

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*Die Anfänge der Lebensweisheit.* Von Dr. F. A. von Hartsen.
*The Beginnings of Worldly Wisdom.* By Dr. F. A. von Hartsen. Leipsic. 1874.

This is a little book of upwards of one hundred pages on the aims and principal conditions essential for the attainment of happiness. It is carefully and thoughtfully written, and to the English student of German well worthy of attentive perusal.

*Le Monde Microscopique des Eaux.* Par Jules Girard.
*The Microscopic World of the Waters.* By Jules Girard. Paris: Rothschild. 1872.

This is a very pretty and pleasant little book of 244 pages on the principal objects of interest which the waters of the earth present to the microscopist—especially to the non-professional one. The reader is introduced to the animal world in water, the microscopic aquatic plants, and the subject of micro-geology in succession, and may make himself moderately acquainted with these from a description which he will find neither burdened with excess of science nor inflated with sentiment and poetical exaggeration. Sixty-eight illustrative figures in the best style very much enliven the pages of the volume.

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## FOREIGN AND COLONIAL CORRESPONDENCE.

### FRANCE.

Paris, September 14.

The Exhibition of Insects, Useful and Destructive: The Phylloxera—Exhibition at the Palais de l'Industrie—Proposed Enlargement of the School of Medicine—"Clamart."

A very interesting exhibition has just been opened in the hot-house (*orangerie*) of the garden of the Tuileries, and I feel certain that it will attract many visitors, as in it are to be exhibited useful and destructive insects with their products. It is open from 10 a.m. to 5 p.m. daily, and the charge for admission is fifty centimes or half a franc—that is, about fivepence. In the grounds around the building are exhibited garden chairs and seats of all kinds, ornamental vases, small tents, pumps, and other articles likely to be of use to those who are interested in gardening. I noticed a number of bees at work in a small glass case, constructing a honeycomb. Near the entrance is a bed of pyrethrum, a composite plant reputed to be an insecticide. On entering the building one sees all kinds of insects arranged under two heads—those which are useful to man and those which are destructive. Prominent among the first group are the bee and the silkworm, with all their products. These are represented in diagrams, in such a manner that the spectator easily understands the form and function of the various organs.

Tradesmen have taken advantage of the exhibition to parade such articles as honey, beeswax, honeycombs full of honey, wax candles, images, and flowers, and some of them are making a good business out of cakes which are composed of rye and honey. The cocoons of the silkworm are here woven into pretty little silk bags, which, I am sure, will find many purchasers. Various samples of silk are here exhibited by those who are engaged in the silk trade.

First among the insects which are destructive in their habits is placed the phylloxera, which, as I mentioned in my last, is creating a great sensation in France, owing to the havoc this insignificant-looking insect is causing among the vines. A very good description or rather illustration of this little insect is to be found in the exhibition. It is depicted on a large scale, in successive stages of development from the ovum to the mature insect; and the progress of the vine disease since 1868, attributed to these insects, is represented by maps. It is said that this parasite finds its way to the delicate rootlets of the vine through fissures in the ground. Should it meet with any obstacle it burrows a tunnel through it or it remounts to the surface in search of another crack leading to the roots. These destructive little creatures are so minute that they are also diffused by the wind. A vine plant is here exhibited in a state of partial decay, said to be due to the ravages of these microscopic parasites. As a handsome prize (300,000 fr.) has been offered for the destruction of the phylloxera, several persons have come forward with methods and drawings illustrative of their process for extinguishing the plague. Among these I noticed a boring apparatus for the introduction of some noxious gas into the soil; a pumping-machine for the application of alcohol to the affected plant, and some kind of earth resembling potters' clay, which is placed around that part of the stem which springs from the root. Those who believe in the insecticidal virtues of pyrethrum urge its application to the phylloxera also. Some of your readers of a scientific turn of

mind might be induced to visit Paris before the exhibition closes in the end of September, and may carry away some information useful to those who are practical gardeners, and some which may lead to the discovery of a means for exterminating the phylloxera.

Before quitting the subject of the phylloxera, I may mention that since my last it is being discussed as to whether the parasite is the cause or the effect of the disease of the vine. Several *savants* are inclined to the latter opinion, which they base on the grounds that the insect is only to be found on plants previously diseased. It is said that the plants are affected with anæmia, which must be combated to arrest the disease at its source, by restoring the plant to its normal condition by the proper application of manure, whence it derives its natural sustenance.

Not far away from the exhibition of insects is another in the Palais de l'Industrie, illustrative of ancient costumes, drawings, and tapestry. The visitor will be amply rewarded for his trouble. On the ground, under the great glass arched roof, is an exhibition by Paris tradesmen of some of their finest work. In the galleries are exhibited works of art and the natural products of various countries. In one of the rooms are shown the various articles of furniture of a model drawing-room, which is reserved for Madame MacMahon. The peculiarity about the furniture is that there are not two articles alike, and it is said that the idea has emanated from Baron Rothschild, the celebrated banker and millionaire.

Among the works of improvement that are being carried out in Paris, there is a project laid before the National Assembly for the enlargement of the School of Medicine, which it is to be hoped will be realised, as the present building is far from sufficient to meet the requirements of the great strides that are being made in the science and art of medicine and surgery. But the architect will be required to possess rare talents to be able to utilise the very limited and detached pieces of ground placed at his disposal for the carrying out of the project in question. He is in the first instance required to respect the present building, and at the same time to add to it in such a way as will not detract from its architectural proportions. On the other hand, the building is to be extended not only for the accommodation of the 5000 students that now prosecute their studies in these premises, but for the progressively increasing numbers, which, if steadily continued, will in twenty years be doubled.

The present School of Medicine, which was originally a convent, and subsequently converted into a college, was built in 1769; it was inaugurated in 1776, and is an elegant specimen of architecture. Little of the original building remains, as it had to be altered and added to to meet the requirements of the increasing number of students. The amphitheatre, however, is the same that was constructed a century ago. The front of the building towards the street is 198 feet in length, and is composed of a gallery of a double range of coupled Ionic columns, partly isolated, and partly embedded in the piers of the arches which support the anatomical museum above. The latter has twelve windows, interrupted by a great bas-relief representing Louis XV. accompanied by Wisdom and Beneficence, granting privileges to the School of Surgery, and the Genius of the Arts presenting to the King a plan of the building. A beautiful arched entrance leads into a rectangular court, which is sixty-six feet by ninety-six, and is adorned with a bronze statue of Bichat, inaugurated in 1858. At the bottom of this court stands the principal building, composed of a portico of six Corinthian columns surmounted by a pediment. The bas-relief of the tympanum represents Theory and Practice joining hands on an altar. Under this portico is a magnificent door which opens into the great amphitheatre; this is surmounted by a skylight, and can accommodate 1400 students at a time. The amphitheatre, which is semicircular, contains benches arranged in gradations, and on which have sat some of the most eminent men of our profession. It also contains a painting by Matout, representing Ambroise Paré practising for the first time the ligature of an artery after amputation. The door is surmounted by the bust of this eminent surgeon, under which is inscribed the well-known motto "Je la pansay, Dieu la guarit." The external portico leads to the grand staircase on the left, on ascending which a door to the left leads to the library, a large room, with a circular skylight, containing upwards of 30,000 volumes, and open daily, Sundays and Thursdays excepted, to students and doctors from eleven to four, and to strangers by permission to be obtained at the secretary's office. A door opposite to the staircase leads to the museum of comparative anatomy, referred to above, which was founded by Orfila, and contains a highly interesting collection of specimens of osteology, myology, and the different parts of the human and animal frame. A marble statue of Cuvier stands at the end of the first room, and further on in another room will be seen, under a glass bell, the model in wax of the dwarf "Bébé," who is represented as having been twenty inches high. He was born in the Vosges, and was attached to the service of Stanislas, King of Poland. He died in 1764 at the age of twenty-five. In another room is a collection of anatomical and surgical instruments, filling six presses, among which is the case of instruments used for the autopsy of Napoleon I., and a cabinet of instruments of natural philosophy. Besides these objects of interest the museum contains a very good collection of substances belonging to the materia medica and mineralogy. Under the library is a smaller amphitheatre and a chemical laboratory; but these buildings having been found insufficient, another series of buildings not far from the School of Medicine had to be arranged for the accommodation of the students. This group, called the Ecole Pratique, is composed of a large amphitheatre and several smaller ones, where professors *ex-officio* and the *agrégés* deliver lectures on the various branches of medical science. It constitutes a sort of training school for these gentlemen, and it is generally from them that the regular professors are recruited. These buildings are fitted up for dissections, histological, pathological, and chemical laboratories, which are placed at the disposal of the lecturers and students. These buildings have been considerably added to, and it is here that will be found the "Musée Dupuytren," founded by the illustrious surgeon of that name, which is devoted to pathological specimens alone. Here also may be seen the museum of the Anthropological Society of Paris. The total space covered by these two groups of buildings is about 20,000 metres, and the expense attending the alterations and additions proposed is estimated at 10,000,000 fr. Opposite the School of Medicine stands the Hôpital des Cliniques, a handsome building, founded on the site of the cloister of the Cordeliers, and devoted to surgical and lying-in cases. It contains about 120 beds in all, and clinical lectures are here delivered on these two branches.

But besides the dissecting-rooms referred to above, there are others which the students have the benefit of, and where anatomy and operative surgery alone are taught. I allude to the buildings of Clamart. This establishment was founded by the "Assistance Publique," and, although independent of the School of Medicine, the instruction here given is accessible to all the students, where they can prosecute their anatomical and surgical studies free of charge. The building, which stands on the site of the ancient cemetery of Clamart, consists of four vast dissecting-halls, an amphitheatre for lectures, and a histological laboratory. Each of these halls has twenty-four iron tables along the walls, covered with tin. Three to five pupils dissect at each table, so that ninety-six bodies may be under dissection at the same time. Nearly 2000 bodies are dissected annually, and about 600 students study their anatomy at this establishment every year. Through the kindness of Dr. Tillaux, the director of the institution, I was enabled to conduct a friend of mine—an English physician—over the place, and we were both highly gratified with what we had seen. The Econome or Assistant-Director was also very obliging and communicative. He accompanied us over the premises, and in going over the museum—which, by the way, is one of the best anatomical museums I have seen—he pointed out the specimens most worthy of note, and we were both (my friend and myself) much struck with the large collection of specimens of deformities of the spine. The Econome also showed us a most curious pathological specimen preserved in a large glass jar. It consisted of a portion of the lungs and the heart of an old man (a lunatic), who attempted to commit suicide by thrusting a long crochet-needle into his chest. The needle entered the left side, and traversed the lung and the left ventricle of the heart. The man, however, it is said, did not die from the effects of the wound, as he survived for fourteen months after, when he succumbed from an attack of pneumonia; but the question suggested itself to our mind, whether this latter affection was not the consequence of the traumatic lesion produced in the organ of respiration, and the presence of the needle there acting as a constant source of irritation, and thus gradually, though slowly, bringing about those pathological changes which constitute pneumonia. In other words, we were inclined to look upon it as a case of

traumatic pneumonia in a chronic state. Among the specimens of normal or physiological anatomy we were much struck with the preparation of the lymphatic system of one of the lower limbs, which was admirably put up some thirty years ago by M. Sappey, the present professor of anatomy at the School of Medicine. I may mention that it is from the Anatomical School of Clamart that the demonstrators and professors of anatomy are recruited—positions attainable only by competition. The Econome most obligingly related the different processes to which the dead bodies are subjected in order to preserve them for the longest possible period for dissection. Among the bodies preserved we were shown one, that of a middle-aged woman, injected in February last, and which is still in a perfect state of preservation, without any sign of decay or any trace of an offensive odour. The body looks as if it had been embalmed—that is, it resembles a body in the earliest stage of mummification,—and on inquiring how this was effected, we were informed that it was by injecting into the body a solution of the hydrate of chloral in the proportion of 1 to 10 parts. A mixture of carbolic acid and glycerine in the same proportions is sometimes used, but this is not found so efficacious as the chloral. The use of arsenic is almost entirely exploded from this establishment, as many accidents have been known to occur among the students during the dissecting season. It is still, however, employed in the height of the hot season, not as a preservative, but as an insecticide to destroy the flies. A visit to this establishment would certainly repay the trouble, as one might take away with him many useful hints, particularly if engaged in teaching anatomy, whether normal or pathological.

## REPORTS OF SOCIETIES.

### CLINICAL SOCIETY.

Friday, October 9.

Prescott Hewett, F.R.C.S., F.R.S., President, in the Chair.

The President exhibited a copy of the new volume of *Transactions*, and stated that all the gentlemen, British and foreign, who were elected honorary members of the Society at the last meeting, had written to acknowledge and accept the distinction thereby conferred.

#### Lee on Removal of a Ring of the Trachea.

Mr. Henry Lee showed a patient from whom he had removed the upper ring of the trachea for traumatic stricture. The case had been already related in the proceedings of the Society just published. The patient had twice narrowly escaped suffocation, and had been relieved on each occasion by tracheotomy. The third operation, that of removing a ring of the trachea, which had been the cause of the stricture, was performed after the patient had lost his voice for six months. The patient was still obliged to wear a tube, and through the opening the second ring of the trachea could be seen encroaching somewhat on its cavity, illustrating the way in which the stricture had been produced. His speech was entirely restored by the operation.

#### Esmarch on Bloodless Surgery.

Professor Esmarch said that he had found considerable misconception existing amongst surgeons in respect to bloodless surgery. Hence, during his visit to this country he had been induced to bring the subject before the Clinical Society. Statistics of his own operations performed bloodlessly compared favourably with other surgeons' statistics, even when their operations were performed according to the antiseptic method. But, to avoid errors of comparison, he would take his own cases alone, and compare those performed before with those done since the introduction of the bloodless method. Although the advantage extended to all operations, he would speak only of the amputations through the thigh and leg. Of eighty-eight ordinary amputations of the thigh, thirty-seven had died, or 42 per cent. Of sixty-seven amputations of the leg, nineteen, or 23 per cent., had been fatal. After the adoption of the bloodless method there had died of thirteen amputations of the thigh only one, of twelve amputations of the leg only one; so that the proportion of fatal cases in amputations of the thigh and leg taken together had been brought down from 36 to 8 per cent. These statistics sufficiently demonstrated the value of the method, which, with modifications, might be in all cases applied. That it might often be used where formerly it was considered inapplicable is now quite certain. Professor Esmarch described a case in which he had removed the upper extremity, including the scapula, together with a myxo-sarcoma as large as an ostrich's egg, situated between the thorax and scapula, and causing great pain. The limb was first bandaged with elastic webbing; the outer two-thirds of the clavicle were then removed; the subclavian artery and vein were tied and divided; next, the cords of the brachial plexus were cut through, skin flaps were formed, and the scapula and arm removed, with hardly any loss of blood. Healing was nearly completed when the Professor left Kiel. But operations elsewhere than on the extremities could be performed by the bloodless method. Thus, in the removal of erectile tumours of the scalp in children, all bleeding could be prevented by compressing the surrounding parts by means of steel rings mounted on handles. In operations on the trunk the same object could be attained by a thick ring of indiarubber secured by elastic tubing. Operations on the male genitals could also be performed bloodlessly by the employment of a slender piece of elastic tubing, made to encircle the root of the penis and scrotum. The Professor detailed a daring operation of this latter kind for epithelioma of the penis, scrotum, and inguinal glands on both sides. The penis and scrotum being encircled by the elastic tubing, which was also continued round the abdomen, in order to be secured, the penis and anterior wall of the scrotum were removed without loss of blood; the diseased glands were next taken away with the integument from both inguinal regions, both crura penis were dissected from the pubes, the urethra was brought to terminate at the back of the scrotum, and the whole wounded surface finally covered with the scrotal flaps. The wound healed; but the patient after a time sank, with cancerous deposits in the lungs and pleuræ. Professor Esmarch had used the bloodless method in 300 cases, and had met with no evil consequences attributable to it. The longest of his operations had lasted two hours and a quarter, and was a case in which many pieces of dead bone were first removed from one tibia, and the knee-joint was then excised, whilst an assistant operated for necrosis of the other tibia. This was not the case already published in one of Professor Esmarch's lectures.

The President remarked that all the members were greatly obliged to Professor Esmarch for his communication, which he had read in such very admirable English; but he regretted that it was not known sufficiently early that the paper was to be read, or assuredly most of the hospital surgeons of London would have been present to join in the discussion.

Mr. Mac Cormac, although one of the first in England to bring the method of Professor Esmarch into general notice, had not yet had sufficient cases to enable him to affirm or contradict the Professor's assertions respecting the decreased mortality after operations done according to his plan. He could substantiate the statement that no ill effects followed its adoption. It had been said that at one metropolitan hospital gangrene of the margins of the flaps in amputations was thought to have occurred, but he did not know that the observation was ever substantiated. In resection of the knee-joint, after the removal of the elastic band from the thigh, the tissues around the joint became red, as was usual, and a little blood was apt to flow into the space between the ends of the approximated bones at the knee after the limb had been done up, which was of course a disadvantage. The search after small portions of diseased bone was greatly facilitated by the adoption of the method.

Mr. H. Lee said that this was the first time he had ever regretted that a paper should not last beyond ten minutes. Professor Esmarch, he thought in consequence of the want of time, had mixed up two subjects. His method was adopted in two sets of cases—those in which the blood was, and in which it was not, pressed out of a part before the operation. In the former class of cases Mr. Lee had been greatly pleased with the plan recommended; notably in the removal of a vascular tumour from the palm of the hand, in which he could have done nothing without the bandage. In the second class of cases—viz., those in which an elastic tubing was put on the part without previous pressure of the blood from the tissues,—he would ask in what the tubing differed from an ordinary clamp? He had taken off a testicle of one pound in weight, using a clamp, without loss of blood, and had excised portions of tongue in the same way.

Mr. Clover said that the carbolic acid spray had been alleged to be the cause of sloughing of the edges of the flaps

in the cases mentioned by Mr. Mac Cormac. It would probably have more effect on a bloodless than on a bloody surface. He thought the elastic rope was unreliable, and apt to break if kept for a long time, and that an ordinary tourniquet, if cardboard were placed beneath it so as to prevent the puckering up of the skin, as he had used it for many years, was equally effective as, and less liable to break than, the elastic rope.

The PRESIDENT considered that Mr. H. Lee's case, at which he himself had been present, was one of the best illustrations possible of the value of Professor Esmarch's method. One could see the exact origin of the tumour in the palm; the large vessels were seen encircling the tumour, and were avoided; and all the parts were rendered distinct and wax-like in appearance. With regard to the Professor's case of amputation of penis and removal of glands from the groin, the President considered it a bold operation.

Professor ESMARCH did not clearly see how in that case a clamp could have been firmly applied. In many instances that instrument might form another means of attaining the bloodless method in operations; but he considered the application of the indiarubber tubing always easier. He had never seen an indiarubber rope break after application; nor would it do so if the material composing it were good. The difference between the ordinary tourniquet and the elastic rope was that the former was passive, the latter active, in its pressure.

DALBY ON EXTRACTION OF A FOREIGN BODY FROM THE EAR.

Mr. DALBY related the method he had employed to extract some plaster of Paris which had become moulded and hardened in the external auditory meatus. The accident had occurred to a gentleman while he was having a cast taken of his head, and the plaster at that time had found its way into the meatus, and rapidly hardened. It partially filled the passage, was in close contact with the tympanic membrane, and caused complete deafness and considerable tinnitus. The following was the plan adopted:—Whilst light was thrown through the speculum worn on the forehead, strong hydrochloric acid was applied on the end of a pointed piece of wood, drop by drop, to the centre of the mass, care being taken not to allow any of the acid to touch the meatus. Several drops of the acid were thus applied on four occasions, and the concrete became so far softened that a small hole could be drilled into it with a cataract needle, and pieces were from time to time picked out with a little hook, which was in common use among dentists. The great mass of the plaster, however, was softened by the application of acetate of lead, the action of which was to convert the sulphate of lime into sulphate of lead and acetate of lime. The latter salt being very deliquescent, the consistence of the plaster was so altered that the whole of it was finally piecemeal removed with the hook referred to. Throughout the proceedings, which occupied eight sittings of about half an hour each, reflected daylight was employed. The tympanic membrane was found uninjured, and the hearing unimpaired.

Mr. CLOVER did not know if it had occurred to Mr. Dalby to use, for perforating the foreign body, the American instrument, worked by one's foot, and used by dentists for drilling holes, etc., in teeth. It would have done the perforation easily, and with very great delicacy of manipulation.

Dr. DALBY said that the idea had occurred to him, and that he had examined the instrument at Mr. Edgelow's, and found it produce some pressure, which gave pain. Besides, as he had to use the speculum he could more easily perforate with an instrument which employed the hand only. Further, he had waited until the body was first softened.

Mr. PICK inquired if the foreign body had produced any ulceration of the meatus, and whether it would have been likely to come away if left to itself.

The PRESIDENT thought Mr. Dalby deserved great credit for the acuteness with which he had proceeded throughout the case. There was sometimes great difficulty in attempting the removal of foreign bodies from the ear, and the attempt sometimes produced great injury. If such a body was not easily extracted, the usual dictum was to leave it alone, at any rate for a time. That, however, could not be done in this case, as it would have produced ulceration of the tympanic membrane.

Mr. DALBY replied that no ulceration had been produced. Even if the mass had become loose it could not have come out, because the meatus dipped down internally, and the mass consequently was largest at its inner end. It had to be softened before it could be removed.

HAWARD ON CARIES OF ATLAS AND AXIS.

Mr. WARRINGTON HAWARD read the notes of a case of Caries of the Atlas and Axis. The patient was a boy aged eight years, who came of a healthy family, and had good health. His only ailment was a wry neck, which was of nine months' duration. The face was drawn towards the right shoulder, the face pointing to the left. There were wasting and want of irritability of the left sterno-mastoid muscle. There was a complete absence of pain, even when passive movements of the head were made in all directions, or when pressure was made upon the head or spine. There was no projection nor thickening over the spine; no enlarged glands in the neck; nothing unnatural to be felt behind the pharynx. Walking, running, or raising himself from the recumbent posture gave him no pain. There were no signs of scrofula about the child; nor, indeed, could any of the symptoms characteristic of disease of the cervical spine be discovered by repeated examinations. Nevertheless, there existed extensive caries of the atlas and axis; for the boy died of turbercular meningitis, and post-mortem there was found destruction of the superior articulating surfaces of the axis, of the odontoid process, of the lateral masses of the atlas, and of the check and transverse ligament. The ulceration of the axis was such as to allow the ring of the atlas to sink down upon its tranverse processes, and thus there was very little displacement forwards of the atlas and head. The upper part of the cord and origin of the left spinal accessory nerve were slightly pressed upon. The case showed how great an amount of disease of the atlo-axoid joint might exist without any of the characteristic symptoms, and in an otherwise healthy child. Disease of the cervical spine was, on the other hand, closely simulated by a case of periostitis of the inferior surface of the occipital bone.

The PRESIDENT remarked upon the total absence of all pain and symptoms pointing to the real nature of the case.

Professor ESMARCH had seen some such cases in which he had found very great ulceration of the bone without symptoms. A patient had come to him with contraction of both trapezii muscles, and an interval between the spinous processes of the fourth and sixth cervical vertebræ. And when, in that case, the head was bent forward, the spinous process of the intervening fifth vertebra could be distinctly pressed forwards, both in and out of position; and yet, with all that disease, the only symptom was the contraction of the trapezii muscles.

The PRESIDENT had recently seen a lady who was reported in society to have every day a "fresh bone in her spine out." Every day one bone of the spine was said to become dislocated, and the bone-setter who was in attendance duly replaced daily that bone!

## OBITUARY.

### JOSEPH SWAN, F.R.S.

"JOSEPH SWAN, F.R.C.S. Eng. 1843, and Member of the Council, author of numerous works on the Nervous System." Such is the brief return made by this distinguished anatomist some years since to the editor of the "London Medical Directory," and which appears also in the last edition, although he resigned his seat in the Council in 1869. If anything was required to show the extreme modesty of the man, we have it in the above, contrasting so favourably with the long and loud flourish of trumpets made by other members of the profession not possessing a tithe of the talent of this estimable gentleman, who died on the 4th instant at Filey, Yorkshire, aged eighty-three, and was buried there on the 8th instant.

Mr. Swan, after receiving a sound preliminary education in the cathedral city of Lincoln, was apprenticed to his father, a gentleman in the enjoyment of a very large practice, which had been in the family upwards of a century. On the termination of his engagement there he came to this metropolis to complete his professional education, selecting the then united hospitals of Guy's and St. Thomas's. Here, from his studious and retiring habits, he soon became a favourite of his teachers, especially of Sir Astley Cooper, who afterwards adopted a novel and most extraordinary way of showing his high esteem for the indefatigable anatomist, by making him a present every Christmas of—a well-selected human subject; a donation of far greater value in his eyes than any amount of the usual Christmas cheer. The

old members of the profession will well remember the great difficulty of obtaining anatomical subjects when they were students, and their dependence on the *resurrectionists* for a due supply. The hamper having been carefully packed, securely corded, and sealed with red wax bearing the arms of the great donor, was duly despatched to Lincoln by the night stage-coach, labelled "Glass, with care," and no doubt, from the great weight, was supposed to contain a few dozen of choice old wine; for it would have been a very serious affair to Mr. Swan if any discovery of its contents had been made in such a quiet cathedral city. The example thus set by Sir Astley Cooper was soon after followed by the equally generous and eccentric Abernethy, who had the highest opinion of Mr. Swan.

On the completion of his studies he offered himself for examination, and was admitted a Member of the Royal College of Surgeons more than half a century ago—viz., on October 1, 1813. After the then usual continental tour, he returned to England and settled down at Lincoln, and for some years was surgeon to the local hospital; and notwithstanding the many calls on his time entailed by a large practice, he found leisure to write an essay in 1816 "On Deafness and the Diseases and Injuries of the Organ of Hearing," which deservedly obtained for him the Jacksonian Prize of the following year. Continuing his investigations on the nervous system, he was again the successful competitor in 1819, when he carried off the prize for an essay "On the Treatment of Morbid Local Affections of Nerves." The Council of the College of Surgeons, ever mindful of its duties and responsibilities, having established, in 1822, a collegial triennial prize of the value of fifty guineas, the first to compete and carry it off was the subject of this notice, for his essay "On the Minute Dissection of the Nerves of the Medulla Spinalis, from their Origin to their Terminations, and to their Conjunctions with the Cerebral and Visceral Nerves, authenticated by Preparations of the Dissected Parts." The large number of preparations for this and his other essays are to be seen in the museum of the College of Surgeons, about to be enriched by a large additional number of similar preparations through the liberality of the executors. In 1825 Mr. Swan again carried off the triennial prize, the subject for it being "A Minute Dissection of the Cerebral Nerves from their Origin to their Termination, and to their Conjunction with the Nerves of the Medulla Spinalis and Viscera." On this occasion he was also presented with the honorary gold medal of the College. About this time, having been elected a member of the Council of the College of Surgeons, he was required by the by-laws to take up his residence in this metropolis, and selected Tavistock-square, where, having converted the billiard-room into a dissecting-room, he quietly carried on his scientific labours for the advancement of anatomical science. The results of these great labours are well known by his superb work, "Demonstrations of the Nerves of the Human Body" (folio), published in 1830, the engravings for which were made by the celebrated Finden, who received large sums for this and the fourth edition (published in 1834), and for his "Illustrations of the Comparative Anatomy of the Nervous System," published in the following year. His last work, "Delineations of the Brain in Relation to Voluntary Motion," was published about ten years ago.

On the resignation of his seat in the Council by Mr. Richard Clement Headington, surgeon to the London Hospital, in 1831, the Council recognised the undoubted claims of Mr. Swan by electing him to the vacancy thus created. Here his collegiate honours commenced and terminated; for as Copeland, Howship, and Briggs were passed over for seats at the examining board in favour of Lawrence, of St. Bartholomew's, so was Swan in favour of Stanley, of the same hospital; he also failed to be nominated as Hunterian Orator, or to either of the professorships. These slights he felt acutely, but continued to take an interest in the affairs of the College. On the memorable occasion of the struggle between Messrs. Kiernan and Partridge—or rather between the friends of these gentlemen—for the vacant examinership, at the special meeting of the Council summoned for that purpose, the respective claims of these gentlemen were considered so good that it became a drawn battle. The votes were again taken, but with the same result; consequently the meeting was adjourned in hopes that at a future sitting the result would be different. Before this took place the late "honest Tom Wormald," as he was familiarly and deservedly called, waited on Mr. Swan, who had not attended the meeting, and adroitly pointed out the injustice of which it was sought to make Mr. Kiernan (the senior candidate) a victim; and delicately alluded to his own case of being passed over for a similar appointment. He at once promised to attend and give his support to Mr. Kiernan; but added, "Here am I starving for brains" (he was then engaged on his last work, above alluded to), "and you come from the land of plenty!" Mr. Wormald promised to comply with his wishes, and immediately called on the writer of this sketch, by whom they were at once obtained. Mr. Swan kept his promise, and Mr. Kiernan was duly elected—a gentleman (as once observed by Lawrence) who had devoted himself for years with great zeal and success to the study of anatomy and surgery, both in this country and in the most celebrated schools of France and Italy. "I think," added the same authority, "that all the honours and rewards which the profession can confer should be open to all the members alike, without respect of persons or classes, and that the only distinctions which ought to be recognised are those which talents and industry may be capable of achieving for themselves." Well did the new examiner merit all that was said in his favour, and pleased indeed was Mr. Swan, with other members of the Council, at the result.

In the early part of 1869 Mr. Swan became so seriously ill that it was not expected he could survive; but in September, having recovered, his first act was to resign his seat as a life member of the Council of the College and at a meeting of that body, on October 14, it was resolved unanimously—"That the Council, in accepting the resignation of Mr. Joseph Swan, cannot forget that in his earlier years he enriched the Museum by his dissections of the nervous system, and they now beg to express to him their regret that his health should compel him to retire from a position in which his strictly honourable and upright feelings have ever tended to promote the best interests of the College and of the profession.—(Signed), Edward Cock, President."

A want of space prevents us recording many interesting anecdotes of this amiable gentleman, but the following is so characteristic of his sense of justice, and in one respect so amusing, that it deserves recording. His establishment consisted of one man and three female servants (and very pretty girls they were). On coming down to breakfast one morning, it was reported to him that Fanny was very ill, whereupon he immediately requested the attendance of Dr. Stroud, a well-known general practitioner in the neighbourhood, and a man of great literary tastes, well known by his treatise on the Physical Cause of the Death of Christ, and its relation to the principles and practice of Christianity, who attended her at once, and in reply to Mr. Swan's inquiries stated it was a case of acute peritonitis. Her sufferings increasing, Dr. Stroud was again hastily summoned, and, making gentle pressure on the abdomen, was suddenly startled by hearing beneath the clothes the cry of an infant. Here was an *exposé* of the poor girl and of the Doctor! Of course Mr. Swan was acquainted with the result, and the young mother having fixed the paternity on William, and the latter admitting it, he was at once dismissed, and no more men-servants engaged. The man soon after was taken very ill, and sent for his master, who at once obeyed the call; and seeing that he was evidently dying, and knowing he had made an ample provision whilst in his service, immediately sent for a solicitor. Before his arrival he pointed out that *justice* required him to make a settlement on the girl and his admitted offspring; this he readily agreed to, and, the lawyer arriving, it was legally carried out.

Mr. Swan died unmarried, but has left many friends to regret the great loss of a highly talented anatomist, and a thoroughly upright and virtuous man. By his last will he has made most liberal legacies to all his servants.

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## SIMON BELINFANTE, M.D., M.R.C.S.

We regret to announce the premature death, on July 14 last, of Dr. Simon Belinfante, of Mudgee, New South Wales. Whilst he was crossing a river on his way to attend a case at Gulgong his buggy was overturned, and, in spite of the efforts made to save him, he was swept away by the current and drowned. Dr. Belinfante, born at Amsterdam in 1831, had a distinguished career in the Medical Faculty of University College, London, where, among many honours, he took that high prize the gold medal in anatomy. Having taken the M.R.C.S. of London and the M.D. of St. Andrews, Dr. Belinfante eventually settled in New South Wales, where to his medical qualifications he soon added a legal one, being admitted to the bar at Sydney in 1867. From this time he exercised both the

medical and the legal professions, and many instances recorded in the public press testify to the ability and ingenuity with which he conducted the forensic cases which he undertook, in which he more than once elicited expressions of cordial admiration from the Bench. In some of these cases his medical knowledge gave him a singular advantage in cross-examining witnesses. In the practice of his medical profession he had great ability, and was rapidly rising in estimation and influence, when his career was so sadly cut short. Dr. Belinfante was of a warm and generous temper, never forgetful of family and friends, of unceasing activity, prompt and cool in emergency, and of varied talent and acquirements. His sad death has given a terrible shock to his sorrowing family and friends.

### WILLIAM WEBSTER FISHER, M.D.

We have to record the death of Dr. William Webster Fisher, Downing Professor of Medicine in the University of Cambridge. Dr. Fisher graduated as M.B. in 1834, and was shortly afterwards elected a Fellow of Downing College. In 1841 he was appointed to the professorship, which he held up to the time of his death. The appointment is worth £400 a year, with a residence in Downing College, and it is annual. It is in the gift of the Archbishop of Canterbury and York, and the Masters of St. John's, Clare, and Downing College.

## MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 8 :—

Sewell, William, 6, Wilton-road, West Uxbridge-road.
Beatty, Thomas Carlyle, Seaham Harbour, Durham.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Beckingsale, Daniel Loftus, M.D., C.M.—Temporary Resident Medical Officer to the Stockwell Fever Hospital.

Bernays, Mr. Herbert L.—Clinical Assistant to the Hospital for Consumption, Brompton.

Boyce, Joseph Wallace, B.A., M.B., L.R.C.S.I., L.M.—Medical Officer for Stillorgan Division of the Blackrock and Stillorgan Dispensary District of Rathdown Union, co. Dublin.

Cossham, Wm. Raymond, M.B., M.R.C.S. Eng., C.M.—House-Surgeon and Secretary to the Stourbridge Dispensary, *vice* J. P. Oates, M.R.C.S. Eng., L.S.A., resigned.

Gard, William J., M.R.C.S., L.S.A.—Junior Surgeon to the Royal Albert Hospital, Devonport, *vice* John Wilson, M.D., M.R.C.S. Eng., deceased.

Kelly, Mr. A. B.—Clinical Assistant to the Hospital for Consumption, Brompton.

Kerr, Norman S., M.D., C.M., F.L.S.—Medical Officer to the Christchurch District of the Parish of St. Marylebone.

Parsons, Arthur Daniell, L.R.C.P., M.R.C.S. Eng.—Medical Officer for No. 9, or Dawlish, District of Newton Abbot Union.

### NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—Richard J. Brown, Surgeon, to the *Jumna;* Matthew Coates, Staff Surgeon, Second Class, to the *Royal Adelaide*, additional for temporary service in the Plymouth Hospital; John Gray, Staff Surgeon, to the *Newcastle;* John Wood, Surgeon, from the *Duke of Wellington* to the *Crocodile*, complement incomplete; Robert Creighton, Staff Surgeon, to the *Himalaya;* Thomas Browne, Surgeon, to the *Himalaya*.

War Office.—Medical Department.—Staff Surgeon Andrew Robertson Smith, from half-pay, to be Surgeon-Major, *vice* Henry Vereker Bindon, M.D., deceased.

### BIRTHS.

Brailey.—On October 8, at King's-road, Brownswood-park, London, N., the wife of W. A. Brailey, M.A., M.D., Fellow of Downing College, Cambridge, of a son.

Dickson.—On September 11, at Khairwarrah, the wife of Lindsay Fredk. Dickson, M.D., Bengal Army, of a daughter.

Fegan.—On October 11, at Old Charlton, S.E., the wife of Richard Fegan, M.D., L.R.C.P., of a daughter.

Gray.—On September 11, at Mooltan, Punjaub, the wife of Surgeon-Major Robert Gray, Civil Surgeon, of a son.

Harris.—On October 8, at 3, Watkyn-terrace, Coldharbour-lane, S.E., the wife of Henry Harris, M.R.C.S., of a son.

Parker.—On August 7, at Fianarantsoa, Madagascar, the wife of George William Parker, L.R.C.P., M.R.C.S., L.S.A., of a son.

Sandiford.—On August 30, at Mozufferpore, Tirhoot, Bengal, the wife of G. T. Sandiford, F.R.C.S. Edin., of a daughter.

### MARRIAGES.

Adam—Drew.—On October 8, at St. Mary's Church, Caterham, James Adam, M.D., Medical Superintendent of the Metropolitan Asylum, Caterham, to Edith Emma, third daughter of George Henry Drew, Esq., of Beechhanger, Cheltenham.

Adsetts—Fayrer.—On October 7, at Claines Church, Worcester, John Adsetts, M.D., Surgeon, Army Medical Department, to Fannie, only daughter of the late Edward Fayrer, Esq., Control Department.

Elkington—Russell.—On October 8, at Solihull, Francis Elkington, M.D., Brockville, Ontario, Canada, late of Birmingham, to Henrietta, daughter of the late Richard Russell, Esq., St. Mary Abbott's-terrace, Kensington, London.

Glover—Burrows.—On October 7, at the parish church, Pemberton, near Wigan, Philip Campbell Hill Glover, to Helen Lucy Ann, eldest daughter of Robert Thomas Burrows, M.R.C.S.

Hallowes—Hoar.—On September 29, at Oldham, Adolphus Henry Blackwood Hallowes, M.R.C.S. Eng., L.S.A., of Maidstone, to Elizabeth, daughter of Edward Hoar, Esq., of Maidstone.

Monro—Fernau.—On October 8, at the Hotel de Ville of Bruges, and afterwards at the English Chapel, the Rev. Wm. Charles Monro, third son of Henry Monro, M.D., Cavendish-square, London, to Charlotte Elisabeth, eldest daughter of Mons. Georg Fernau, Conseiller Communal, formerly Belgian Consul in Buenos Ayres, of St. Croix, Bruges, Belgium.

Morison—Hogg.—On October 7, at St. George's, Hanover-square, John Morison, M.D., of St. Helier's, Jersey, to Maud, eldest daughter of Robert Hogg, LL.D., of St. George's-road, S.W., and Stillyans, Sussex.

Tate—Hesp.—On October 13, at the parish church of Torre, Torquay, the Rev. J. J. Tate, only son of the late Richard Tate, M.D., of 7, Russell-place, Dublin, and Manorhamilton, co. Leitrim, to Elizabeth, eldest daughter of the late E. L. Hesp, Esq., of Spring Grove, Huddersfield.

Tayloe—Walton.—On September 12, at St. Bartholomew's Church, Barrackpore, John Edward Tayloe, eldest son of E. Tayloe, M.D., South Lodge, Clapham, Surrey, to Annette Louisa, only daughter of the late Captain Norcliffe Bendyshe Walton, H.M.'s 17th Foot.

### DEATHS.

Beard, Louisa, wife of F. Carr Beard, F.R.C.S., of Welbeck-street, Cavendish-square, at Herne Bay, on October 12.

Chanter, William Wolferston, only son of the late William Wolferston Chanter, M.D., of Ilfracombe, at Maryfield, Pennsylvania, Exeter, on October 12, aged 31.

Kirkwood, John Templeton, M.D., L.F.P.S. Glasg., M.R.C.S. Eng., at Ayr Villa, 221, Maida-vale, after a long illness, on October 7, in his 63rd year.

Smale, George Edmund, M.R.C.S. Eng., L.S.A., at Endsleigh House Wellington-road, St. John's-wood, on October 7, aged 45.

Spicer, Mary, wife of Northcote William Spicer, Esq., of Chard, and daughter of David Macrorie, M.D., late of Liverpool, suddenly, at Chard, on October 6, aged 43.

### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Central London Ophthalmic Hospital, Gray's Inn-road.—Assistant-Surgeon. Candidates must be F. or M.R.C.S. or C.M. of one of the Universities of the United Kingdom. Applications, with testimonials, to the Secretary, on or before November 7.

City of London Hospital for Diseases of the Chest, Victoria-park.—Resident Medical Officer. Applications, with testimonials, to the Secretary, at the Office, 24, Finsbury-circus, on or before October 26.

County and County of the Borough of Carmarthen Infirmary.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Mr. H. Howells, 58, King-street, Carmarthen.

Farringdon General Dispensary and Lying-in Charity, 17, Bartlett's-buildings, Holborn.—Honorary Physician. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Honorary Secretary, S. Green, Esq., 10, St. Swithin's-lane, E.C., on or before October 27.

Kent and Canterbury Hospital.—House-Surgeon. Candidates must be duly qualified and registered. Candidates must attend, with their testimonials, by twelve o'clock on October 30.

Metropolitan Free Hospital, Devonshire-square, City, E.—Honorary Assistant-Physician. Applications, with testimonials, to the Committee of Management, on or before October 21.

North Staffordshire Infirmary, Hartshill, Stoke-on-Trent.—Junior Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. Ralph Hordley, Secretary, on or before October 21.

Ramsgate and St. Lawrence Royal Dispensary, Ramsgate.—Resident Medical Officer. Candidates must be doubly qualified and registered. Applications, with testimonials, to the Secretary, on or before October 20.

Royal Free Hospital, Gray's Inn-road.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before October 28.

St. George's (Hanover-square) Dispensary, 59, Mount-street, Grosvenor-square.—Resident Medical Officer. Candidates must be M.R.C.S. and L.S.A. Applications, with testimonials, to the Secretary, Mr. G. H. Leah, jun., 73, Park-street, W., on or before October 31.

Seamen's Hospital, Greenwich.—Visiting Surgeon. Candidates must be F.R.C.S. Eng. Applications, with testimonials, to the Secretary, on or before November 7.

University College, London.—Professor of Comparative Anatomy and Zoology. Applications, with testimonials, to John Robson, Esq., B.A., Secretary to the Council, on or before October 31.

York County Hospital.—House-Surgeon. Candidates must be unmarried. Applications, with testimonials, to the Secretary, 5, New-street, York, on or before October 31.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Brentford Union.*—Mr. J. G. Mackinlay has resigned the Workhouse; salary £140 per annum.

*Fylde Union.*—Mr. John Porter has resigned the Blackpool District; area 7065; population 9274; salary £43 10s. per annum.

*Hinckley Union.*—The Earl Shilton District is vacant; area 5539; population 3400; salary £30 per annum.

*Newcastle-upon-Tyne Union.*—Mr. G. C. Gilchrist has resigned the Third District; area 150; population 18,590; salary £85 per annum.

*Newmarket Union.*—Mr. G. B. Mead has resigned the Workhouse; salary £50 per annum.

*Solihull Union.*—Mr. John Archer has resigned the Yardley District; area 7430; population 5359; salary £17 per annum. Mr. Jonathan H. Kimbell has resigned the Knowle District; area 15,710; population 3268; salary £34 per annum.

*Stamford Union.*—Mr. Francis Southam has resigned the Wansford District; area 7021; population 1307; salary £25 per annum.

### APPOINTMENTS.

*Hunslet Union.*—Samuel J. Noake, M.R.C.S. Eng., L.R.C.P. Edin., to the Fifth District.

*Leek Union.*—Thos. E. Dukeyne, M.R.C.S. Eng., L.R.C.P. Edin., to the Endon District.

*Manchester Township.*—Wm. E. Pountney, B.M. and M.C. Edin., as Junior Assistant Medical Officer at the Workhouse Hospital.

*Nottingham Borough.*—Edgar B. Truman, M.D. St. And., M.R.C.S. Eng., F.C.S., as Analyst.

*Rochford Union.*—Edward E. Phillips, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Prittlewell District.

*St. Thomas Union.*—Charles Fox, M.R.C.S. Eng., L.S.A., to the Topsham District.

*Skipton Union.*—Wm. Birtwhistle, M.R.C.S. Eng., L.S.A., to the Skipton District and the Workhouse.

*Woodbridge Union.*—George W. Tailer, M.R.C.S. Eng., L.S.A., to the Walton District.

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Royal College of Surgeons.—The annual registration of students pursuing their professional studies at the eleven recognised metropolitan hospitals was brought to a close on Thursday, the 15th inst., and at the moment of going to press we are informed that the following is the number of new entries, including dental students:—St. Bartholomew's takes the lead with the large number of 106, followed by Guy's with 84, University College 81, St. Thomas's 55, St. George's 37, Middlesex 32, London 31, St. Mary's 30, King's College 25, Charing-cross 20, and the Westminster 8, making a total of 509 new entries. The gross number appears to be 1712, against 1650 last year.

The late Dr. W. W. Fisher.—The funeral of the Downing Professor of Medicine was solemnised on the 8th inst., at the Cemetery, Mill-road, Cambridge; in accordance with a wish of the deceased there was an entire absence of display. Among the personal friends who attended were Dr. Bond, the late Regius Professor of Physic; Dr. George Paget, the present Regius Professor; Dr. Latham, etc. On the coffin was the following inscription:—"William Webster Fisher, Downing Professor of Medicine, born 7th August, 1799, died 4th October, 1874.

The first meeting of the session of the Society of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday, October 17, at 7.30 p.m. The report of the Council will be read. Mr. G. S. Elliston, Dr. J. I. Mackintosh, and Mr. G. Hindle, Medical Officers of Health respectively for Ipswich Borough and Port; Caistor, Lincolnshire; and Over-Darwen, Lancashire, will be balloted for as extra-metropolitan members. The President will deliver an address "On the Estimation of the Sanitary Condition of Communities and the Comparative Salubrity of Towns."

The Truro Rural Sanitary Authority recently proposed to appoint the eight district medical officers of the Union as medical officers of health, which the Local Government Board hesitated to sanction, but recommended the appointment of one for the entire district. The subject was discussed at the last fortnightly meeting of the Authority, during which it was successively proposed to appoint four, then one, then two, and finally resolved to appoint four.

Health of Scotland.—There were registered in the eight principal towns of Scotland during the month of September last the deaths of 2305 persons, of whom 1183 were males and 1122 females. Allowing for increase of population, this number is 94 above the average mortality for September during the last ten years. A comparison of the deaths registered in the eight towns shows that during September the annual rate of mortality was 18 deaths per thousand persons in Aberdeen, 19 in Edinburgh, 23 in Paisley and in Perth, 24 in Greenock, 26 in Glasgow, 27 in Leith, and 33 in Dundee. Of the 2305 deaths registered, 1037, or 45 per cent., were of children under five years of age. In Paisley, 29 per cent. of the persons who died were under five years of age; in Edinburgh and in Aberdeen, 36; in Leith and in Perth, 38; in Greenock, 40; in Glasgow, 49; and in Dundee, 54 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 748 persons, thus constituting 32·4 per cent. of the mortality. This rate was exceeded in Dundee and in Perth from the prevalence and fatality of scarlatina; and in Leith from that of scarlatina and diarrhœa combined. Scarlatina still continues the most fatal of the epidemics, and is greatly on the increase, the mortality from that disease having increased from 295, or 12·2 per cent., of the mortality during August, to 402, or 17·4 per cent., of the mortality during September. The death-rate from scarlatina in the several towns respectively was as follows:—In Edinburgh, 4·5 per cent.; in Greenock, 7·6; in Paisley, 8·5; in Aberdeen, 8·8; in Glasgow, 19·2; in Leith, 24·1; in Dundee, 28·2; and in Perth, 38 per cent.

Employment of Koumiss in Paris.—This remedy, introduced lately into Paris by Dr. Landowski, has been found to be very useful at the various hospitals in which it has been tried. Its therapeutical action, so different from that of the milk whence it is prepared, is easily understood if we trace the chemical transformation which it undergoes. The lactose is changed in great part into glucose, and then into alcohol and carbonic acid. Moreover, during the lactic, which precedes the alcoholic fermentation, lactic acid is formed. Everyone is aware of the important action of lactic acid in facilitating digestion, as also of the stimulant action of alcohol, and the sedative action of carbonic acid. It would seem that the association of these principles with the albumen and the salts of the milk forms a most excellent combination. Theoretically, such association should lead us to employ koumiss whenever, from whatever pathological conditions, the economy has fallen into a condition of wasting and debility, and is in need of support and reconstituents. Practice has confirmed this view, for it has been employed in all the principal hospitals of Paris in affections of the respiratory organs—from mere catarrh to the third stage of phthisis,—and that with excellent results. In affections of the digestive organs in persons suffering from albuminuria, it has also been very serviceable. In cases in which the disease is accompanied by diarrhœa, the koumiss is given in a state of more advanced fermentation—koumiss No. 2. The patients soon get accustomed to this drink, and afterwards take it with pleasure. Commencing at first with two or three glasses daily, the dose is gradually increased until two or three bottles or more are taken.—*Rev. Méd.*, September 21.

A carter, who had just purchased a fresh mule, was thrown from his cart, the waggon passing over his shoulder-blade, bruising the cheek, and fracturing the right humerus. This case did well. Another patient who was in the ward at the same time was also a carter, who had the tibia of his right leg broken by his cart passing over him. A larger number of accidents of this description occurred during the year than in any former year. The mules are generally powerful, and require a bit across the gums of the upper jaw to hold them in check. The narrow, elevated, central part of the roads set apart for carts, with deep ditches on each side, and barely space for foot-passengers, coupled with the long projecting axletrees of the carts—the more projecting the more respectable—make such accidents very easy. A fatal accident of this sort occurred at nearly the same spot as a similar one reported last year. The official examination was a tedious one, and as, according to law, the body could not be touched or removed until the case was finally settled, it was a good illustration of the grave inconveniences connected with deaths on the street, from whatever cause, in a Chinese town. —*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

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## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

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*C. C. P.*—January 9, 1874.

*G. O. P.*—Alexander Blackwell, M.D., was beheaded at Stockholm, in Sweden, August 9, 1748. He was suspected of being concerned in a plot with Count Tessin, and was tortured, which not producing a confession, he was beheaded. He was the son of the Rev. Thos. Blackwell, Principal of the Marischal College, Aberdeen.

*Fourth Year, Exeter.*—If you are making up the four years at the hospital (Guy's) you should at once register. On explaining the mistake you will no doubt be allowed to register, although it was officially closed on Thursday. The practice of the Devon and Exeter Hospital would be recognised.

*Dr. D., Philadelphia.*—By all means. The idea is a good one. Not more frequently in the meantime. Many thanks.

*Leo F.*—In the eighteen largest English towns the average of deaths from zymotic diseases is 16·35 per cent. of the total annual mortality.

*Rusticus.*—At Kimpton's, medical publisher, 82, High Holborn.

*Vivian.*— "Books are a part of man's prerogative,
In formal ink they thoughts and voices hold,
That we to them our solitude may give,
And make time present travelled that of old.
Our life Fame pierceth at the end,
And books it further backward do extend.
*Sir Thos. Overbury.*

*Yule.*—An asylum was founded in Calcutta for children of European parents about the year 1815.

*A Candidate, St. George's.*—Registration for the Fellowship is not necessary at the College of Surgeons, only for Membership.

*A Metropolitan Teacher and J. G.*—The Government Inspector of Anatomical Schools, Mr. Charles Hawkins, always allows a liberal margin for gentlemen pursuing their anatomical studies beyond the number given him in the official return of the registration from the College of Surgeons.

*Seaton.*—The very clever article "Was it a Dream?" in the number of *Colburn's New Monthly Magazine* for October, 1873, is the work of a well-known surgeon-major who has been rusticating on your shore.

*Associate, King's College.*—We heard of the accident, but as neither Sir William Fergusson nor the other occupants of his carriage received serious injury, we refrained from announcing particulars. The carriage, we understand, was "smashed up," as Jonathan would say.

*Winchester.*—The late Dr. Henry Giles Lyford was surgeon to the County Hospital at Winchester for thirty years or more. He enjoyed an extensive and first-class general practice, which he inherited from his father, who flourished at a time ere the snug brougham had supplanted top-boots and leather breeches as the professional turn-out. No harder or better riders, by-the-bye, than the old practitioners who lived even before country by-roads were practicable for gigs. Dr. Lyford was a great enthusiast and ardent believer in phrenology; moreover he was a purist in diet. The following account from his own pen, published in Hare's "Life of Dr. Lambe," deserves to be perpetuated as a contribution to professional biography and to physiology. Writing in 1871, Dr. Lyford says:—

"I have now been an entire and complete vegetarian and total abstainer for about thirty years, during the whole of which period I have enjoyed the benefit of uninterrupted good health, which has sustained me without a day's cessation in the performance of the duties and toils of a very extended public and private practice. . . . The results have been the establishment of a uniformity of temper even under the most adverse circumstances, and a mental tranquillity when overtaken by the sorrows and trials of life; physical capabilities under active and protracted exertions; speedy restoration of muscular power and nervous energy, exhausted by disturbed rest and want of sleep: a harmless endurance alike of summer's heat or winter's cold, and of atmospheric vicissitudes of whatever description; a total absence of the feelings of thirst under all circumstances, and a direct hatred to the employment of stimulants of every description;—all these effects being most favourable to the establishment of the vital conditions so essential to health and longevity. I must here narrate a singular and arduous undertaking which, some years since, I underwent without sustaining any ill effects whatever. An elderly lady became a patient of mine who was most peculiar and eccentric in her habits and ideas. She laboured under the impression she should die at any moment unless a medical man was in immediate attendance. She accordingly determined to carry out her views, and for this purpose she selected two who were to undertake this supervision, one to remain in her room all day, the other all night, for which I was chosen, two nurses being in constant attendance likewise. She resided in the country about three miles from my house. I commenced my visit at ten, riding each night on horseback, and remained with my patient until five in the morning, when I took my departure. On my return home I lay down for an hour on my bed, obtaining in that time a short sleep, when I arose, had my usual cold bath, and then, being refreshed, I prepared for my daily professional duties. All the individuals engaged in this unique undertaking, including the day medical attendants, and whose diet was of the ordinary description, including meat, are since dead, and I attribute my endurance and preservation, under God's blessing, to the sufficiently supporting and unstimulating quality, and therefore unexhausting character, of my vegetable food, by which a speedy renovation of fatigued energies was restored with unusual facility. But you ask me what induced me to substitute the vegetable for my previous ordinary diet. I reply, the neighbourhood in which I resided is a purely agricultural district, and the food of the rural population, though not exclusively vegetarian, is yet much in excess of the quantity of animal food, and my observation and experience of them enables me to say that they are very healthy, strong, and long-lived. Again, my attention was especially directed to the influence of diet whilst for many years medical officer to three prisons—county gaol, county Bridewell, and city prison,—in each of which, the allowance of animal food being limited, the cereal being that on which they received their support, the beneficial influence of this diet was particularly manifested by the health of the prisoners, the mortality in the county gaol especially being less, according to statistics, than the general mortality. . . .

"I subjoin my dietary, which I have used undeviatingly up to this:—

"*Breakfast.*—Weak tea, with a teaspoonful of milk, and without sugar; bread, white and brown, with honey instead of butter; and marmalade.

"*Dinner.*—Macaroni with bread crumbs, baked; vegetables cooked, when in season, of all descriptions; farinaceous puddings; fruit; no condiments except salt.

"*Tea.*—The same as breakfast. My puddings are made with milk and water, and without eggs. I use no butter or oil."

Our readers must remember that there are many persons, of all ages, whose digestive organs will not deal with farinaceous food, but allow it to pass undigested, and load the colon with pasty tenacious matter—not true fæces, but undigested food. Secondly, most people find animal food the quickest restorative; and thirdly, no rule can be drawn from agricultural labourers that shall be applicable to townsfolk. Lastly, prisoners in the prime of life, or from fourteen to fifty-four, ought to have a lower death-rate than the general population.

*Coffee.*—It appears from the researches of M. Doyen that different preparations of coffee have different qualities. Coffee prepared by infusion has the perfume, but is *light* and little nutritive. Boiling dissipates perfume, but dissolves more of the extract; and if, as is the Eastern custom, the coffee-powder is finely comminuted, the liquid is nutritious, but thick. M. Doyen proposes a method which shall combine perfume and nutrition as well. He advises 15 grammes (or 225 grains, or about half an ounce avoirdupois) for two cups. The berries are to be powdered just before they are used. Three-fourths of the powder is thrown into cold water, which is made to boil, and kept boiling for ten minutes. Then the remaining fourth of the powder is cast in; the pot is removed from the fire, covered up, and allowed to remain five minutes. The liquid is now ready; but it may, if desired, be passed through linen. So prepared it is brownish, not black, and slightly turbid from the fatty matter, of which coffee contains 12 per cent.

*Nauseous Medicines.*—There is nothing new in the proposition to fill the mouth with some sweet and agreeably tasting substance so as to impregnate the nerves of taste before swallowing anything bitter or nauseous. The extract of liquorice is one of the best things for the purpose.

*A Tell-tale Emetic.*—Æsop the fabulist was deformed, a stammerer, and a slave. Of course he was bullied and put upon by his fellow-slaves. One day his master received a present of new figs, which one of the slaves ate up. When the master came home, this slave accused Æsop of having eaten the figs. Whereupon Æsop, unable to stammer out a word of defence, put his finger down his throat, vomited up all the contents of his stomach, showed that there were no figs there, and then, by signs, demanded that his accuser should do the same. This was done; the stolen figs were brought to light, and the guilty slave received the bastinado, which would otherwise have fallen on Æsop's back. Quick brains made amends for a stammering tongue.

*J. B., St. Bartholomew's.*—The next primary and pass examinations for the diploma of Membership of the College of Surgeons will take place respectively on the 7th and 13th proximo; that for the Fellowship on the 20th. Particulars are given in our advertising pages.

*Juvenis.*—Get a meeting called of all the members of the profession in some public building. Induce all you can to attend. Get the oldest and most respected practitioner to take the chair, and resolve the meeting into a society. Most of the work falls on the secretary, usually the youngest member. If you are wise and wish to prosper, strenuously avoid medical ethics and medical politics.

*Ronald F.*—Michael Servetus was burnt at Geneva, October 27, 1553. He published a work upon the circulation of the blood, entitled "Christianismi Restitutio," which had been printed but a month before his death. The care taken to burn all the copies of it at Vienna, in Dauphiny, at Geneva, and at Frankfort rendered it a book of great scarcity. Mention is made of one copy in the catalogue of M. de Boze's books, which has been regarded as the only one extant. In reference to this work by Servetus, Dr. Sigmond says:—"The late Dr. Sims, for many years President of the Medical Society of London, bequeathed to me his copy of Servetus, to which he has prefixed the following note: 'The fate of this work has not been a little singular. All the copies except one were burned along with the author by the implacable Calvin; this copy was secreted by Dr. Colladoa, one of the judges. After passing through the library of the Landgrave of Hesse-Cassel, it came into the hands of Dr. Mead, who endeavoured to publish a quarto edition of it; but just before it was completed it was seized by John Kent, manager of the press, and William Squire, messenger-in-ordinary, on May 29, 1723, at the instance of Dr. Gibson, Bishop of London, and burnt, a very few copies excepted. It contains the first account of the circulation of the blood, above seventy years before the immortal Harvey published his discovery.'" Dr. Sigmond, wrote a work entitled "Unnoticed Theories of Servetus: a dissertation addressed to the Medical Society of Stockholm by George Sigmond, M.D., late of Jesus College, Cambridge, and formerly President of the Royal Physical Society of Edinburgh. London, 1826." This work is scarce, in consequence of having been suppressed or withdrawn from publication.

*M.D., Stockwell.*—The notorious David Griffith Jones was struck off the list and the Register immediately after his conviction. The equally notorious Rev. Dr. Carden, on his release from Wandsworth Prison, commenced practising as a homœopath.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Lincolnshire Chronicle—The Cosmopolitan—Journal de Médecine et de Chirurgie—Practitioner—Colonial Standard and Jamaica Despatch—Students' Journal and Hospital Gazette.

BOOKS AND PAMPHLETS RECEIVED—

Kraus's Compendium der Neuren Medicinischen Wissenschaften—Die Mathematischen Grundlagen der Medicinischen Statistik Elementar Dargestellt, von Dr. J. Hirschberg—Tidy's Report on the Sanitary Condition of the Parish of St. Mary, Islington—Transactions of the Medical Society of the State of Pennsylvania, vol. x., part 1—L'Ubbriachezza e sue Forme, per Dott. E. Fazio—Quelques Considérations sur le Cancer Utérin ses Complications et sur son Traitement en Particulier, par le Dr. L. Carrère—Autobiography of Dr. A. B. Granville, edited by Paulina B. Granville, vols. i. and ii.—Von Trölsch on the Surgical Diseases of the Ear—Barrett on the Management of Infancy and Childhood in Health and Disease.

COMMUNICATIONS have been received from—

Dr. Fayrer, London; Dr. J. C. Murray, Newcastle-on-Tyne; The Registrar-General, Edinburgh; Mr. J. E. Ingpen, London; The Registrar of the Apothecaries' Hall; Mr. W. J. Cooper, Glasgow; Dr. E. Diver, Kenley; Dr. Barnes, Carlisle; Dr. Nathan Allan, Lowell, U.S.A.; Mr. J. B. Shepherd, Stourbridge; Mr. H. A. M. Drought, Blackrock; The Honorary Secretaries of the Hospital Out-patient Reform Association; Dr. J. Rogers, London; Messrs. Arnold and Sons, London; Mr. H. Courtenay Fox, London; Dr. Crichton Browne, Wakefield; Dr. Kerr, London; Dr. Tripe, Hackney; The Secretary of the Clinical Society; The Secretary of the Hospital for Consumption, Brompton; The Secretary of the Fever Hospital, Stockwell; Mr. J. Alsop, Newton Abbot; Dr. A. B. Shepherd, London; Dr. Veitch, Middlesborough; Dr. J. W. Moore, Dublin; Mr. H. A. Reeves, London; Dr. J. Hughlings-Jackson, London; Mr. J. Chatto, London.

## APPOINTMENTS FOR THE WEEK.

*October* 17. *Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

19. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. An Address by the President, Mr. Victor de Méric; also, a Paper by him on "Ricord and his School." Dr. Theodore Williams, "On a Case of Ulcer of the Stomach successfully treated by Nutritive Injections."

20. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8 p.m. Dr. Crisp—Cancer of the Omentum. Dr. Peacock—1. A Case of Aneurism; 2. A Case of Addison's Disease. Mr. J. Croft—Fibro-Cystic Tumour of the Neck. Dr. Hilton Fagge—Diffused Suppurative Inflammation of the Stomach. Dr. Coupland—1. Diffused Aneurism of the Abdominal Aorta; 2. Disease of the Pulmonary Valves. Mr. Whately—1. Renal Calculus; 2. Hydatids of the Gall-Bladder. Dr. Cayley—1. Congenital Disease of the Aortic Valves; 2. Syphilitic Disease of the Heart. Mr. Nunn—Hypertrophied Merrythoughts of French Partridges.

21. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

23. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Mr. Carter, "On a Case of Vertigo, simulating Brain Disease, from Fatigue of Internal Rectus Muscle of Eye." Dr. Southey, "On a Case of Scirrhous Cancer of Pylorus, with Encephaloid Infiltration of Left Lung and Supra-renal Capsules."

Quekett Microscopical Club, 8 p.m. Mr. R. P. Williams, "On Cutting Sections of the Eyes of Insects, and on a New Instrument for that purpose."

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, October* 10.

### BIRTHS.

Births of Boys, 1203; Girls, 1111; Total, 2314.
Average of 10 corresponding years 1864-73, 2096·2.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 623 | 619 | 1242 |
| Average of the ten years 1864-73 | 656·0 | 624·2 | 1280·2 |
| Average corrected to increased population | ... | ... | 1408 |
| Deaths of people aged 80 and upwards | ... | ... | 34 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | ... | 9 | 3 | ... | ... | 2 | ... | 8 |
| North... ... | 751729 | 1 | 1 | 23 | 1 | 3 | 5 | 8 | ... | 5 |
| Central ... | 334369 | ... | 1 | 13 | ... | 4 | 1 | 2 | ... | 5 |
| East ... ... | 639111 | ... | 6 | 42 | 3 | 6 | 2 | 7 | 1 | 12 |
| South... ... | 967692 | ... | 1 | 20 | 4 | 4 | 6 | 5 | ... | 14 |
| Total ... ... | 3254260 | 1 | 9 | 107 | 11 | 17 | 14 | 24 | 1 | 44 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·631 in. |
| Mean temperature | 49·1° |
| Highest point of thermometer | 62·7° |
| Lowest point of thermometer | 38·1° |
| Mean dew-point temperature | 45·7° |
| General direction of wind | S.W. |
| Whole amount of rain in the week | 1·08 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 10, 1874, in the following large Towns :—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Oct. 10. | Deaths Registered during the week ending Oct. 10. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2314 | 1242 | 62·7 | 38·1 | 49·1 | 9·50 | 1·08 | 2·74 |
| Portsmouth ... | 120436 | 26·8 | 91 | 38 | ... | ... | ... | ... | 1·55 | 3·94 |
| Norwich ... ... | 82257 | 11·0 | 51 | 25 | 60·0 | 34·0 | 46·7 | 8·16 | 0·47 | 1·19 |
| Bristol ... ... | 192389 | 43·3 | 137 | 70 | 63·0 | 37·1 | 48·9 | 9·39 | 1·58 | 4·01 |
| Wolverhampton ... | 70396 | 20·9 | 52 | 26 | 60·4 | 37·1 | 47·6 | 8·66 | 0·64 | 1·63 |
| Birmingham ... | 360892 | 43·0 | 279 | 195 | 60·2 | 39·8 | 49·0 | 9·44 | 0·85 | 2·16 |
| Leicester ... ... | 106202 | 33·2 | 57 | 49 | ... | ... | ... | ... | ... | ... |
| Nottingham ... | 90894 | 45·5 | 46 | 46 | 61·3 | 34·8 | 46·8 | 8·22 | 0·57 | 1·45 |
| Liverpool ... ... | 510640 | 98·0 | 435 | 362 | 57·2 | 43·0 | 49·4 | 9·66 | 1·13 | 2·87 |
| Manchester ... | 355339 | 82·8 | 274 | 215 | 60·2 | 38·2 | 48·3 | 9·05 | 1·34 | 3·40 |
| Salford ... ... | 133068 | 25·7 | 83 | 75 | 59·7 | 39·0 | 47·9 | 8·83 | 1·45 | 3·68 |
| Oldham ... ... | 86281 | 18·5 | 65 | 65 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 123 | 86 | 58·9 | 40·0 | 48·9 | 9·39 | 0·40 | 1·02 |
| Leeds ... ... | 278798 | 12·9 | 111 | 151 | 59·0 | 41·0 | 48·9 | 9·39 | 0·27 | 0·69 |
| Sheffield ... ... | 261029 | 13·3 | 193 | 126 | 61·5 | 39·0 | 48·4 | 9·11 | 0·49 | 1·24 |
| Hull ... ... ... | 130996 | 36·0 | 117 | 90 | 60·0 | 36·0 | 48·1 | 8·94 | 0·75 | 1·90 |
| Sunderland ... | 104378 | 31·6 | 63 | 47 | 70·0 | 39·0 | 52·5 | 11·39 | 0·34 | 0·86 |
| Newcastle-on-Tyne | 135437 | 25·2 | 82 | 87 | 57·0 | 39·0 | 47·7 | 8·72 | 0·21 | 0·53 |
| Edinburgh ... ... | 211691 | 47·8 | 142 | 84 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 366 | 278 | ... | ... | ... | ... | ... | ... |
| Dublin ... ... | 314666 | 31·3 | 150 | 145 | 60·3 | 29·0 | 49·0 | 9·44 | 0·84 | 2·13 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5231 | 3502 | 70·0 | 29·0 | 48·6 | 9·22 | 0·82 | 2·08 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·63 in. The lowest was 29·09 in. on Wednesday morning, and the highest 29·97 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

ON THE

## PATHOLOGICAL RESULTS OF PECTOUS CHANGES IN COLLOIDAL STRUCTURES.(a)

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

Mr. President and Gentlemen,—The honour you conferred on me in asking me to deliver the inaugural reading of the present session of the Hunterian Society was so exceptionally distinguished, I felt, in accepting it, embarrassed in the selection of a subject worthy the opportunity. I determined at length to take one on which my mind has longest rested; to recast what, by many years of observation, experiment, and experience, I have most carefully studied; and to venture on something a little in steady advance based upon what has been carefully learned from nature. This method is, to my mind, the safest and soundest in original research. It is the method by which all true scientific work has progressed. The way is dark; let us set up our lights as we feel the way; but never a new light beyond the ray of the last.

### The Term Pectous.

Under the term "pectous change," which now for the first time is introduced into pathological language, I wish to include, as under a generic term, a series of morbid phenomena, at first sight very different in character, but each a demonstration of a single process, occurring under differing conditions from the same cause.

The word pectous was originally employed by Graham to indicate a thickening of all colloidal or jelly-like substances. In one respect the word means the same as our old terms "sizy," "precipitation," "coagulation," "clotting," "rigor mortis." It is, however, much more comprehensive. It applies also to change taking place, not only in fluid, but in solid or semi-solid colloids, by which they lose their clearness and become dense and opaque. A solid translucent membrane, as the capsule of the lens, may thus undergo this change, or the semi-fluid crystalline lens itself, equally with albumen or the fibrine of the blood.

When I was carrying out my researches on the synthesis of cataract, published in Brown-Séquard's journal, several years ago, I had the pleasure of making a demonstration of the facts pertaining to that research to Professor Graham. On that occasion I learned from the discoverer himself, better than from his writings, the full meaning he attached to the word. He applied it to every change in colloidal substance where the colloid passes from the condition in which it exists in an active state to a thickened and less active state. The change need not convey necessarily any immediate idea of modification of volume or of weight, though such may follow, but it always indicates an immediate molecular modification by which the physical properties of the colloid are transformed, and this whether the colloid be alone or in combination; be a fluid, a semi-solid, a solid; a mass, as a lens; a flat sheet, as a serous membrane.

A simple illustration or two will make all clear. When an egg is boiled the albumen in the shell occupies the same space, and is of the same weight, before as after the process. The physical condition of the albumen has, nevertheless, changed—it has become pectous. But the fine membrane that surrounds the albumen has undergone change of physical property—it has become opaque and dense; it, too, has become pectous. If we take the eyeball removed from a dead animal immediately after death, and subject it to gentle heat, the pectous variation is seen in series progressing through the structures. The cornea is glazed, dimmed, and shrivelled; the aqueous humour yields pectoid flakes; the crystalline lens becomes purely white, opaque, dense; and the hyaloid membrane of the vitreous takes on whiteness and opacity. All these parts have passed into the pectous form of colloidal matter.

### The Term Colloid.

The colloidal structures in the animal body are, in fact, all the living parts. The blood during life is not a mere mixture of water and of substances suspended in the water, but a true colloidal liquid in the active state. In it, each performing active functions, are the colloid fibrine, the albumen, and a third colloid, which I find always separates from blood, like a pellicle of caseine, when that fluid is evaporated, and which will be seen in the specimen I send round. In the same fluid float the semi-colloid corpuscles, a mixture probably of crystalloid and colloidal substance.

Out of the blood there is spread, through the body, an infinite series of colloidal structures: The great sheet of cellular membrane or tissue; the membranes enveloping all the organic parts; the lenses; the cartilages; the muscles; the tendons; the organic part of the skeleton; the skin, and the mucous membrane.

In fluids yielded by glands, to which the name of secretion may be applied, there is evidence of a colloid. In some secretions this is in very minute quantity; in others, as in milk, it is very large. In these instances the separation of the colloid and its appearance in the secreted fluid is by a process of which, as yet, we have little knowledge.

Lastly, in the nervous matter there exists a colloidal fluid which I have, after many efforts, succeeded at length in obtaining in its active state; that is to say, before it has become pectous. A specimen of this fluid I will now send round. In so far as I am aware, no specimen of the same fluid derived from nervous matter has been obtained. I wait a moment, therefore, to speak upon it.

*Experiment.*—In some experiments conducted in 1867 on the effect of extreme cold on nervous function, and which formed part of one of my courses on experimental and practical medicine, I observed that the brain of an animal could be frozen, with the result, if the process were not carried too low down into the medulla, of simply suspending cerebral function, and causing deep narcotism. In birds this result was singularly striking. In some instances the birds thus rendered profoundly comatose were permitted to sleep into actual death, and the brain in the frozen, or as I may call it *glacial* state, was removed and allowed to thaw. In the process of thawing I noticed that the brain matter passed from the hard state, due to the cold, into a soft, and I had nearly said fluid, state, and then again into a firm state—like that in which we commonly find nervous structure at our post-mortem examinations. This same series of transitional phenomena I had observed in the processes of freezing and thawing blood. Blood if frozen the instant it is removed from the vessels may be so thawed that it will become fluid, and after the stage of fluidity will pass into the semi-solid condition called coagulation; in other words, it will become pectous. Hence, in watching the brain matter, as I have stated, I felt I was watching the same order of phenomena, with this difference: that the transitional stage in the brain matter seemed to me much shorter than in the blood; it was, in fact, so transient I was unable to obtain any fluid from it to enable the change to be observed in a separated specimen of fluid.

*Experiment.*—By another procedure I have, however, been able to study this subject in a better way. Instantly after a butcher has killed a sheep I get him to lay open the skull by one clean sharp stroke, to take out the brain from its cavity, and drop it into a vessel containing ammoniated water. The ammonia suspends the pectous change, and, if the experiment succeed well, a fluid can be expressed which may become pectous while under observation. The fluid I send round is of this nature; and here is another portion of the same fluid in which the pectous change has been induced. To succeed in this demonstration many trials may have to be made, for the brain may become instantly pectous from the vibration of the blow by which the cranium is opened. In oxen that have been felled by the poleaxe and pithed with the cane, the brain substance seems to me to be rendered immediately pectous throughout its whole mass. On the table there are two specimens of brain; in one specimen the pectous process is perfected, in the other it is suspended.

### NATURE AND CAUSE OF PECTOUS CHANGE.

I have indicated already that by pectous change is meant a thickening and separation of colloidal substances from a state of solution. In the colloids with which we are concerned the separation, whenever it takes place, is always from water—at least, as far as we yet know. We see colloidal matter, therefore, in two forms—(*a*) when it is in a soluble and active condition, as in liquid albumen; (*b*) when it is pectous, and

(a) Lecture introductory to the Session 1874-75 of the Hunterian Society, delivered in the London Institution on October 14, 1874; Robert Barnes, M.D., F.R.C.P., in the chair.

is giving out water, as in clotting blood or in the formation of curd. For clearness sake, I shall speak of these two states as—

The Aqueous state.

The Pectous state.

*Experiment.*—In studying these two states, nothing is more immediately striking than the small quantity of colloidal substance that is capable of rendering a mass of water semi-solid. I send round two specimens illustrative of this fact. In the specimen marked "fibrine" you see reduced the amount of colloid fibrine that once held one pound of blood in the active colloidal state. In the other specimen you see a small piece of firm horny-like matter marked "silicic acid." That small portion once made three gallons of water colloidal; and when it was first made pectous it rendered that volume of water of firm jelly-like consistence. Now, although it is still shrinking and giving up water, it is reduced to such little volume that an ounce-bottle would hold it.

The cause of the pectous change is one of those problems which has most baffled the physiologist. In the study of it one fundamental error has prevailed, of this nature—that every condition which allows the phenomenon to take place has been set down as the cause of it. Thus the Greek physiologists, observing the phenomenon as it is seen in the coagulation of the blood, presumed that it was due to a process of cooling—a view still held by the vulgar, but long since overturned by Hewson, who proved that cold suspends the process altogether, while heat quickens it. Thus Hewson, seeing that fibrine tied up in a vein or an artery in the living animal does not coagulate, arrived at the conclusion that exposure to the air is the cause of the phenomenon. Thus Lancisi, seeing that in an aneurismal sac the fibrine is laid down in layers, owing to the slow motion of fluid through such a cavity, was led to teach that motion maintains fluidity and that rest is the cause of the precipitation. Thus John Hunter, noticing the disposition of the fibrine to coagulate out of the vessels, or within them when retained without motion, argued that coagulation is one of the effects of the life of the blood and is a vital operation. Thus Scudamore, following up Bauer's original research on the evolution of carbonic acid from blood, conceived such evolution to be the cause of the pectous phenomenon. Thus some later physiologists, observing that the admixture of fibrine with another fluid would produce the result, have considered such admixture as the cause; omitting altogether the fact that the same will occur, under other conditions, without any such admixture. Thus, lastly,—for I need not weary you with examples,—I myself, in my early days of experiment, having observed that ammonia added to blood holds the fibrine fluid, and that blood in the act of coagulating gives out ammonia, put two and two together, not unnaturally, and therewith came to the conclusion that the escape of ammonia is the natural cause of the pectous change. Had I but recalled the facts of the same phenomenon as they are seen when caseine of milk and other substances become pectous, I should have undoubtedly moved my hypothesis to the second position, and should have said, as I now say, that although ammonia, in a certain proportion, possesses the power, by its presence, of suspending the process, and although when the colloid is freed of the ammonia it will become pectous, the fact—very useful in its way to know—is not an explanation of the cause of the phenomenon.

The pectous change in the colloidal substances that are capable of existing in solution in water depends upon a disturbance between the water in which they are distributed and the solid matter of which they are composed.

The colloid exists, in fact, as I have already said, in two states—the aqueous, or active; the pectous, or passive. In the aqueous state the colloidal substance is saturated with water, for which it has no affinity. It is a substance, however, possessing a strong attraction of cohesion of its own particles, and although it may be distributed through water under certain fitting conditions which enforce combination, it is ready at any moment, by virtue of the self-attraction of its molecules, to separate from the water, to adhere molecularly, and to expel, when once the cohesion has commenced, from itself the water that previously held it in solution.

In the aqueous state the attraction of cohesion resident in the colloid is resisted by the water that is present; but the resistance, in all cases feeble, is in some examples, as in the fibrine of the blood, so slight that the merest disturbance suffices to break it, and allow the attraction of cohesion to commence. Give, then, the conditions for the liberation of the colloid, and the pectous change begins. The mind has only to rest on this simple and primary fact, and all the rest of the problem is clear. There is here a solution: in it is distributed a plastic matter, which is plastic by virtue of its molecular self-cohesive affinity, but the power of the affinity is resisted, and the colloid is held in temporary combination with water; remove the resistance, and the attraction will declare itself just as surely as will the attraction between the earth and any substance upon it, if the support which separated the substance from the earth be withdrawn.

At the same time, mere dilution with water, unless it be carried to an extreme that were incompatible with space, would not answer; and does not, for, although the pectous process may be retarded by addition of water, it is not prevented.

The natural plan adopted is that the colloid while in the aqueous state is held in that state, either by condensation of water or by the diffusion through it, in a limited amount, of some substance which, after the manner of a salt, has the property of fixing and holding water. If this retaining or fixing body be removed on the one hand, or if on the other hand it be in such excess that on its own part it fixes too much water, the attraction of cohesion in the colloid begins, and therewith the pectous change; but if the saline be in such small quantity as only to fix the water through the colloid, the effect is to produce combination and to maintain the aqueous state of the colloidal matter. A simple experiment or two will suffice to illustrate this plain, yet at first sight paradoxical, fact.

*Experiment.*—There is in this glass blood in the fluid state. The colloidal fibrine is present in this blood, and is retained in the aqueous state by the addition to it of chloride of ammonium.

*Experiment.*—In this dyaliser there is a specimen of this same blood which originally was held fluid by the same salt; but after being thus treated it was floated upon a membrane on water. The salt, which was the bond of connexion between the fibrine and the water, has diffused through the membrane into the water. The result is, the blood in the dialyser is pectous; it forms a firm coagulum.

*Experiment.*—There is here another specimen of blood in which the fibrine has been retained fluid by the addition of nitrate of potassa. On this I perform an experiment originally devised by Gulliver. I add water. As I shake the water with the blood a change takes place: the added water distributes the combining salt, and at a given stage removes it so effectually that the particles of fibrine exert their power of attraction of cohesion, and the colloid becomes pectous. You will see it by the time it reaches you as a firm jelly.

*Experiment.*—I reverse this process. Into a specimen of the same blood, held fluid by the potassa salt, I drop an excess of potassa hydrate. This substance, from its affinity for water, will seize water so greedily that around it the fibrine will instantly assume the pectous condition.

In these experiments a soluble salt is employed, but it is not essential that it should have been such a salt. It might have been a fixed alkali, it might even have been some of the acids; the only requisite is that the substance should act on water after the manner of a soluble saline. If a volatile body greedy for water be employed, the effect of maintaining the colloid in the soluble or aqueous state is the same, in a more delicate degree; for in this case the suspending agent is volatile, and the colloid may be separated from the water, not only by the neutralisation of the combining intermediate agent or the dilution of it in water, but by the mere escape of it in the gaseous condition.

*Experiment.*—Here is a solution of blood in which the fibrine is held aqueous by the mere addition of ammonia at the moment of the abstraction of the blood from the body. This blood, carefully sealed up, may remain fluid for years.

*Experiment.*—Here is another specimen of this same blood held fluid originally by ammonia. It has since been spread over a wide surface, and exposed freely to the air, so as to allow the ammonia to volatilise. The result is that with the escape of the combining link, which in this instance was volatile, the fibrine has separated from the water and become pectous.

But—and the facts I am about to relate make the demonstration still more perfect—the aqueous condition of a colloidal fluid in which the affinity between itself and water is held by a very slight bond of connexion—as, for instance, in the fibrine of the blood—may be maintained by even simpler physical processes than the addition of a salt or analogous body.

*Experiment.*—I took blood fresh from the vessels of an animal, and enclosed it in a tube exposed to extreme cold, after the manner devised by Hunter. Before the pectous change in its fibrine was possible the blood was frozen. Now, the pectous

state was suspended because the combining water, which would have escaped as vapour had the blood been drawn in an open warm air, remained suspended for an hour. The blood then was thawed; it became fluid; and from the fluid it passed into the pectous condition.

*Experiment.*—I tied up blood in a portion of vein in an animal just dead, and at once conveyed that vein under mercury, so as to subject the blood to a pressure of fourteen inches of mercury. Thus I left the vein for twenty hours; then I removed it, let out the contained blood in the aqueous form, and observed that thus liberated its fibrine became pectous in four minutes.

In this last instance the water was condensed and fixed by pressure alone. It is thus, I believe, in the living animal, that the purer colloid fibrine is held combined with the water in the blood; it is thus, I believe, that in the nervous matter the combination is sustained. But in these latter cases, as the pressure is much less than I put on in my experiment, the pectous change is far more readily developed.

*Experiment.*—Yet one more experiment completes this part of my subject. If through a colloidal solution I pass a feeble voltaic current, and so decompose the water, the colloid will assume the pectous form. Here is this proved. I have put into a cup a solution of albumen, and have passed through it a current from a small two-cell battery. With the slow decomposition of the water into its elementary gases, the colloid has been separated, as you will see, in the pectous form. As it is distributed in the tube in fine filaments, between which the liberated gases have infiltrated, it looks like a beautiful web of areolar tissue. The colloid separates at the positive pole.

The capability of a colloid to retain the aqueous state, in which alone it is active, and I may say vital, varies exceedingly in different forms of colloid. In fibrine the condition is so refined the merest accident may suffice to break the aqueous connexion and permit the molecular cohesive attraction. The escape of water in the form of vapour will suffice. A mechanical agitation, an electrical agitation, the agitation excited by heat—these all, even in a minor degree, will suffice to induce the same effect. The mere introduction of a nucleus or point round which the particles of the colloid may begin to adhere will lead to precisely the same event. The aqueous colloid of the nervous matter is equally, or even more sensitive.

In other colloids, the adhesion between the water and the colloid being closer, owing to the presence of a firmer combining link, influences more decisive are required to induce the pectous phenomenon. Albumen is an example of this form of colloidal matter.

In other colloid states the adhesion with the water may be so strongly cemented that the colloid may follow the action of water itself in becoming fluid by heat and solid by cold. Gelatine is an example of this condition of colloidal matter.

The rule is simple by which colloids in the aqueous form maintain the active form under ordinary conditions. A soluble substance acting after the manner of a salt sustains the fluidity. Hence a colloid becomes more and more inclined to assume the pectous change the more completely it is dialysed from crystalloidal matter, and the more purely it approaches the absolute colloidal character.

*Experiment.—Dialysing Albumen.*—Here, for example, is a solution of albumen. That solution is in the perfect aqueous form, and is steadily held so by the presence in it of a combining body acting as a salt. There is a specimen of the same albumen, but it has been in a dialyser, dialysing with a weak solution of hydrochloric acid. The substance that held the colloid aqueous has thus been removed, and the result is that the albumen on the membrane is in the pectous arrangement of colloidal matter.

The same changes extend to all similar substances—to the globuline of the lens, to myosine of muscle, to a membrane.

The evidence of the cause of the assumption of the pectous form from the aqueous is thus, I think, perfect. There is no experimental break in the chain of evidence. From the process of instant change from vibration or contact in the purest colloids, to the slowest separation in the least pure, all the facts prove the truth of the proposition, and establish unity of design.

The physical character of the pectous change is as yet obscurely defined. We have in it a certain analogy to crystallisation, but no distinctness of detail. That which we observe in the colloidal pectous body is that it is no longer fluent; that it contracts with extrusion of water; that it solidifies with loss of volume and loss of weight; and that in its final stage of solidity it presents what may be designated the amorphous form of matter. To what extent the extrusion of matter may be carried is shown by the fact that I once found two hundred grains of pectous fibrine reduced by it to six grains.

In all cases with the shrinking and thickening of the pectous colloid there is opacity and diminished elasticity. In membranes there is rapid dryness, and with that a linear puckering of any substances that may lie in contact with it. This is well illustrated in the cornea of the eye after death.

In the presence of oxygen and water the tendency of the colloid, in its pectous condition, is to pass into the crystalloidal form of matter by decomposition and rearrangement of the elementary parts around the basic carbon. In this manner all the structure may pass into a saline form, which will then fix water, be resolved in solution, and carried away.

In the animal body there is probably only one colloidal form of matter primitively. The evidence all points to this conclusion, and suggests that every apparent difference is due simply to a different mode of combination of the primary colloid with water. In what may be called the living structures of the body the water is all colloidal; and in the form of colloid exists all the matter in nature that is capable of assuming the organised motion which we denominate life. In the brain it is the colloidal matter that is impressed by external vibration and on which impressions are fixed. A condensed colloidal structure, the colloidal lens, is used for the refraction of the wave of light. In the muscle the motor mechanism is constructed of colloidal matter. The blood is a store of colloidal fluid. A membrane is not a mere supporter of organs, but is an active colloidal sheet possessing the property of allowing water and substances that fix water to pass throught it, but to detain all that is like itself colloidal: in this way colloidal forms are constructed into organic textures.

But that the matter thus generally diffused may be susceptible of motion it must remain in the aqueous state. Whenever it is most vital it is most purely aqueous. In combination with saline or fatty matter it remains in some structures in a comparatively passive state. In the pectous form it is dead, and waits either to be resolved or digested into the aqueous condition, or under the influence of oxygen to be broken up, rearranged on a new elementary plan in the crystalloidal form, and conveyed with the water from the organism. Thus it exists in the sarcous element of muscle. It has served its purpose, and is ready to be resolved into the nitrogenous salt urea.

In a few instances the pectous condition of matter remains in the body fulfilling a useful purpose even as dead matter. In the hair, in the nails, in the epidermis, it is present for such intention.

(*To be continued.*)

## THE WAY OF ESTIMATING THE SANITARY CONDITION OF COMMUNITIES AND THE COMPARATIVE SALUBRITY OF TOWNS.

By HENRY LETHEBY, M.B.,
President of the Society of Medical Officers of Health, etc.

The address, of which the following is an abstract, was delivered at the opening of the session 1874-75 of the Society of Medical Officers of Health, on Saturday, October 17.

The important problem of estimating the comparative salubrity of towns and populous places is not so easily accomplished as is generally supposed. The common method of estimating it by the death-rate is most fallacious. In proof of which a number of authorities were cited, and reference was made to the disturbing influences of migration, rates of births to deaths, and the varying proportion of the two sexes in different localities. When there is a notable migration of young adults from country to town, as is generally the case, the death-rate of the rural districts from which the young of both sexes had been drafted would be unduly augmented, while the town that received them without the vital cost of rearing them would have a proportionately low death-rate. The population of London, as determined by the Census of 1851, was 2,362,236. In 1861 it amounted to 2,803,989 persons; and at the last Census in 1871 it was 3,254,260. So that in twenty years the total increase was

892,024 persons, or nearly 38 per cent. The natural increase in that time, as estimated by the excess of births over deaths, was only 595,111, or only about 25 per cent. The difference, therefore—namely, 296,923, or nearly 13 per cent.—was referable to the additions made to the population by the entrance into it of fresh lives; and that was altogether independent of the large number of such lives which took the place of those who, from sickness or other cause, left the metropolis to live and die elsewhere. All those were young healthy lives, at perhaps an average age of twenty, and the cost of producing them must have been considerable. In London the death-rate of infants was so large that not more, and probably much less, that 60 out of every 100 born lived to be twenty years old. At this rate the 296,923 young adults who were added to the population of London during the last twenty years would, if they had been produced here, have cost 494,872 births and 197,949 deaths—not one of which had appeared upon the registers of the metropolis. It was hardly possible to compute the exact number of young persons who, in addition to the preceding, had come to London and taken the place of the sick and infirm who had left it; but an examination of the census would show that nearly half the population of London were aliens, and had migrated to it from the provinces. Probably the net immigration during the ten years from 1851 to 1861 amounted to 31,820 persons per annum, or rather more than double the annual number of young recruits (13,356), which, as before said, went to the increase of the population. Assuming that they were at an average age of twenty, they would, if they had been produced in London, have cost annually 53,030 births and 21,213 deaths. Some of those or their equivalents might have appeared upon the registers, but it was easy to perceive how the vigour as well as the numerical strength of London was maintained without the cost of infant life; and that which was a gain to London was necessarily a loss to other places.

Dr. Letheby proceeded to show by an estimation of the proportion of males and females at different ages of the population of London that there was a very large transfer of young adult lives from the country to the town, and that the proportion of children was relatively small, being in the city 263 per 1000 as against 356 for all England. In the City proper young adult life was as high as 415 per 1000, and in London generally 360 per 1000, whereas in England and Wales it was but 335 per 1000. In order to show that infirm adults migrate to a large extent back to the country when their labour proves unremunerative, Dr. Letheby quoted statistics to show that at fifty-five and upwards the number for the metropolis was only 89 per 1000, as against 105 for all England. There is also an unusually large proportion of females in the population of London. From ten to twenty-five for males, and ten to thirty-five for females, the death-rate in London is much below the average, whereas for all other ages the metropolitan death-rate is much greater than in all England—which shows that young persons leave London when sickness oppresses them.

The disease which most strikingly exemplified that was phthisis—a disease which not only attacked persons in the prime of life, but also gave them ample opportunity for removal to the country. Dr. Letheby therefore concluded that the gain to London by such migration was threefold—in the first place the population was constantly receiving a large number of young adult lives without the vital cost of producing them; in the second place, it gained by the substitution of such lives for the weak and ailing; and, in the third place, it gained by the fusion of such lives, of high value, with the general mass of the population of comparatively low value; for at the age of twenty the death-rate was only about 7 per 1000, whereas that of the general population was more than 24 per 1000. A like condition of things prevailed in all the cities and large towns of the kingdom; and it so seriously disturbed the death-rate, as usually calculated, as to make it no longer expressive of facts. In those cases where sick persons resorted to public hospitals or to the favourite seaside places of England, the disturbance was still greater. There was a good example of that in the Western Division of the City of London, where St. Bartholomew's Hospital is situated; for, according to the returns of the Registrar-General, the average death-rate of that district was from 45 to 50 per 1000, whereas the true death-rate was from 27 to 29 per 1000. In like manner the death-rates of Whitechapel, of Islington, and of other districts of London were disturbed by the presence of large hospitals. Another circumstance which destroyed the sanitary value of a death-rate was the birth-rate. That was illustrated by the fact that wherever the birth-rate was high the death-rate was high also; and that was observed not only among the nations of Europe, but also among the registration counties and districts of England. France, with a birth-rate of only 26·26 per 1000 of the population, had a death-rate of only 23·63 per 1000; but Austria, with a birth-rate of 39·86 per 1000, had a death-rate of 30·34. Spain, Italy, and Prussia exhibited the same general relation; and in England the registration divisions, the counties, and the towns showed a similar condition of things. Taking, for example, the ten registration divisions of England and Wales, it would be noticed that the birth-rates and the death-rates were closely comparable. Beginning with the south-western counties, where the birth-rate was only 32 per 1000 of the population and the death-rate less than 20 per 1000, it would be noticed that as we passed on in the order of increase, the birth-rates and death-rates advanced together; so that when they came to the last of the series, the north-western counties, where the birth-rate was nearly 39 per 1000, the death-rate was 26·3.

As individual examples the Ridings of Yorkshire might be taken as good illustrations. In the North Riding the birth-rate was 33·9 per 1000, and the death-rate 20·5; in the East Riding the numbers were 34·5 and 22·7; and in the West Riding they were 38·1 and 24·9. It was not possible, without considerable labour, to compare the birth-rates and death-rates of the town and rural districts of England; but Dr. Stark had done this for Scotland, and the results were remarkably instructive; for in the principal towns of Scotland, where the population exceeded 25,000, the average birth-rate was 38·73 per 1000, and the death-rate 28·25. In the large towns, with a population of from 10,000 to 20,000 persons, the birth-rate is 38·07 and the death-rate 24·57; in the smaller towns the numbers are 36·44 and 21·24; and in the rural districts they are 31·49 and 16·95. Dr. Stark believes that a high birth-rate is an effort of nature to compensate for the excessive waste of life in large towns; and the Registrar-General appears to hold to a like opinion, for he says that "wherever, from the combined effects of intemperance, dirt, and bad ventilation and drainage, the mortality is greatest, there also the ratio of births to the population is highest." But Dr. Letheby reverses the argument, and says, with Mr. Andrew Watt, of Montreal, "that wheresoever the ratio of births to the population is highest, there also the mortality is greatest, and, the conditions being equal, will be in proportion to the birth-rate." Dr. Letheby has already expressed this opinion in one of his annual reports of the sanitary condition of the City of London; and the Registrar-General has replied to it in a memorandum of the "Significance of Rates of Mortality"; but Dr. Letheby complains that the document is obscure, and does not touch the question at issue, but raises a new question as to the effect of an excess of births over deaths, saying that "the mortality of a population with an excess of births over deaths is lower than the mortality of a stationary population, where the births and deaths are equal."

If the registration counties of England be arranged in the order of birth-rates, it will be found not only that the death-rates advance with the birth-rates, but also that the excess of births over deaths becomes proportionally increased. The explanation of all this is to be found in the excessive mortality of infants. In all England and Wales, where the average birth-rate is 35·2 per 1000 of the population, the deaths of children under five years of age amount to 40 per cent. of the total mortality. If this were not so, the natural rate of increase of the population would be prodigious. At present the annual excess of births over deaths in England and Wales is 12·8 per 1000 of the population; but suppose that it was 18 per 1000, as it is in two of the registration counties of England, the population would be doubled about every forty years; so that the 22,712,266 of the Census of 1871 would become rather more than 45,000,000 in forty years and nearly 91,000,000 in eighty years. Happily this cannot happen; for, notwithstanding the views of the Registrar-General, the birth-rate is the controlling element of the death-rate; and before the relative health of different communities can be compared, the apparent rate of mortality must be corrected for the rate of increase by births as well as by immigration. Another circumstance which seriously interferes with the value of the death-rates as

estimated in the usual way is the relative proportion of males and females in the population; for, as their death-rates are different (23·3 and 21·5 per 1000 respectively), the common death-rate must necessarily be influenced by it. In infancy and childhood the death-rate of males is nearly 10 per 1000 above that of females; so that in large cities, where women and children abound, the death-rate must be under the normal proportion. The proportion of the sexes, the number of births, the vicissitudes of climates and seasons, calamitous events, and other modifying circumstances must be carefully examined. Until this is done, the death-rate, as usually calculated, and ostentatiously paraded as an indication of salubrity, is not merely ridiculous, but threatens, as Mr. Rumsey says, to become a public nuisance. What more striking proof, indeed, can we have of the untrustworthiness of these so-called "death-rates" as evidences of sanitary progress than the remarkable fact that they remain unaltered, and, as it would seem, unaffected by such progress? Look at the enormously large amount of sanitary work which has been accomplished in London and in the large towns of England during the last twenty years; yet the death-rates, as calculated in the usual way, remain the same. In the City of London during the last three decades the death-rates were 25·29, 24·94, and 25·11 per 1000 of the population. In the whole metropolis they were 24·48, 23·86, and 24·14 per 1000. In the large towns and town districts of England they were 24·45, 23·52, and 25 per 1000; and in the whole of England they were 22·64, 22·11, and 22·69,—differences which are insignificant when we consider how much has been done to improve the sanitary condition of the country.

It is manifest, therefore, that the death-rates, as usually calculated, are not expressive of facts, and cannot be accepted as reliable exponents of the sanitary condition of a place. In conclusion, Dr. Letheby referred to many of the circumstances that should be considered when estimating the comparative salubrity of any locality. The sickness and mortality of young children are the signs of home influence; wholesome or unwholesome habits give rise to a corresponding variation among adults. The sanitary condition of a population can alone be properly calculated by a reference to the statistics of disease, and comparing these with the mortality tables, besides attending to other modifying influences, such as age, sex, migration, climate, season, etc.

## ORIGINAL COMMUNICATIONS.

# ON THE THERAPEUTIC VALUE OF SOFT WATER IN THE TREATMENT OF URINARY CALCULI AND INDIGESTION.

By JOHN C. MURRAY, M.D.

(*Concluded from page* 441.)

For seventeen years that I perseveringly attempted the solution of stone with hard water, I experienced the same disappointment which, in the practice of physicians in London and other hard-water areas, has doubtless prevented chemical solvents from being of service, the quantity of mineral acid which would agree with the stomach being often just sufficient to neutralise the earthy salts daily consumed in the water, or at least not adequate to check the tendency to alkaluria. I have frequently, indeed, thought they did harm by causing some of the lime and magnesia to enter the blood in solution, which else might have passed through the bowels. Alkalies also frequently increase the irritation of the stomach, and cause a greater formation of acid, as explained by Professor Trousseau. For the last thirty months I have ordered every bilious or calculous patient to use rain or distilled water, and the result has been so successful that I have a respectful fear of detailing the cases from dread of scepticism, and am therefore the more anxious that the medical treatment of calculi should be undertaken by one or more disinterested physicians, as I have suggested, in the wards of a hospital, so that the cases may be watched by the profession. I may, however, state that, as the result of this practice, I have a nice little collection of water-worn calculi, and that I have been disappointed of many more, some having been passed while bathing (as attested by the sharp forcing pain, and lacerated, bleeding urethra), some in the water-closet or by the wayside, a very interesting case by crumbling to powder on a warm mantelpiece, and not a few by patients at a distance neglecting their own interests and that of science by not forwarding them.

Even those who are unbelievers in the reduction of calculi by means of solvents are in no slight degree bound to support a crucial test as combined with distilled water—first, in the interests of that too numerous class who have renal calculi; second, as operation for stone has to be repeated once in about six times, that the surgeon may tell the patient how to prevent a recurrence; third, when lithotrity is performed to assist in washing away the detritus.

There ought to be no lack of interest in this subject, for during the past year its importance has been emphasised by the fact that an ounce of lime has put *hors de vie* one of the most marked men in the world's history. Permit me to glance at the late Emperor Napoleon's case as one in point. The frequent and heroic courses of Vichy water and other alkaline waters which the late Emperor took, probably under the advice or impression that the pains which he frequently suffered were of rheumatic, and not, as they seem to have been, of dyspeptic and calculous origin, would have a chemical tendency to cause the deposit which formed the nucleus of his calculus—viz., amorphous phosphate of lime,—and surround it by the crystalline phosphate. When he came to Chislehurst, the chalk water there, together with the irritation of the slowly forming stone, would be sufficient to decompose urea and cause rapid deposit of the triple phosphate, lime and mucus having especial tendency to decompose urea. Had the Emperor gone to reside in a part where the water was soft, such as where the Empress's Scottish ancestors belonged, or used rain or distilled water with mineral acids, I think he might have lived, and possibly once more have sat upon the throne of France, and that the calculus would have slowly decreased in size, becoming at last sufficiently small to pass *per via naturales*, as the post-mortem appearances seemed to indicate that many previous ones had done.

To prescribe soft or distilled water in cases of stone or gravel is somewhat new in medicine, and to order it in indigestion and derangement of the liver is still more novel, at least out of London, although the mode of life may be accumulating in the system the elements of biliary or renal calculi which are being eliminated with daily increasing difficulty; yet the best time for treatment is obviously before the stomach, liver, and kidneys become seriously impaired. The great benefit which is often derived from a change of residence in stomach and liver complaints is probably from change of water rather than of air. Air being so diffusible, it cannot be much different in one part of the country from another, but the water is not alike in any two places. I therefore hope that before long we shall have a tabulated statement of the qualities of the drinking-water in the various health resorts, so that we may know where to send hepatic and calculous patients for their advantage. At present there is too much haphazard in the matter of recommending a change. Generally, if a place has fewer wet days, a quarter per cent. less carbonic acid, or a suspicion of more ozone than another, it is preferred, without taking into account that from the five pounds of water daily used the patient may take fever and die, or contract the nucleus of a calculus and linger only to suffer a life of misery.

Few are more sensitive than I am to the impropriety of raising unnecessary alarms, for I firmly believe it an excellent rule (preventive medicine notwithstanding) to eschew medicine unless when really ill. To this wholesome rule, however, cases of stone form a frequent exception. A child, adolescent, or woman, for example, may have a stone gradually enlarging without being aware of it; whereas a man of forty or upwards, being cognisant of liability, is alive, if not to the first, at least to early symptoms, and generally seeks advice.

Deeming that the prevention and solvent treatment of calculi demand more careful and extended practical attention than the subject has yet received, I beg respectfully to press upon the profession the great importance of this line of study, trusting that the authors of our future text-books on urinary pathology will devote more time and space to this too neglected department of our art; a sub-division, moreover, which yearly becomes of more consequence as we further depart from rural habits and live more at the call of the telegraph and upon the rail. For railway travelling, it has been observed, tends to induce urinary disease.

But if the circumstances of our being be different from those of our ancestors, we are also possessed of more chemical and physiological knowledge calculated to counteract the evil

effects of dense population and trade competition; and if we do not apply that knowledge at least as soon as the need for it becomes apparent, we would deserve to suffer the punishment, provided always that it fell only upon the guilty. Our mode of living in 1874 does not permit all of us to eat and drink what we might choose, but too often only when and what is most convenient, or will best suit us. If our system gets out of order, it is an indication that we are living in error; and the chemistry of this year of grace would deserve opprobrium were it incapable of showing in what that error consisted. I fear, however, that the fault does not lie with chemistry, but with medicine. Our bodies are chemical laboratories, and every physician, especially those who lead in urology, ought to be expert chemists in order to remove our practice from the field of empiricism, and render it sufficiently plain for those who, in consequence of lacking time for study—country practitioners, for example,—may be satisfied with the opinions of others, and in a position to treat their trusting patients in a rational manner. Trousseau, in his lectures at the Hôtel-Dieu, said that 299 physicians in 300 were very bad chemists, and immediately after gave a sufficient reason for disregarding chemistry in medicine by stating that "therapeutical action does not admit of chemical explanation: it is essentially vital or physiological." We must be upon our guard against this convenient way of shelving our chemical books. I confess to being unfortunately one of the 299 who have forgotten most of my chemistry, and therefore cannot speak oracularly upon chemical decompositions within the body, but the principle, being supported in practice, must be essentially right; and be it observed, moreover, that animal chemists are not content with a theory unless they can produce the same compounds in the laboratory that are formed in the organism. Urine and all the fluids of the body have chemical reactions, and however much vital or physiological action, or albumen taking the place of an acid, may accelerate or retard chemical combinations and decompositions, they will, nevertheless, take place. It was proved by Brande in 1808 that urine can be rendered acid or alkaline by medicine, and being only a secretion from a vital fluid, and not itself vital, chemistry, in regard to it at least, is paramount over "vital action"; hence the sooner and more diligently we return to our chemical studies in urinary complaints the better.

There is an imminent risk of calculus where the urine shows frequent deposits; if they consist of uric acid or urates, it indicates (1) that the blood is insufficiently alkaline, (2) that the urine is too acid, and (3) that there is a deficiency of water. We should then give half-drachm to one-drachm doses of bicarbonate, citrate, or acetate of potash four times daily with twenty ounces of soft water, and direct that everything which tends to form or cause deposition of uric acid or urates be avoided, such as much animal food, fat, pastry, sugar, acid fruits, over-eating, alcohol in any form, sulphur (or articles rich in it, as peas, beans, eggs, cabbage, mustard); also that the patient take more exercise in order to oxidise the uric acid and to encourage perspiration and consequent elimination by the skin of carbonic, uric, butyric, and lactic acids. When oxalate of lime and phosphates are precipitated as gravel, the urine is generally plentiful, and opposite directions are, as a rule, appropriate. For example, the more animal food which is eaten the better; laziness is an advantage; a little whisky or brandy is admissible; mineral acids must be taken; and a lesser quantity of soft water will suffice. I have not found nitro-muriatic acid fail in restoring the urine to an acid state. Even in ammonæmiæ with subacute cystitis and phosphatic renal calculi, it has sufficed, when the food was prepared with distilled water, and also about three pints drank in twenty-four hours so as to maintain diuresis.

The symptoms of stone having already formed are generally so evident that sounding, even when applicable, is unnecessary, except to ascertain its size. The best indications for treatment are then, as in all urinary complaints, afforded by the frequent use of the microscope, for different layers in a calculus often require diverse treatment. But while studying appropriate remedies the dissolving process may still be going on, for "water will hard marble wear away," and copious draughts of soft or distilled water will have the same effects upon a stone. Even without medicine it will produce an impression upon a calculus of any kind, and will preserve in solution and wash away the material which would otherwise accumulate upon it; and, what is very important, it will improve the health. Soft water, even a deluge of it, is rarely, if ever, otherwise than beneficial. It dissolves the nutritive matter out of the food, thus supplying the body with aliment which would otherwise pass through the bowels undissolved or enter the circulation in a state less capable of healthy assimilation. The advantage which is derived from the free use of soft or distilled water in improved elasticity of frame and diminution of fat in the obese is a recommendation in favour of diluents. If the nuclei of calculi were examined when recent it would probably be found that microscopic crystals of oxalate of lime formed the nucleoli of 20 per cent., uric acid 70 per cent., and biurate of lime and biurate of magnesia nearly the remaining 10 per cent. If the urine were preserved in an unsaturated state by sufficient soft water, no nucleus would form, or if a deposit did occur upon a particle of mucus, it would be washed away by the frequent renewal of the urine passing over it.

I have said nothing relative to the solution of stone by injection with or without galvanism, because I think that the less the bladder and prostate are irritated by instruments the better, for even the passing of a catheter, as in Baron Dupin's case, may cause death. But where a triple phosphate or oxalate of lime calculus is causing serious mucous irritation, the bladder might advantageously be subjected to a four hours' irrigation with nitro-muriatic acid in distilled water at blood heat, in order to begin the treatment, and check the formation of mucus, pus, and the decomposition of urea.

I am much pleased to find that since I first penned this paper, in January, 1873, Dr. Jno. Gardner, of London, has published an interesting volume on "Longevity," in which he recommends the free use of distilled water for preventing disease and prolonging life; and that Mr. Cadge has within the last few weeks given to the profession recent and extensive statistics, which will be of great service in this line of study.

I firmly believe that we may reply affirmatively to Sir Henry Thompson's question in "The Preventive Treatment of Calculous Disease"—"Can we do anything to prevent the formation of stone in the urinary passages?" and think with Dr. Hassall "that the very circumstance of the occurrence of stone affords a convincing proof of the incompleteness of the present state of medical science"; and trust with Dr. Harley "that the day is not far distant when a patient with a stone of any size in his bladder will be looked upon in the light of a clinical curiosity."

The object of this paper is to keep the solvent mode of treatment before the profession, in order that that day may be brought more near.

Newcastle-on-Tyne.

## INDIAN RINGWORM AND ITS TREATMENT BY GOA POWDER.

By J. FAYRER, M.D., C.S.I.

Europeans when in India, and occasionally after their return to Europe, are liable to certain troublesome eruptions on the skin of the trunk and extremities, which, becoming chronic, are not only the source of considerable annoyance, but often somewhat tedious in yielding to treatment.

One variety of the eruptions I refer to—commonly described as ringworm—assumes the form of reddish slightly raised spots, which rapidly spread as rings, encircling patches of sound skin, varying in size from a split-pea to that of a shilling or even larger, with a slightly furfuraceous desquamation, and giving rise to much irritation and itching. They sometimes remain few and far between, but are apt to spread over all parts of the body or limbs.

This eruption is due either to herpes or tinea circinatus, but probably, in many cases, to a combination of both these; the initiatory patch of furfuraceous herpes circinatus becoming a congenial nidus for the subsequent development of the trichophyton of the tinea. Such, I would suggest, is the pathology of the eruption generally seen and spoken of as ringworm in India, though it is probable that other forms of eruption, such as lichen circumscriptus, erythema, and psoriasis guttata, are at times included under the same designation.

Another form of eruption to which I would allude is probably rather to be referred to chloasma. It affects the groins, the inner sides of the thighs, and those delicate surfaces of the integument that are prone to be the seat of moisture, as well as other parts of the integument. It generally makes its appearance, and is most troublesome, during the hot and

damp seasons. It is also occasionally associated with tinea, which appears on its margin, or separately on other parts of the body. The surface of those portions of the integument which are moistened and irritated by acrid secretion have a consequent accumulation of epidermic scales, which form a favourable nidus for the development of the sporules of the microsporon furfurans, the result being patches of dark-coloured slightly elevated and softened integument, often with red margins, on those parts where surfaces come in contact, and similar, though dry, patches on other and more exposed parts of the body, such as on the chest, shoulders, neck, etc. They sometimes cause uneasiness with a sense of dull pain, as though the skin had been bruised; and if irritated by friction in walking, or by the dress, they may become the source of considerable suffering and annoyance.

Other affections of the skin exist in India, and are, no doubt, more or less modified by climate; but I allude now especially to two—one the so-called ringworm, and the other, or that which I have referred to (chloasma), but which, no doubt, also partakes more or less of the nature of intertrigo in which it commences, —with the object of calling attention to the value of a native remedy in their treatment. Ringworm ointments and lotions abound in India, and are all more or less efficacious. The biniodide of mercury ointment; solutions of borax; bichloride of mercury combined with sulphur; sulphuric, nitric, acetic, and carbolic acids; hydrochlorate of ammonia; and a variety of other drugs, in and out of the Pharmacopœia, have all enjoyed or enjoy more or less reputation for efficacy in the treatment of these troublesome affections, but they frequently fail and disappoint the patient.

The remedy that I have found to be most certainly and rapidly effective is the solution in common vinegar or lemon-juice of Goa powder. This rarely fails to effect complete removal of the disease after two or three applications repeated daily.

The mode of application is to dissolve a few grains of the powder in common vinegar or lemon-juice to about the consistency of cream, and then paint the solution over the eruption and for a little distance beyond its margin on to the sound skin. It causes no pain at first, but in the course of a few hours there is a sensation of a dull heavy nature, as though the skin had been bruised, the eruption becoming white, whilst the surrounding skin is stained of a dark colour. The sense of uneasiness, however, soon passes away, and the integument reassumes its natural character; all traces of the disease disappear at the same time. Should any vestiges of the eruption remain, or any indications of its return appear, a fresh application should be made. In a few days the dark discoloration of the skin begins to fade, gradually merging into the normal tint. At the same time a change takes place in the eruption, which gradually regains the natural colour of the skin; and by the time that the discoloration caused by the powder has disappeared, that of the eruption has also passed away, and the patient is well. Of course, it cannot be expected that these favourable results will always follow immediately. In chronic cases there is more obstinacy, and several repetitions of the application may be needed; but in recent examples the result will generally be rapidly favourable.

The powder is efficacious also in the other eruption affecting the groins and other parts of the body, to which I have referred. In this it is especially necessary that most perfect cleanliness and thorough drying after bathing should be carefully attended to. It is probable that the removal of this form of disease may not be so speedy as in the case of the ringworm; but generally it will yield sooner or later to the remedy.

As the eruptions I have described are probably chiefly due to the presence of a parasite grafted on a previously diseased condition of the skin, the efficacy of the Goa powder evidently lies in its parasiticidal properties, one or two applications completely destroying the germs, and probably acting also as a healthy stimulant to the disordered condition of the skin that preceded and encouraged the growth and development of the parasite; it soon restores the part to health, and, it has appeared to me, with more certainty than any of the remedies hitherto in use. I would suggest the more extended use of this powder, as I am not aware that it has as yet become very generally known.

I regret that I am unable to state precisely what Goa powder consists of, but believe it to be a production of the vegetable kingdom. It is a fine yellowish powder without smell or taste, and under the microscope presenting no marks of structure. It partially dissolves in vinegar, lemon-juice, and alcohol, and may be thus applied. It is sold by the chemists in Calcutta and Bombay in small phials, and is known there by the above name; also under the name of "Chrysatobine." Mr. D. S. Kemp, in the *Pharmaceutical Journal*, p. 345, 1864, says—"Orchella weed (*Lichen Orcella*) is exported in large quantity from the Coast of Africa, north of Mozambique, to India, and it seems to me that that production is the most probable source of Goa powder."

There is another powder very like it, which is equally efficacious, and is known as "Poh di Bahia"—apparently a trivial name of Malay derivation. I sought information as to the nature and origin of Goa powder from Dr. Waring—the highest authority on Indian materia medica,—but he was unable to enlighten me, and referred me to Mr. Hanbury, F.R.S., who kindly gave me the following reference:—"The composition as well as the place of manufacture of Goa powder seem alike secrets. The powder is much like the ground lichen known as *cudbear*. As to its chemical composition, all that is known may be found in the *Pharmaceutical Journal*, vol. v. (1864), p. 345."

Whatever it may be, there can be no doubt of its efficacy in the treatment of the skin diseases I have alluded to, and I should think most probably it might be useful in others also. I venture therefore to commend it to the notice of dermatologists, and to hope that it may be imported into this country, and that its efficacy may be further tested in the treatment of skin diseases.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## LONDON HOSPITAL.

### A SERIES OF CASES ILLUSTRATIVE OF CEREBRAL PATHOLOGY: CASES OF INTRACRANIAL TUMOUR.

(*Continued from page* 442.)

(Under the care of Dr. HUGHLINGS-JACKSON.)

*Case* 15.—*Convulsion limited to the Right Arm, followed by Paralysis of that Arm—Tumour of Hinder Part of Uppermost Frontal Convolution—Tumour of Both Lobes of Cerebellum—No Symptoms referable to the Cerebellum.*

The following case is the only one of this series which has been published before; I reprint it from the *Medical Mirror* of September 1, 1869. It is a case of very great interest, as both lobes of the cerebellum were diseased, and because there was paralysis of one arm after a convulsion limited (so the patient said) to that arm. In another case, from the fact that convulsions were very numerous, and nearly always limited to the arm, involving the whole of that limb, I have correctly predicted tumour of the hinder part of the first (*i.e.*, uppermost) convolution. This was a case I saw with Mr. Soutter; it is referred to by Ferrier in his paper in the second volume of Crichton Browne's "West Riding Asylum Reports," page 89. I shall refer to Ferrier's conclusions after the report of the case of Mr. Soutter's patient.

What follows is a *verbatim* reproduction from the *Medical Mirror*. This applies to the footnotes also.

James R., aged 39, was admitted into the London Hospital, April 18, 1868. Ten years ago he was in Guy's Hospital, six weeks after "being run over the head." (There is a cicatrix, of sickle shape, about two inches and a half long, over the right eyebrow.) His present illness began about four weeks ago, with pain in the back and all over his head. Pain was the only symptom complained of at first. Last fortnight has been "off his feed." Two days ago twitching came on in the right hand; it lasted half an hour. He had subsequently two attacks, not lasting so long; no similar sensation in face or leg; has had since incomplete use of the right arm and intense pain in head. No abnormal cardiac or pulmonary sounds. The optic discs are probably whiter than they should be, and their margins are not sufficiently clear. The arteries (*sic*) are slightly tortuous, but the veins are not. Sight and hearing good. The right arm is partially paralysed. He denies that there is any loss of sensation.

Dr. Hughlings-Jackson, being incredulous that there was no paralysis of the leg, got the patient up to walk, but failed to detect anything the matter with the leg. The patient walked well.

April 19th.—Complains very much of violent pain in the back of his head and temples, running over the vertex; speaks of a sensation as if his head were not big enough for its contents; these pains are much aggravated by the slightest movement, or by the attempt to fix the eyes on any object. Has had a slight attack of twitching in the right hand, which lasted about five minutes, between 5 a.m. and 6 a.m.; another similar one at about 11 a.m., but neither seizure lasted long enough to permit of anyone being able to get to him before it was over. Temperature 97°; pulse 60; respirations 24.

20th.—Slept very badly; complains of great pain on the top of the head. He looks as if he had pain in his head; turns his head with difficulty; tongue moist and furred; had some twitching in the right arm, the movement beginning in the hand; bowels open.

23rd.—Sat up about two hours, but had greater pain while doing so.

25th.—Acute pain in head; no delirium; bowels open.

27th.—Still great pain on vertex at back of head; is somewhat obtuse, not being exactly able to appreciate any instructions which are given to him to change his position. Right arm now quite useless. No pain in arm; bowels open; tongue furred; great thirst; no appetite; breath smells sour. The mouth is peculiarly twitched when he replies to a question by spasmodic elevation of one corner.

He died on April 30.

*Autopsy.*—Cerebrum (left lobe): There was a nodule, smooth on surface, apparently under the arachnoid, seemingly the size of an almond. It was situated in the hinder part of the superior frontal convolution. It was afterwards found that this was but the uppermost part of a nodule which was about a cubic inch in size. It was like the other masses in the cerebellar lobes, to be mentioned presently, being made up of greyish dead matter internally, and was vascular, bluish, and succulent-looking externally. It was easily taken out of its bed of a loose puddle of brain. There was softening around it to the upper wall of the lateral ventricle on that side, the hemisphere cut off just above the ventricle disclosing a soft yellow-coloured section. The lateral ventricles were dilated, and were full of turbid fluid. The surface of the left corpus striatum looked rough and sodden. The fornix was soft—almost diffluent. Cerebellum (left lobe): Looking at the upper surface of the cerebellum, the left lobe was found to be softened in its external third. Quite in the outermost part (where the cerebellum was quite diffluent), was a lump, of an irregular shape, partly vascular and partly cheesy; altogether, perhaps, the size of three or four horse-beans. The softening was found to extend from this tumour to about the centre of the lobe. The corpus dentatum was scarcely recognisable. Right lobe: The surface of the tonsil of the right cerebellar lobe was patched for about the size of a split-pea, of a reddish vascular character, and on cutting into the tonsil it was found to be of a dirty milky white, very soft and diffluent, except in its exterior part, where was a mass of cheesy matter, the size of a small walnut. This cheesy matter extended close to the corpus dentatum, which was softened.

In remarking on this case, I shall speak from a medical as well as from a physiological point of view.

When I saw this patient with Mr. Clouting, the first impression I had was that the poor fellow was malingering. Whenever a patient complains of loss of power in one arm, this suspicion always occurs to me. But it is only a suspicion, for I am convinced that in a very few cases the arm may be the only part perceptibly paralysed from disease of the brain.(a) I soon concluded that the palsy in the patient I was examining was real, because the manner of its onset was, so to speak, an orthodox manner of onset. We frequently see hemiplegia following fits of spasm beginning in the hand of the side afterwards paralysed. A few months ago I witnessed a convulsion (it lasted ten minutes), in which the right arm and right side of the face were the only parts affected. In this case the arm was powerless—quite limp, falling forward when the patient stooped—after the spasm ceased.

I have said that palsy of one arm is rare—excluding, of course, injuries, tumours, etc., of the nerves from the cord to the arm. It is not very rare to find palsy of the arm only in a patient who *has had* palsy of the leg. We know that in hemiplegia the leg usually recovers faster than the arm does, and the leg may have quite recovered when the arm remains at least so far palsied as to be useless.

But I never declare a patient whose arm is palsied to have no palsy of the leg unless I see him walk. If he seems to move both legs well and equally in bed, I admit that there must be little palsy, but I dare not say there is none after such imperfect tests as can be applied in bed. It will frequently happen that on getting a patient out of bed who is said to have palsy of the arm only, his gait shows the leg of the same side to be obviously weakened. When we cannot get him up we must not conclude that the leg is all right. If we do, we may, when we obtain autopsies, run into erroneous conclusions, such as, for instance, that the movements of the arm only, and not the leg, were represented in the part of the nervous system we find to be destroyed.

For reasons above stated, I asked my patient to get up. The idea of there being disease of the cerebellum never occurred to me. I looked most carefully for any difference in the legs, because, believing there was disease of the left side of the brain, I expected to find, and had predicted that we should find, at least a little weakness of the right leg. The man had only his nightgown on, and walked on bare boards. I discovered nothing wrong with either of his legs; he walked well. Moreover, he *felt* nothing wrong in them.

Next I put him through a certain manœuvre as a test for malingering. I asked him to stoop, pretending that I wished to examine his spine. He stooped; the right arm fell forwards.(b)

It is quite evident that fourteen days before this man died he had no muscular defect except the continued palsy and occasional spasm of the arm, and these conditions of the limb were clearly due to the nodule(c) we afterwards found in the left cerebral hemisphere.

With regard to the eyes, it is unfortunate that the sight was not accurately tested. There was no obvious defect of sight, but I think it likely that the patient had had slight inflammation of the optic nerves. But if he had been quite blind up to his death, we should not be able to say whether the symptoms were owing to disease of the cerebrum or of the cerebellum. Moreover, if the cerebellum only had been the seat of disease, there would have been no proof that the blindness depended on lack of any quantity of the cerebellar structure, for blindness results from tumours in many parts—probably any part—of the encephalon. Besides (cases in which the optic nervous system is involved or squeezed excepted), the blindness from tumours within the cranium is due to *inflammation* of the optic nerves, and does not come on because any "centre" for sight is destroyed. It would be easy to show essentially the same of that large and varying class of symptoms, which, when severe and acute, constitute what is called "cerebral fever." The presumption is, that this class of symptoms are brought about through the intermediation of the nerves to the bloodvessels, as Brown-Séquard long since insisted on.

(a) I use the vague expression *brain* purposely. I use it because I do not know whether the motor tract or the hemisphere is diseased in these cases When the palsy follows spasm of the limb, I suppose the hemisphere to be the part diseased.

(b) A malingerer usually, for some inexplicable reason, keeps his "paralysed" arm to his side when he stoops. The really paralysed arm—excluding cases where there is rigidity—falls forwards. Then malingerers often pretend to have total loss of sensation in the limb, and as they do not know anatomy, they make the loss of sensation stop abruptly where they suppose the arm has its uppermost limit. There was no loss of sensation in my patient's case.

(c) How this nodule led to the palsy is not a point I can consider in this article. It is to be observed that the palsy was produced, so to speak, through a convulsion. Evidence could be given from other cases to show that palsy so occurring does not depend on *destruction* of part of the cerebral hemisphere, but on secondary changes about the "foreign body" which led to that destruction.

## BIRMINGHAM GENERAL HOSPITAL.

### NOTE ON A CASE OF LEFT HEMIPLEGIA WITH LOSS OF SPEECH OCCURRING IN A LEFT-HANDED PATIENT.

(*Continued from page* 36.)

(Under the care of Dr. JAMES RUSSELL.)

I REFERRED incidentally, in my report of the above-mentioned case (*Medical Times and Gazette*, July 11), to the peculiar condition of the cerebral functions which, in certain cases of disease of the left hemisphere of the brain, renders the patient unable to express himself by spoken or by written language, or even, in extreme cases, by the simplest signs. I might on that occasion have adduced the following case, which occurred

many years ago in my father's practice, as an illustration of the condition just referred to; the full description of which is developed in detail by Dr. Hughlings-Jackson in the paper to which I referred. The case occurred in the person of a gentleman who occupied an important position at the head of a large manufacturing concern. He had suffered amputation for a disease of the knee; had perfectly recovered from the operation, and had returned to business. Some time after (I do not remember how long) he had been subjected to excessive mental labour, coupled with a good deal of worry, in making some large inventory connected with the business, which, when finished, was found to contain errors, and had to be done over again. Just after this he was attacked with hemiplegia, and for a time lost entirely the power of speaking intelligently. For everything he desired to say he had only two words, and always the same words—"List complete." These two words he used on every occasion, and by them he gave expression to every desire. One day, on paying his visit, my father found him in a state of the utmost disturbance, making violent efforts to get some thought understood, but failing entirely to convey his meaning. His wife, being quite unable to furnish the clue so urgently demanded, in great trouble applied to my father for help. After some time my father happily suggested the words "life assurance": his patient's face cleared in an instant, all emotion but one of satisfaction vanished, and it was then recollected that it was about the time when the premium for an insurance on his life had become due.

Let me add another case of a very similar kind, detailed by Hennen in his work on "Military Surgery," p. 305; it possesses additional interest by showing the presence of some remains of the power of intelligent expression, though under special circumstances to be particularly noticed afterwards. An officer had sustained an extensive gunshot fracture of the left parietal bone. Dr. Hennen describes very forcibly the emotion of the sufferer on recognising him, as he had cured him of a wound in the head at the siege of Badajoz, but he had not the power of uttering a word, and could only point to the scar of the former wound. "On the sixth day," says Dr. Hennen, "he grasped my hand with great fervour, looked piteously in my face, and to my inquiries as to his feelings, he uttered audibly, though with much labour, the monosyllable 'Ther,' to which, in the course of the day, he added 'O,' and for the next three days, whenever addressed, he slowly, distinctly, and in a most pathetic tone, repeated the words 'O' 'Ther,' 'O' 'Ther,' as if to prove his powers of pronunciation. I therefore resolved to write to his family, and before doing so I printed in large characters, on a sheet of paper, the following words—'Shall I write to your mother?' It is impossible to describe the illumination of his countenance on reading these talismanic words; he grasped and pressed my hand with warmth, burst into tears, and gave every demonstration of having obtained the boon which he had endeavoured to solicit." The patient ultimately recovered, regaining, according to the account, the power of writing before that of speaking.(a)

In the *Medical Times and Gazette*, November 22, 1844, p. 271, is a case in which a speechless patient is represented as resolutely opposing the operation of bleeding from the arm, but he drew with his finger on the table the figure of a leech, and held up four fingers. After bleeding, he suddenly exclaimed "Now tie up my arm," and rapidly recovered. Here was depression from a blow of the anterior and superior angle of the *right* parietal bone (with possible concussion from *contre-coup* of the corresponding part on the opposite side).

Mr. Guthrie quotes a case by Sir P. Crampton (*Dublin Journal of Medical and Chemical Science*, ii., p. 36), in which, after injury to the parietal bone (probably on the left side, as *right* hemiplegia occurred subsequently from fresh formation of matter in the original wound), the patient was left "with his memory much impaired as to *words*, but not as to *things*."

Now, my own and Dr. Hennen's cases illustrate some points of much importance in reference to the cause of the speechlessness under the circumstances we have been supposing, all of which are enlarged upon by Dr. Jackson. First, the loss of speech in these patients was not due to defect in the mechanism by which the muscles are set in operation in articulate speech. My patient spoke the two words quite distinctly and very frequently, and Dr. Hennen's could say "O Ther" perfectly. Secondly, the patients could carry on *at least* simple processes of thought. My patient fully realised the idea of his life assurance, knew the time for payment was near (perhaps recognised the actual arrival of the time), and had presented to his own mind the consequence to his family of the forfeiture of his policy of assurance at the very time when his life was endangered. Dr. Hennen's patient also knew of his own desire to communicate with his friends, and was aware that his medical attendant could act for him in this respect. Thirdly, whilst quite unable to employ words intelligently in speech (and doubtless in writing, though that is not stated), my patient at once recognised the meaning of spoken words, and Dr. Hennen's of written words. The symbols ordinarily employed in articulate or in written speech aroused in the mind of my patient the ideas they were meant to represent; he had intelligent appreciation of their meaning. It was in the failure of their damaged brains to revive by their own voluntary energy the appropriate symbols for ideas that the speechlessness of both consisted. "Whilst these verbal signs may be *developed* in him by our talking, he cannot *initiate* verbal movements; the possible reproduction is automatic or reflex or involuntary. There is a great difference between his echoing our words and a voluntary production of words for himself."

These words, quoted from Dr. Jackson, give point to my fourth observation. My father's patient did utter a coherent phrase, though it was quite irrelevant to the matter in hand. This sentence, it will be perceived, was one which had doubtless been constantly in the patient's mouth at the time of his attack,—"List complete,"—the inventory which had so overtaxed his brain, and, as his wife believed, had occasioned his illness. Similarly, the "O Ther" (chief part of mother) was a familiar word with Dr. Hennen's patient, and was connected with the emotional part of his nature. This remark illustrates Dr. Jackson's observations upon the difference between intellectual and emotional language. He notices that patients suffering from the cerebral changes we are now supposing, whilst they are entirely unable to utter a phrase or even a word intelligently, will yet use perfectly coherent expressions, not indicative of any intelligently formed desire or intention, but simply as outward manifestations of inward states of feeling, such expressions having nothing to do with the intellect, but only with the emotions; and the remark he justly extends to some other phrases not belonging to the category of the emotions, but yet such as have been frequently in use, and ready to be produced by a slight stimulus. Dr. Jackson gives one or two sentences of some length; others much shorter must have occurred to every observer; and with regard to them it may be remarked that, though on their first production they may happen to have relation to the supposed intent of the patient who utters them, they are often repeated again and again in reply to other questions put immediately after, to which they bear no intelligent relation, at once indicating their automatic nature. With respect to these emotional or automatic utterances, it is noticed as distinctive that they cannot be called up at the patient's will, and that they are more or less habitual, as is the case with the various acquired though often complex movements which constitute the greater part of our physical acts. Indeed, Dr. Jackson notices that, with regard to physical acts themselves, a difference will be often observed in speechless patients corresponding with that above described in respect to intelligent and automatic expression. "In some cases of defect of speech the patient seems to have lost much of his power to do what he is told to do even with those muscles which are not paralysed. Thus, a patient will be unable to put out his tongue when we ask him, although he will use it well in semi-involuntary actions, eating or swallowing. . . . In a few cases the patients do not do things so simple as moving the hands when they are told."

In those singular cases in which, from accident or disease, one language is forgotten whilst another is retained, it is, I suppose, the language not native to the individual which is lost. The well-known case of the man in St. Thomas's Hospital who was found talking Welsh is narrated in Sir A. Cooper's "Lectures," 1824, vol. i., p. 255; and Sir Astley adds another case of a German sugar baker, who lost his English entirely from disease, and could only speak German. A very curious experience of the same kind is mentioned by Dr. Althaus as having happened to himself (*Medical Times and*

(a) It is of course evident that this gentleman was not so profoundly affected as was the patient whose case has just been detailed. The former patient was able to read a short sentence, which is not the case in the condition of brain attending complete loss of speech. To be able to read he must "voluntarily repeat the words internally," which a perfectly speechless patient cannot do.

*Gazette*, vol. i. 1859, p. 313) after a slight degree of poisoning by woorara:—"Although consciousness was not impaired, I had for two minutes perhaps lost my knowledge of the English language, in which I had just conversed with a friend of mine, . . . . and I was obliged to entreat him to speak German to me." Dr. Althaus refers to a similar occurrence as having happened to Sir H. Halford after unusual fatigue in the Hartz Mountains:—"Every German word and phrase deserted his recollection, and it was only after he had taken food and wine, and been some time at rest, that he regained them."

Music and cadence in utterance fall very much under the category of emotional developments, and accordingly may be retained by some speechless patients. However, Mr. Latham (*Lancet*, vol. i. 1849, p. 668) mentions a case in which, after a very severe blow on the head, although the patient recovered quickly, he permanently lost musical ability, having been previously a good musician. He did not attempt the most familiar air, and could not get over more than a single bar when he became confused, and struck into two or three other tunes. But let it be noted particularly, as in accordance with what has been already observed with respect to speech, that though the patient was thus disabled from musical utterance, he still recognised music with which he had previously been familiar.


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# Medical Times and Gazette.

SATURDAY, OCTOBER 24, 1874.


## MR. STANSFELD ON THE CONTAGIOUS DISEASES ACTS.

Nothing more forcibly shows the utter demoralisation of the so-called great Liberal party as the eagerness with which certain of its would-be leaders are following their own devices in search of a cry which will bear them back to power and office. Some inveigh against a State Church, some against the Education Act, some would have us all made sober by Act of Parliament; but it has been left for Mr. Stansfeld to join the cry against the Contagious Diseases Acts. Fortunately, it is not often given us to behold such a spectacle as an ex-Cabinet Minister attacking the upas growth for which he himself is in part responsible, if only by his silence while in the office he so utterly mismanaged. Nevertheless, Mr. Stansfeld has joined the small, foul-mouthed, and coarse-minded party opposed to the Contagious Diseases Acts, and has evinced, by his speech at Bristol and by letters to other quarters, his determination to become the chosen leader of this shameless movement. The speech at Bristol has been Mr. Stansfeld's first important utterance on this subject, and to it we shall mainly direct our attention. His object, with that of his co-disciples, he says, "is to deserve notice; and that he, for one, will try to do so." Accordingly, we shall do our best to fool him to the top of his bent, and give him what notice we can and think he deserves.

It has ever been one of the prime claims of our profession that it is unselfish. Only by perpetual dunning have we obtained the small modicum of sanitary authority enjoyed by the community at large, though clearly the interest of the profession is to heal disease rather than prevent it. So, again, the general support given by it to the Contagious Diseases Acts is founded on a like unselfishness. Moreover, this support rests on the common feelings of a humanity which may not be quite so blatant as that of Mr. Stansfeld and his allies, but which is manifested in a much more practical form than mere words. In the meantime, the working of the Contagious Diseases Acts is limited to certain great naval and military stations, where they are used by Government for the protection of the soldiers and sailors in the public employ; or, as Mr. Stansfeld puts it, "to ascertain whether they (the women) are fit for the market upon which they are to enter, under Government protection and guarantee, and, if they are not fit, then to consign them to a hospital prison, until thus they are rendered fit, in order that they may be sent out with a Government certificate of their fitness." Now, in making such an atrocious statement, Mr. Stansfeld is either wilfully misleading or culpably ignorant. What we repeat Government does, is to take due care of the health of the soldiers and sailors in their service; and in this, if statistics can prove anything, the Acts have been successful. It is simple folly at the present time to talk and think of abolishing prostitution; at best we can but mitigate the evils incident to it, and chiefly we ought to prevent those evils from assailing the guileless and innocent. Who is there among us who cannot recall instances of men bearing in them the evils of a froward youth, becoming husbands and fathers, and transmitting to an innocent posterity those evils which they may fancy or believe to have been completely eradicated? It is for the innocent we claim the protection of these Contagious Diseases Acts. But incidentally they have done much more: they have secured for the unfortunates who come under their sway, shelter, kind treatment, and attention during their illness; they are no longer compelled to pursue their horrid calling, whether well or ill, for during illness they are incapacitated from spreading disease right and left by absolute confinement until recovery. During this period, too, they are brought under influences which could never have reached them under other circumstances, and this with the effect of withdrawing many of them from their calling and of sending them back to their friends. Mr. Stansfeld says that out of 2121 registered women only 533 had been registered the previous year. This he thinks a most damaging fact; but to our way of thinking it is quite the reverse. Again, these Acts have been powerful incidentally in suppressing what is, if possible, a greater evil than public, namely, clandestine prostitution. We could mention military stations which were formerly infamously notorious for this, but dread of being put on the register has effectually put a stop to it among women of any pretence to respectability.

It is exceedingly difficult, professionally speaking, to discuss such diseases with one who evidently knows nothing at all about them. In his speech Mr. Stansfeld talks about the increase of certain forms of disease as counterbalancing the diminution in others. He does not know that a man may get a gonorrhœa from a woman who has none, but only certain forms of what are ordinarily called innocent discharges; and

that it is possible to have a sore on the penis just as one may have a sore on the finger. In his eyes all these forms of disease are alike virulent and deadly with the fearful scourge of syphilis. With such men argument is useless.

We know something by personal inquiry of the working of these laws. It is free to anyone to make, by personal inspection, a comparison between those under the Acts and those who are not, at the Lock Hospital in the Harrow-road. To our mind, which came utterly unbiased to the inquiry, the Acts seem to have been productive of nothing save good as far as the women are concerned, for it is simply nonsense to talk about "outraging the last feeling of womanhood left in them," as Mr. Stansfeld may satisfy himself any day by attending a station surgeon's *levée*. But in the whole of his address Mr. Stansfeld is essentially womanish in his ignorance and carelessness as regards facts. This and other vagaries which have recently characterised the actions of some of our legislators can only apparently be accounted for by a predominating feminine influence; for in Mr. Stansfeld's, as in other cases, we have heard it roundly asserted that "the grey mare was the better horse."

## THE SANITARY CONDITION OF OXFORD.

Having some spare time on our hands during a recent visit to Oxford, we decided to employ it in taking a few notes of the sanitary condition of the city. One would naturally hope that in the first university city in the kingdom one would find perfection in regard to sanitary matters; but inspection speedily discloses the fact that throughout the greater part of the city there has hitherto been gross neglect of the most ordinary sanitary precautions; indeed, with respect to water supply, drainage, and house accommodation for the poor, nothing worse has ever come under our notice either in London or the provinces.

The parts of the city to which our attention was chiefly directed were the densely populated districts of St. Thomas's, St. Ebbe's, and St. Aldate's, which are situated on the banks of the Isis, which here is divided into several branches. Like the streets of ancient towns generally, those of the above-named districts are very narrow and irregularly built, and at their back are numerous narrow courts, crowded with dilapidated, ill-ventilated, dirty, and badly drained dwellings, to which light and air can penetrate only with the utmost difficulty.

It was impossible, in the time we could devote to the work, to visit every court and every house; still, those we did visit were, we believe, a fair sample of the whole. The first place we visited was Norman's-passage, which leads out of the Rewley-road, opposite the London and North-Western Railway Station. This passage opens into a narrow court about thirty yards long, and three and a half or four yards wide, having a row of houses, six in number, on one side, and a high wall on the other. The only provision for drainage is an open gutter, which runs the whole length of the court, the smell from which at the time of our visit was very bad; though as a nuisance it was surpassed by the odour from a structure at the upper end of the court, by courtesy called a water-closet. All the dwellings are in a miserably dilapidated condition, nothing having been done by way of repair, we were informed, for more than two years. Holes in the roofs, damp and dirty walls, stairs and floors of the upper rooms broken and dangerous, ceilings tumbling down, smashed windows, rags and paper doing duty for glass, and doors *minus* latches and locks, were observed in the houses we entered. Some of the houses contain two small rooms, others three; for the former 2s. 1d. per week is paid, for the latter 2s. 7d. As might be expected, the occupiers of these houses frequently suffer from disease, and at the time of our visit four persons were suffering from contagious sore throat.

In Brazier's-yard, which leads out of High-street, St. Thomas's, the dwellings are in a worse condition than those of Norman's-passage. We inspected two of the houses, Nos. 6 and 9; each contains two rooms only. The former is occupied by a man, his wife, and six children (the eldest a boy sixteen years of age), all of whom sleep in a bedroom only eleven feet square and six feet and a half in height, which gives less than 100 cubic feet to each person, or less than a third of the minimum allowed in the dormitories under the control of the Poor-law Board. The bedroom of No. 9 is about eight feet square, and, being occupied by four persons, the cubic space for each is one-sixth of what is necessary. We were told that the rent of this house is 3s. per week. Like the neighbouring courts, the only provision for drainage is an open gutter. As substitutes for water-closets we observed two privies, with one monster catch-pit full to overflowing with nightsoil, and giving forth a fearful stench. This yard and the neighbouring property belong to Christ Church College, but until recently it has been held by other parties on lease. At Peacock's-yard, Holifield's-place, Wareham-court, and Bookbinders'-yard, all in St. Thomas's, the houses generally are dilapidated; open gutters and disgusting privies are universal; and we also observed some overcrowding. In one instance, a man, his wife, and four children were living in a cottage containing two rooms only, each about nine feet square.

Running through St. Thomas's, and at the back of a long row of houses called Fisher-row, is a sluggish stream known as "The Ditch," which is, perhaps, the worst nuisance in Oxford. It is simply an open sewer, as it not only receives all the sewage from the houses past which it flows, but numerous privies empty directly into it. Those who live near this stream assert that at times the stench which arises from it is intolerable; and we were told that repeated complaints have been made respecting its condition to the Board of Health, but without stimulating its members to action. Standing on a bridge over this stream in one of the main streets of this part of the city, we observed that its bed was thickly covered with black mud and decomposing animal and vegetable matter, that on its surface floated masses of excrement, and that it exhaled the most fetid vapours.

In St. Ebbe's, St. Aldate's, Holywell, and other parts of the city, open gutters—privies whose catch-pits have not been emptied for years—are very common, and drain-traps are unknown. At the top of Park-place, Holywell, are eight privies, having a catch-pit common to all, which was last emptied eighteen months ago; and in another instance four years have elapsed since the soil was last cleared away.

Bad as is the state of the older parts of the city, it is even worse in some of the newly built districts. Here and there whole streets have been built without any provision whatever for drainage. Thus, at Mill-street, Osney, there is in the back garden of every alternate house a cesspit, which receives the sewage of two houses. These pits are supposed to be emptied frequently, but, as it is rarely done, the sewage overflows, and runs over the surface of the gardens, exhaling such bad smells that at times the tenants are unable to occupy the rooms whose windows open towards the back gardens. Each house has its privy, with the primitive catch-pit. The only water supply is drawn from wells sunk in the gardens within a few feet of the privies and cesspits. This being the case, it is not surprising that the persons living in the houses complain of the water being unwholesome. Two samples of water that were shown to us contained immense numbers of living organisms, distinctly visible to the naked eye. In one house we found a boy suffering from blood-poisoning, and in another a patient had recently recovered from "low fever."

The local authorities have, we understand, decided to carry out an elaborate system of drainage, at a cost of something like £80,000, and arrangements are being made to obtain a supply of water from the neighbouring hills; but this, in our opinion, should not prevent public attention being directed to the insanitary state of the city, especially as we are assured these measures will not remedy the worst evils above described. Proper drainage and a good water supply are needed both by rich and poor in Oxford, and *when* provided will doubtless be hailed as blessings; but the poor want more than these—they want clean, roomy, well-built, well-ventilated, and cheap dwellings. The miserable dens of filth and disease which we have indicated should be condemned as unfit for human habitations. Property has its duties as well as its rights, and those who have power in Oxford should see to it—and that immediately—that better accommodation is provided for the housing of the poor and labouring classes of the city.

## THE CONFLICT OF ANALYSTS.

They who undertake to maintain the purity of food have little to boast of in their battles with adulterators. Some of them in bygone days were a little too apt to make sensational statements—such as the manufacture of milk out of sheep's brains,—which were greedily taken up by popular writers, and excited great alarm and disgust for a time, but which after a while were discredited, and rendered the public indisposed to listen to sober truth. This "death-in-the-pot" style is, we hope, extinct; not so the habit of trusting in untrustworthy tests. In the earlier analyses of bread, certain tests were relied on for the detection of alum, but the precipitate, which was rashly taken for alumina, consisted often of the phosphates which must be found in all genuine wheat. Take another necessary of life—milk. The purity of this has been estimated by an apparatus which by itself is ridiculous, though it has been designated a *lactometer* or *lactodensimeter*, and has been vaunted as an infallible test. The defects of this instrument will be apparent when we consider that it only tells how much a given bulk of milk weighs. Now, pure milk consists of two parts—the skim milk, which is a good deal heavier than water; and the cream, which is as light as water, or a little lighter, because of the butter which it contains. This, because of its lightness, *rises* to the top, as is well known. Hence, if pure milk be skimmed, a given bulk of it will weigh more; but if water be added, the given bulk will be lightened again; and a judicious combination of skimming and watering will leave the milk impoverished, but of the same gravity, as shown by the lactometer, as it was at first. Of course, if milk is very light it ought to show a good deal of cream; and if very light milk does not show abundance of cream, it has certainly been watered; but to decide that a lighter milk has been watered, without estimating the cream, is rashness itself.

As Mr. Wanklyn says, "the lactometer confounds together milk exceptionally rich in cream with milk which has been fraudulently watered; and many a poor French pëasant, bringing the best and unadulterated produce of his dairy into a French town, has been ruthlessly stopped by the police, who have dipped their lactometer into the milk, and forthwith sent it down the gutter, as if it had been milk and water." Equally absurd, though in a contrary direction, is the conduct of certain prison officials near London, who, as Mr. Wanklyn says, "are very particular" about their milk. "They allow no milk to enter the prison unless it comes up to the M mark of the lactometer. The M mark is pitched very high, and the milk purveyor reaches the M by skimming the milk." If from milk we go to butter, we shall find different analysts wrangling in a manner that must delight the crafty adulterator and dismay the honest tradesman. Butter contains fat, a trace of curd, water, and salt. The butterman is accused of robbing the stomachs and pockets of his customers by working up an undue proportion of water in his butter. But what proportion is a fair one? Wanklyn allows 18 per cent. for the water and salt; on the other hand, the best specimens quoted by Angell and Hehner, in their work on butter, contain only 12 to 15 per cent. This, however, is a trifle to the question whether the 85 per cent. of fatty matter which butter contains is derived from the cow or from the dripping-pan; whether it has been manipulated by a sweet and wholesome rosy-fingered dairymaid, or by the dirty marine store-dealer, who clandestinely buys the refuse fat from the cook. On this point, Mr. Wanklyn denies that we have any scientific means of detecting foreign fats in butter. Messrs. Angell and Hehner, on the contrary, believe they have found certain chemical qualities which distinguish butter from all other fats, but they throw plenty of dirt at the distinctive tests vaunted by other chemists, and do not hesitate to say that a good deal of injustice has been perpetrated by their means. Thus, in the case of a prosecution at Bow-street, in June, 1874, they describe the analysts as relying on tests which were ridiculous, and they say—"Happily enough the case was dismissed, but not upon the ground of the deficiency of the chemical analysis." But in other cases, they add, heavy fines have been inflicted on no stronger grounds. They also condemn some decisions arrived at in the Marylebone Police-court in April, 1874, as "dangerous to the reputation of the analysts" and "unfair to the traders."

We need not allude further to the conflict of analysts with regard to their analyses of water, as we have shown that a state of things exists which tends to shake the public confidence in the administration of justice. Whilst chemical tests are new, not thoroughly worked out, and not unanimously accepted by analysts, it is unwise and unfair to rely on them implicitly. The whole subject is too new; has never yet received the thorough sifting requisite for the establishment of scientific fact. Out of the conflict of analysts will come truth and certainty at last; but the conflict ought to be carried on in the laboratory and scientific society—not in the police-court, with a tradesman's reputation as *corpus vile*.

We only hope that the crusade against adulteration will be continued more vigorously and more discreetly. We cannot help saying, in conclusion, that tradesmen, if they really care for the purity of their goods, may help themselves if they choose. No tradesman need say that he trusted to his wholesale dealer, and did not know that his pepper was mixed with 10 per cent. of dirt and dust. He ought to know, otherwise what is the use of him to society? There are two modes of determining the purity of goods—chemical tests and the microscope. The former is difficult; but there is no tradesman who cannot soon be taught to tell by the microscope whether his coffee, arrowroot, pepper, mustard, etc., are genuine. Hassall put microscopic analysis on a sound basis many years ago.

## THE SCOTCH LUNACY BLUE-BOOK.

The sixteenth annual report of the Commissioners in Lunacy for Scotland, which has been issued recently, contains a great deal of valuable material, and a great deal of common sense, but we should be incorrect if we said that the impression which a perusal of it has left upon our mind is altogether pleasing. On laying down the volume, we cannot help feeling somewhat strongly that it involves a waste of paper and a waste of power, and that while, to those who value statistics for their own sake, it may well repay an outlay of 1s. 10d., it is scarcely the comprehensive practical summary that as an official report it ought to be. Here we have 329 closely printed pages and tables—so complex and tremendous that it is appalling to look at them, even at arm's

length,—all dealing with the movements for one year of 7982 insane persons; and this, too, from the land of Joseph Hume and Duncan Maclaren. We have heard much lately of Parliamentary reporting, and it occurs to us to ask if no limit can be put to official reporting? Of the making of Blue-books there is no end, and public servants with the Queen's printers at command seem to be heedless of the cost to the Stationery Department. Surely there is a prodigality of print in the report before us in the dedication of thirty pages to one colossal return showing the number, sex, and manner of distribution of pauper lunatics in Scotland in 1873, as many more pages being devoted to an explanation of the expenditure of parochial boards upon them. It may be important to record for all time that Longformacus and Pittenweem were each in that year of grace burdened with one pauper lunatic, that Carmunnoch was free from the imputation of mental disease, and that Cockpen, with which the idea of "daftness" has been long popularly associated, had to expend £211 upon its own insanity; but then all this might have been done more briefly and compactly. To suppose that the report as it now stands is read by Mr. Secretary Cross, to whom it is addressed, or by any one of the members of either House of Parliament to whom it is presented, is to indulge in optimism little short of that of general paralysis. But if the report is not read, then are the ingenuity and labour expended in its preparation fruitless; and that both ingenuity and labour have been lavished upon it is abundantly evident. Indeed, our wonder is that the Commissioners can find time for any other duty besides the composition of this weighty compendium, and that their large staff of clerks has not sunk demented under an excess of decimals. The manipulation, arrangement, re-arrangement, inversion, and retroversion of the figures which the Commissioners have amassed is truly marvellous. All their invention must have been sorely tried in devising and collecting them, for returns would seem to have been called for on all possible subjects. All the asylum black eyes of the year—a goodly crop—are tabulated; all the escapes are summed up; all the attendants dismissed for undue familiarity with the opposite sex are enumerated. So minute are the Commissioners' inquiries that one cannot help feeling surprise that the pedicular researches successfully commenced on the heads of J. McT. and C. L., in the Perth District Asylum, have not been followed up to a complete census of the parasites domiciled upon Scotch lunatics.

A striking feature in the Scotch report is the manner in which it ignores medical science, and depreciates the benefit of medical treatment in diseases of the brain and nervous system. No opportunity is lost of sneering at lunatic hospitals, or of snubbing professional men. When enlarging upon the not unfamiliar theme that sound education and instruction in the laws of health would probably in many cases prevent mental disease, occasion is taken to point out "the futility of asylum treatment when once organic disease of the brain has been established, or where deviation from its normal functions has become confirmed by habit." When accidents to patients are being dealt with, it is suggested that "the aggregation of lunatics is a dangerous and unnatural system, which has only economy and convenience to recommend it." These would be, indeed, grave statements but for the obvious prejudice upon which they are dependent, and but for the fact that they proceed from a board which, unfortunately, does not include one member who has had practical experience in an asylum. Out of their own report the Commissioners may be contradicted in these matters, and sufficient evidence gathered that the medical officers of Scotch asylums are not mere stewards of boarding-houses for incurables, but men of science and skilled practitioners, who, in spite of various discouragements, are doing excellent work in restoring to health many who are afflicted by mental disease.

Some phrases in the report of the Commissioners almost imply that asylums are responsible for any increase of insanity that is taking place, and that you have only to build such an establishment to insure the rapid propagation of mental disease in any district. On close inquiry it turns out, however, that the asylums are not really to blame in this matter, but that the Commissioners have discovered another remarkable illustration of the proverbial canniness of the Scotch character. It results from their investigations that the Scotch people are to a great extent regulated in going mad by the facilities which exist for removing them to an asylum when so affected. If there is easy access to an asylum, they indulge freely in lunacy, but if the asylum is at a distance, and can only be reached by a long journey, they are abstinent. "For instance, the district asylum of the three southern counties—Dumfries, Kirkcudbright, and Wigtown—is situated at Dumfries. But while the proportion of intimations from the county of Dumfries is at the rate of 40·1 per 100,000 of population, the corresponding proportion from Kirkcudbrightshire, which adjoins Dumfriesshire, is 35·6, and that from Wigtownshire, which lies more remote, is only 32·9." Much regret must be felt that these facts were not brought to light long ago, so that the direct encouragement given to lunacy by the erection of the district asylums might have been withheld.

By a similar process of reasoning, it might be shown that the true cause of the increase of insanity in Scotland is the Board of Lunacy in Edinburgh. When that Board was instituted in 1858, there were 5794 lunatics in Scotland. It has now been in operation for fifteen years, and Scotland contains 7982 lunatics. In outlying districts—such as Shetland—rarely visited by the Commissioners, the increase has been insignificant; while in Edinburgh and the neighbouring counties, which are perpetually under their fostering care, the increase has been enormous.

In view of such considerations, it may well be asked if the Board of Lunacy is an unmixed benefit to the country. For our part, however, we do not accept this mode of accounting for the increase of insanity north of the Tweed. We prefer to draw the plain inference which the figures appear to warrant, but which the Commissioners, probably because they have pledged themselves to some other theory, are so loath to adopt—that there is a greater prevalence of lunacy amongst the people. The digging out process must have been completed long ago, and yet last year there was an increase of 133 lunatics in Scotland.

Perhaps the most interesting part of the report is that which deals with the mortality in royal and district asylums, and especially with the deaths from phthisis. After a very careful inquiry into the matter it is found that "phthisis constitutes 27·74 per cent. of deaths in asylums, and 23·23 per cent. of deaths in the general population." This conclusion ought to direct the attention of the Commissioners closely to the dietary and hygienic arrangements of all asylums.

The most racy part of the report, however, is certainly Appendix F, which contains all the despatches and papers relating to a memorable conflict, which may be called the battle of Murthly, in which the Government forces were engaged with a band of insurgents headed by Dr. McIntosh. Professors Laycock and Maclagan were called in as arbitrators, and presented a very able and satisfactory report on the condition of the Perth District Asylum. The result of the "hurly-burly" is that perhaps the Commissioners had grounds for criticism, and that perhaps their strictures would have been better received if they had "modified the whole tone in which they were made." Such a controversy ought not to have arisen, certainly not after fifteen years of inspectorial work. But it is not given to all to be strict and thorough in supervision without being also sometimes inquisitorial and harassing.

## THE WEEK.

### TOPICS OF THE DAY.

A NEW institution, with the title of St. Agnes' Hospital, has been established at No. 85, Newman-street, under the care of the Sisterhood of All Saints, Margaret-street, Cavendish-square, for the reception of "young unmarried women who have been leading an immoral life, and who have become dangerously ill." This hospital, or infirmary, will meet a real want, for it must have not rarely happened to medical men to have patients of this class, who, while so dangerously ill that they cannot be satisfactorily treated in their own lodgings, will not go into the Lock wards, and cannot be received into the ordinary wards of a public hospital. Such persons, if neither labouring under infectious disease nor pregnant, will be received, free of charge, into St. Agnes' Hospital; and, considering the well-known character and nursing experience of the All Saints Sisterhood, we may be sure they will be thoroughly well nursed and cared for. We commend the young institution to the notice of the profession.

It is a rule, scarcely admitting of exception, that a professor in any school of medicine should as far as possible be selected from those gentlemen who have been educated in the institution; of course with the understanding that he is equal to the duties of the office, and will bear comparison with any outsider. The authorities of the Catholic University of Dublin have departed from this rule, whether on sufficient grounds or not we have no information. They have selected as Demonstrator in Anatomy in the University, Dr. Gunn, a gentleman connected with one of the Queen's Colleges. The medical students of the University regard this as a serious grievance, and they have addressed a remonstrance to the Rector, requesting him to withhold his sanction to the appointment. They say the appointment should have been conferred upon some gentleman who had been educated in the University. The correspondent of the *Times*, in alluding to this proceeding, says that it has "called forth some comments, and the illiberal and narrow spirit which it shows is condemned by friends as well as opponents of the University." Whatever force, in the present case, these comments may have, we know not. It remains to be proved whether the proceeding to which they allude is either "illiberal or narrow-spirited." We await an answer to this. All we can say is, that the most prosperous medical schools in the metropolis are those in which the professors are invariably selected from the *alumni*.

No greater boon was ever conferred upon the Royal and Mercantile Navy of this kingdom than the discovery of Sir Gilbert Blane, that a full supply of lime-juice to sailors was, as a rule, an efficient preventive to that horrible disease—scurvy. Captains of vessels are required by Act of Parliament to carry on board, and to distribute among the crew, a sufficient supply of this wholesome agent. As a rule this requirement is fully carried out; any exception to it deserves to be met with exemplary punishment. Last week the captain of a ship lying in the West India Dock was summoned before Mr. Paget for "neglecting to serve a certain quantity of lime-juice to the crew," and there were two more summonses for "omitting to enter the illness of two of the crew in the official log-book." Dr. Harry Leach gave evidence as to the condition of some of the crew whom he had examined. They were suffering from a very severe form of scurvy. The captain pleaded guilty to the charge of not having carried a sufficient quantity of lime-juice. With respect to the other charges, the defendant said that Winter was sent on board suffering from scurvy when he (defendant) was absent. On arriving at the Mauritius the vessel was lying alongside a wharf. He had no control over Winter, who went on shore and caught the fever. That and the drink made his complaint last longer than it would otherwise have done. He did not enter in the log that Winter was sick, as he was eating and drinking the same as anybody else, and was in constant work, with the exception of one day, when he was drunk. When the vessel left the Mauritius four men were laid up with fever. There was a continuance of bad weather, and the ship was frequently flooded with water. He attended the men in their sickness, and gave them everything to get them well. A man died, but not through scurvy. He was certainly guilty of not giving lime-juice for three or four weeks. On rounding the Cape he asked the steward if he was giving out lime-juice, to which he said he was, weekly; and he then told him to give it out according to the regulations of the Board of Trade. The fresh water got bad, and was the cause of this trouble, not the lime-juice. Mr. Paget said it was extremely important that these regulations should be enforced, and it was the captain's duty to see that lime-juice was administered to the crew in proper quantities. The defendant had been guilty of inattention and neglect, but he did not wilfully intend to injure the health of the crew. With regard to not supplying lime-juice, and to show him and other captains the importance of attending to the regulations of the Board of Trade, he fined him £10. The captain ought to have made both entries in the log as to the degrees of illness, but he did not think it was a wilful or serious omission. He imposed a nominal fine of 5s. in each case, and the costs of the two summonses. It may be a question whether, if Winter during the entire voyage had been supplied with a proper quantity of lime-juice, the disease might not have been materially alleviated. We may on this occasion congratulate the public on the appointment of the Health Officer for the Port of London, Dr. Harry Leach, from whose long experience and indefatigable industry we are naturally led to expect important results in the improvement of the health of the sailors of our mercantile navy.

It is notorious that some of the most beautiful of the metropolitan suburban districts are lamentably deficient in good drainage and the supply of pure water. For a long time past the inhabitants of Wimbledon have complained of the former of these evils. We are glad to announce that, after protracted discussions and unnecessary and irritating delays, the Board of Works of the district have entered into contracts to be carried out with the utmost promptitude for a complete system of drainage of the entire district, at a cost of £50,000.

In the report of Mr. Frank Bolton for September last respecting the water supply of London there is little to be noticed. We observe, however, with satisfaction that the filtering of the metropolitan water supply has been lately much improved by the extension of the area of the filters, and by a slower rate of filtration being observed. Two gallons and a half of water per square foot of filter-bed filtered each hour will be 540 gallons per square yard of filtering area each twenty-four hours, and it is desirable that this rate of filtration should not be exceeded.

The Sanitary Commissioner of the Punjaub, in his return for the week ending August 22 last, makes some observations on the cremation of the body of a female who, it was alleged, "died from cholera." The case (and there are many exactly like it) illustrates one of the disadvantages of disposing of the dead by cremation. This method, by destroying all traces of poison or wounds before any suspicion of foul play can get abroad, affords great facilities for the concealment of crime against life. In the weekly return of deaths in Sirsa for August, one female was marked "died from cholera." The Commissioner made inquiries about this case. On the morning of August 19 this woman had a quarrel with some of her female relatives. She became ill at 9 a.m. with vomiting and purging, and died at 3 p.m. the same day. She had only vomited twice and the bowels moved twice. Being a Hindu, she was burnt at 4 p.m. on the 19th. The Commissioner was

inclined to believe, from the information received, that the case was one of suicide and not of cholera. This objection against cremation has been urged with much force in this and other countries. Of course, the objection refers mainly to cases in which the body undergoes cremation in a very short period after death. It has a special reference to India in this respect. If, however, cremation in this country is to be resorted to as an ordinary mode of disposing of the dead, it is evident that some legislative enactment should be made, in order that the commission of crime in any case may be inquired into.

The Americans, as much, if not a more, quack-ridden people than ourselves, may perhaps be influenced, though we doubt it, by the following regulation made by Congress, which, we think, has shown a wise discretion in the matter:—"Articles that are in any way dangerous or offensive, also patent medicines, nostrums, and empirical preparations whose ingredients are concealed, will not be admitted for exhibition." It remains to be seen whether this wholesome reproof to the vendors of quack medicines and their victims will be followed by any beneficial result.

The Downing Professorship of Medicine in the University of Cambridge is now vacant. Up to this time there are only two candidates for the office—Dr. Peter Wallwark Latham and Dr. John Buckley Bradbury. Both these gentlemen, though comparatively young, have justly achieved distinction in the profession. Whichever of them should be elected, no reasonable grounds of objection could be raised against him.

We understand that Dr. Baxter and Dr. Curnow have been appointed Assistant-Physicians to King's College Hospital. To prevent any interference with the duties of the chairs of Materia Medica and Anatomy, these gentlemen will attend at the Hospital on alternate half-years, Dr. Baxter taking the winter and Dr. Curnow the summer six months.

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### SALARIES UNDER THE PUBLIC HEALTH (IRELAND) ACT.

A CIRCULAR bearing date October 8, 1874, has been addressed by the Local Government Board of Ireland to all the sanitary authorities in that country, relative to the salaries to be allotted under the new Public Health Act. The circular states that—

"The following views regarding the amount of the additional salaries are about to be submitted by the Local Government Board to the Lords Commissioners of her Majesty's Treasury for their approval, under section 10 of the Act in question. 1. That the addition to the salary of the executive sanitary officer do not exceed one-fourth of the existing salary of the officer appointed. 2. That the addition to the salary of the consulting sanitary officer do not exceed one-third of the existing salary of the medical officer appointed. 3. That the additions to the salaries of the sanitary officers and sanitary sub-officers do not exceed one-fourth of the existing salaries respectively of the officers appointed. Some sanitary authorities have expressed a preference for remunerating the attendance of their consulting sanitary officer, when required, by fees, to which proposal the Local Government Board have not objected; but they are of opinion that, under the terms of the 10th section, they could not apply to the Lords Commissioners of her Majesty's Treasury for the reimbursement of part of any sum expended in fees or otherwise than by way of new salary or additional salary."

Our readers will bear in mind that the executive sanitary officers will be for the most part the clerks of the poor-law unions in rural, and the town clerks in urban, districts; that the consulting sanitary officers will be generally the medical officers to the workhouses or the dispensary medical officers; that the sanitary officers will be the dispensary medical officers, by virtue of their office; and that the sub-sanitary officers will be what were before known as inspectors of nuisances. According to the recommendations of the Local Government Board, the maximal salary of a consulting sanitary officer will be £60 to £70 per annum; and of a sanitary officer £25 to £30 per annum.

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### PROPOSED TESTIMONIAL TO DR. HUGHES BENNETT.

DR. JOHN HUGHES BENNETT has been obliged by ill-health to resign the chair of the Institutes of Medicine and the collegiate chair of Clinical Medicine in the University of Edinburgh. He has been a professor for twenty-six years, and all who have been his pupils know how excellent and thorough his teaching was, how fearlessly he introduced and advocated reforms, and how much he has added to the reputation of the University he has left. It is thought that such a man should have some permanent memorial in his honour attached to the institutions he has so well served; and to carry out this object a committee was formed at a meeting held at the house of Dr. Andrew Clark on October 14. The intention is first of all to procure a bust of Dr. Bennett for the University hall, and a replica of the same for the New Infirmary. The treasurer, or either of the secretaries, will be glad to receive subscriptions.

*Committee.—Chairman:* Dr. Andrew Clark, 10, Cavendish-square, London, W. *Treasurer:* Dr. A. P. Stewart, 75, Grosvenor-street, London, W. Sir W. Fergusson, Bart., Dr. George Harley, Dr. Dyce Duckworth, Dr. Lockhart Clarke, Dr. Henry Bennett, Dr. Walter Lewis, Dr. Richard Quain, Dr. Greenhalgh, Dr. Tilt, Dr. Vanderbyl, Dr. Thomas Peacock, Dr. Farquharson, Dr. A. W. Richardson, J. A. Kingdon, Esq., and Dr. Lionel Beale, of London; Sir R. Christison, Bart., Dr. Warburton Begbie, Dr. Grainger Stewart, Dr. Argyll Robertson, Professor Balfour, Professor Douglas Maclagan, Professor Simpson, Dr. Matthews Duncan, Dr. W. Cumming, Dr. J. Cumming, Dr. Angus Macdonald, Dr. R. H. Malcolm, Dr. G. W. Balfour, Dr. John Chiene, Dr. Joseph Bell, Dr. James Simpson, Dr. R. Peel Ritchie, and Thomas Annandale, Esq., of Edinburgh; Dr. Waters, Chester; Dr. Carter, Leamington; Dr. Eaton Wilkinson, Manchester; W. Cadge, Esq., Norwich; Professor Macdonald, St. Andrews; Professor Oswald Bell, St. Andrews; Professor A. Buchanan, Glasgow. *Honorary Secretaries:* Dr. J. G. McKendrick, 29, Castle-terrace, Edinburgh; Lawson Tait, F.R.C.S., Birmingham. *Executive Sub-Committee:* Dr. Clarke, Dr. Stewart, Sir W. Fergusson, Dr. Henry Bennett, Dr. Walter Lewis, Dr. Tilt, Mr. J. A. Kingdon, Professor Balfour, Dr. Matthews Duncan, Dr. George Harley, Dr. McKendrick, Mr. Lawson Tait.

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### MINERAL OILS AS DISINFECTANTS.

DR. JOHN DAY, of Geelong, in a paper read before the Medical Society of Victoria on May 6, and published in the *Australian Medical Journal* for June, strongly recommends a trial of the mineral oils as disinfectants. He believes that all the mineral oils possess the property of absorbing oxygen from the atmosphere, and imparting to it increased activity by converting it into peroxide of hydrogen, a substance possessed of very high oxidising powers. For example, a sheet of paper, brushed over with kerosene or gasoline, yields the characteristic reaction with guaiacum resin and blood. Now, it is generally allowed that all true disinfectants are oxidisers. From his knowledge, therefore, of the oxidising powers of gasoline, and from the fact that it is much cleaner and more volatile than kerosene, Dr. Day recommends this hydrocarbon for disinfecting purposes. He states that he has lately been using it for the purpose of disinfecting the walls, flooring, furniture, etc., of rooms in which scarlet fever patients were placed, and with most satisfactory results; but he has also had the patients freely rubbed three times a day with ethereal solution of peroxide of hydrogen and lard in the proportion of one part to eight. A trial of gasoline is further earnestly urged on the profession as a disinfectant in puerperal fever.

It might be applied with a brush or sponge to any article of clothing without doing it the slightest harm; and it would not only disinfect it, but also impart to it disinfecting properties which would last for a considerable time. For among the peculiar properties of the mineral oils as disinfectants is that of their being continuous in their action. Instead of being injured or destroyed by age and exposure to atmospheric influences, as all other disinfectants are, they absolutely improve and gather force. The practitioner might also disinfect his hands by bathing them in gasoline and allowing them to dry in the open air. One caution is necessary in the use of gasoline: from its volatile and inflammable nature it should never be employed near a fire or lights.

### THE PATHOLOGICAL SOCIETY.

TUESDAY was the opening evening of the new session of the Pathological Society, Sir William Jenner, the President, being in the chair. Without further departure from the usual order of proceedings than a brief reference by the President to the new volume of *Transactions*, the work of the year was straightway resumed. As might have been expected, the material exhibited was above the average in quantity, and much of it of great value and interest. Perhaps the most remarkable specimen of all was that shown by Dr. Hilton Fagge, from what would appear to be an almost unique case of diffuse suppurative inflammation of the stomach. Dr. Pye-Smith exhibited specimens of disease of the lymphatic glands and other parts, which were also of unusual interest, on account chiefly of the difficulty or impossibility of naming the precise disease—such as tubercle, lymphadenoma, etc.—to which the condition ought to be assigned. Mr. Butlin's case of elephantiasis Arabum illustrated a subject of extreme importance, which none of the members seemed inclined at the moment to discuss. Scarcely less gigantic in its way than the preceding was Mr. Nunn's specimen of enlargement of the bones of the knee from what appeared to be chronic rheumatoid disease of the joint. The association of disease of the supra-renal capsules with the condition known as Addison's disease was once more evidenced by a remarkable case brought forward by Dr. Peacock. Besides those that we have mentioned, other specimens scarcely less valuable were shown by Mr. Croft, Dr. Cayley, Dr. Crisp, Dr. Coupland, and others. Altogether, the amount of material which was got through was unusually large, and the amount of discussion unusually small—we think with great advantage to everybody concerned. For it would seem to be now generally admitted that many of the members of the Pathological Society (as indeed of too many other societies) make by no means pertinent remarks on every occasion of their speaking, but at times indulge instead in very general, loose, and wearisome statements, or even make ill-timed attempts to illuminate themselves instead of their subject. We were glad to observe on Tuesday that, in the case of one speaker towards the close of the meeting, the majority of the members did not hesitate to express very decidedly their determination not to submit to be talked to after this fashion on the first evening of the session. We hope the warning will be taken in time, and not require to be repeated.

### THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

THE Society of Medical Officers of Health held the first meeting of the session 1874-75 on Saturday, the 17th inst., at the Scottish Corporation Hall, in Fleet-street, Dr. Letheby, President, in the chair. Dr. Vinen read the minutes of the previous meeting. The Secretary stated that a copy of the forms for the statistical returns in the annual reports of medical officers of health, compiled by the Society, had been sent to about 1300 medical officers of health in England and Wales, and that Messrs. Knight, of Fleet-street, were about to publish the forms in sheets. Dr. J. I. Mackintosh, Mr. G. S. Elliston, and Mr. E. Hindle, Medical Officers of Health respectively for Caistor, Lincolnshire, the Port and Borough of Ipswich, and Over-Darwen, were elected as extra-metropolitan members. Dr. J. M. Fox (of Cockermouth), Dr. C. Harrison (of Lincoln), Dr. G. Wilson (of Mid-Warwick), Dr. F. Parsons (of Goole), Mr. E. C. Jepson (of Durham), and Mr. Wm. Jones (of Ruabon), were proposed as extra-metropolitan members. A letter from the Registrar-General had been received, and forwarded to all the metropolitan medical officers of health, in which he notified that the weekly returns of mortality sent to them for some years past would be discontinued after the 21st instant. It was referred to the Council for consideration. A report of the Council was handed in, which stated that during the recess —*i.e.*, in the summer—three meetings had been held, chiefly for the consideration of matters referred to in connexion with the Slaughterhouses Bill. Certain amendments proposed by the Council to clauses in this Bill were accepted by the Government, but many were rejected. At the request of the Works Committee of the Metropolitan Board of Works, charged with regulating the conduct of the businesses specified in the Slaughterhouses Act, a series of suggested by-laws was framed by the Council, and copies sent to the Metropolitan Board of Works, the Commissioners of Sewers, and to every metropolitan member of the Society. It was also resolved by the Council to address a letter to the Registrar-General, suggesting that the words "registered medical practitioner" be printed on the blank form of death certificate, after the space left for the signature of the medical attendant. The Registrar-General replied by expressing his approval of the above suggestion. The Council also resolved to print with the annual report the abstract of answers received from medical officers of health relative to returns of sickness and death. Dr. Letheby then delivered his address "On the Estimation of the Sanitary Condition of Communities and the Comparative Salubrity of Towns," an abstract of which will be found in another column.

### IMPORTANT DECISION REGARDING PROFESSIONAL FEES.

AN important decision has been given by Sheriff Lees, in the Sheriff Court, Airdrie, on the question—"Is a physician who is not registered as a surgeon entitled to charge for surgical services?" The question arose out of an action brought by Dr. Gibb against Mr. Jenkins for the sum of eight guineas for service performed in cutting off both the legs of Jenkins's son, which were injured by a railway accident. The interlocutor issued on Tuesday by the Sheriff decides against Dr. Gibb. "I think," says the Sheriff, "that the defender is right in maintaining that the legitimate and only way of reading the words of the 31st section of the Medical Act is as implying that a medical man is entitled to recover in a court of law charges for services only when rendered under a qualification which appears on the register. In the present case the services rendered and the expenses incurred were for a matter purely surgical; and as the pursuer is only registered on a medical qualification, I hold in law that he is not entitled to recover charges for such services, and I therefore assoilzie the defender." This decision will make physicians careful in future not to indulge in amputation. At the same time patients who prefer to have their limbs cut off by their family physician really should not strain their legal rights to the utmost limit.

### COMMITTAL OF AN ATTENDANT OF A LUNATIC ASYLUM.

AN attendant at the Quebrook Lunatic Asylum was last week, at Liverpool, committed for trial for neglecting to attend to the Rev. H. Strong, a patient under his care. Defendant had been instructed not to allow him the use of a knife, but disobeyed these instructions, the consequence being that Mr. Strong committed suicide by cutting his throat.

KLEIN ON THE FINER ANATOMICAL CHANGES IN TYPHOID FEVER.

Dr. Klein, of the Brown Institution, has lately made some interesting observations on the above subject. Sections of the hardened ilium of typhoid patients show, according to him, that an active absorption of peculiar organisms goes on in the mucous membrane over, and especially around, the Peyer's patches. These organisms are carried from thence into the lymph-canals and the venules of the mucous membrane.

In the earliest case which he examined, where death had occurred on the seventh day after the first appearance of headache, the crypts of Lieberkühn were found to contain peculiar greenish-brown spheroidal corpuscles of very variable size, the largest being twice or three times as big as a human red blood-corpuscle, and the small ones only half or a quarter as large. Where these bodies lie closely grouped together, as is generally the case, they appear of a dark olive-green colour; and the corpuscles at the edge of such masses, or where they are completely isolated, exhibit transitional forms, due to incomplete subdivision. Similar corpuscles are found in the tissue of the mucous membrane, where they appear to be contained in the lymphoid cells of the adenoid tissue. The minute veins, and also some of the lymphatic vessels, contain large numbers of them, and in the former they subdivide rapidly, so as to form greenish-yellow granular micrococci, arranged in groups of two or four, as well as in rings and other figures. The micrococci have their origin in a mycelium whose filaments are branched and apparently smooth, and of a greenish-yellow colour. These organisms occur not only in the neighbourhood of Peyer's patches, which are moderately swollen, but also in parts of the mucous membrane which to the naked eye show no alteration except slight general swelling, although microscopically the follicles of the patches in one case were found to have undergone the following changes:—The central part of the follicle, especially where it lies in the submucous tissue, was converted into a spongy substance by the formation of spaces around its bloodvessels, their wall consisting of the adenoid tissue with which the latter are sheathed. The lymphoid cells of this tissue were converted into large granular bodies containing two to five or even more nuclei, which greatly resembled the nuclei of endothelial cells. In several of the follicles true giant-cells were seen.

In a later stage (twelfth day) the mucous membrane itself showed somewhat similar changes, and the multinuclear lymphoid cells were found in its venules and in those of the submucous tissue as well as in the lymphatics of the latter. Dr. Klein is unable at present to give a decided opinion whether the above alterations are directly dependent on the presence of the micrococci, or whether they must be considered as secondary to changes in the vascular system. The passage of micrococci inwards from the free surface of the intestine can be traced through the epithelium into the substance of the mucous membrane, and especially towards the crypts of Lieberkühn; and this occurs in parts which are at some distance from the swollen Peyer's patches, and which appear nearly or quite unaltered to the naked eye.

TYPHUS FEVER IN NORTHAMPTON.

Mr. Haviland, the Medical Officer of Health to the combined Sanitary Authorities of Northampton, Leicester, Rutland, and Bucks, has published a report on the geographical distribution of fever for the two decennial periods of 1851-60, 1861-70, within the area of the combined sanitary authorities. He has appended two maps, from which may be learnt the progress of sanitation within the county of Northampton; and, as he suggests, a comparison of the difference in the mortality from this cause—typhus fever—during the two decennial periods is instructive as to the history of certain preventable causes of death.

SOCIAL EVIL IN CARDIFF.

The Board of Guardians of Cardiff have shown a commendable desire to meet the exigencies of a social evil which largely affects that town, as it does many like ports. The new hospital of the union workhouse is now opened, and gives accommodation to about 130 patients. The improved accommodation and regulations for the treatment of venereal disease will, it is hoped, induce the class of persons suffering from it to seek in greater numbers, and at an earlier period, the advantages which are now offered to them. Referring to the deficient staff of paid nurses to the hospital, in which there is generally a large number of sick patients, we quite concur with Dr. Alfred Sheen, the medical officer, in his remark in his last annual report, that "there ought to be the same facilities for the treatment of diseases in a union hospital nowadays as there are in any ordinarily well-appointed hospital."

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

At the annual general meeting, held in the College Hall on the evening of Wednesday, October 14, 1874, the following were appointed office-bearers for the ensuing session:—*President:* James Foulis Duncan, M.D. *Council:* J. Hawtrey Benson, M.D.; Thomas Fitzpatrick, M.D.; Arthur Wynne Foot, M.D.; Thomas W. Grimshaw, M.D.; Thomas Hayden; Henry Kennedy, M.B.; James Little, M.D.; J. W. Moore, M.D.; J. Magee Finny, M.D.; C. J. Nixon; John M. Purser, M.D.; Gerald F. Yeo, M.D. *Honorary Secretary:* George F. Duffey, M.D. Dr. Grimshaw gave notice of motion to the effect that in future four Vice-Presidents be annually appointed—one to be the Vice-President of the King and Queen's College of Physicians for the time being, the others to be elected from the general body of the members. This notice will be considered at the next ordinary meeting of the Society.

SCHOOL OF PHYSIC IN IRELAND.

The Board of Trinity College, Dublin, are about to largely increase the endowment of the chair of Chemistry in this school, vacated by the resignation of Professor James Apjohn. It is also intended to appoint supernumerary examiners in several of the subjects required of candidates for the various degrees in medicine and surgery.

HEALTH OF SCOTLAND.

In the eight principal towns of Scotland, in the week ending the 17th inst., there were registered 567 deaths; in the corresponding week last year the number was 540. This increase arose chiefly in Glasgow, Edinburgh, and Dundee.

NAVAL MEDICAL SUPPLEMENTAL FUND.

At the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 13th instant, Sir Edward Hilditch, Inspector-General, in the chair, the sum of £78 was distributed among the various claimants.

Digitalis in Measles and Scarlatina.—At a meeting of the Philadelphia Medical Society, Dr. Atkinson called attention to the great benefit he had derived from the employment of digitalis according to the formula of the late Dr. Gebhard. It consists in an infusion made with a drachm of the powder and twelve tablespoonfuls of boiling water, a teaspoonful being given every two or three hours, according to the age of the child. He had used it for many years, and always with markedly good results in from twenty-four to thirty-six hours. Dr. Atlee observed that he had found digitalis a valuable remedy in acute diseases and in all cases of irritability of the heart. Neither of the speakers had ever met with an instance of its cumulative action.—*Phil. Med. Times*, No. 139.

## THE LORD RECTORSHIP OF EDINBURGH UNIVERSITY.

(*From a Correspondent.*)

The opening of the winter session at Edinburgh University in the first week of November will be characterised by all the excitement of the triennial election of a Lord Rector. Students who may have the good fortune to commence their studies this session will have the advantage of being thrown at once into circumstances where they will have an opportunity of witnessing and participating in the enthusiasm of a large body of students principally employed for the first time in the exercise of electoral privileges. Those whose curriculum is drawing to a close will be called upon to renew a struggle which three years ago they engaged in with interest, and which, in the ordinary course of events, will be the second and last election of the sort which they will ever participate in. Those who have experienced the vicissitudes and enjoyments of a rectorial election can never look back upon the experience without interest. The manifestation of practical hero-worship, the reign of parody, the period of noisy public meetings, and the rowdy antagonism of rival parties, which characterise the preliminaries of such an election, form a grateful reminiscence of college life. The excitement of voting, the suspense of counting, and the pandemonium following upon the final announcement are sufficiently impressive to constitute retrospectively a series of the most memorable episodes of academic existence. The exuberance of student vitality is generally in itself sufficient to make such times particularly lively, but the addition of an earnest political or internal dissension increases materially the excitement of the event. Thus, at the last election of Lord Rector at Edinburgh University, an unhealthy feeling of antagonism arose on the disputed matter of female medical education; and unfortunately the minds of a large proportion of the students were not calmed after the determination of the election, but continued in a state of agitation up to the time when Sir Stirling Maxwell was called upon to address his academic constituents. We hope that during the impending election no such cause of difference will arise amongst the students, and that, though they may enjoy to an unlimited extent the excitement of a warmly contested election, the honour may be assigned, not on account of opinions regarding any debated subject, but on consideration of general merit and, to a limited extent, of local associations.

In looking over the short list of men who have acted as Lord Rectors of Edinburgh University, it is at once seen that they have been prominent by virtue of political or literary standing, but in no instance distinguished in science. Men of letters and politicians can command so much general support amongst a large mixed body of students, that men of science have comparatively little chance of success in a general election. All classes of students are more or less literary, but medical students stand almost alone in a university as interested in science. It is not to be wondered at, therefore, that the numerous medical and general scientific men who have hitherto been proposed as candidates for the Rectorship of Edinburgh University should have been destined to early removal from the contest. However much Scotch students may modify their opinions as their curriculum advances, they generally come up to the University with, to say the least of it, suspicions against science as contrasted with religion. At the same time excellence in literature is more widely and readily appreciated than eminence in science; and for both reasons the bulk of students are so ready to throw in their votes for the popular leader, that the man of science fails to secure his proper place as a representative man in Scottish universities. But during the impending election the students of Edinburgh University may have an opportunity of choosing for their Lord Rector one whose high political standing, combined with rare social qualities and honourable connexion with the University, points him out as one whom the students should delight to honour. The medical faculty in Edinburgh is relatively so extensive as to justify the feeling that occasionally the students of medicine ought to have a Rector who would represent more directly the interests of science; yet it would be too much to expect that the students of other faculties would hold their votes in abeyance for the purpose of conducing to the election of a purely scientific man. But when one highly distinguished can be found, whose life has been long and prominently devoted to the advancement of science as a means of benefiting all classes of the community, whose long connexion with the University as a teacher has secured for him the lasting admiration of many generations of students, and whose short political career has already led him to a position of distinction, students of all faculties may well combine to honour one possessing gifts and qualifications which all can unreservedly admire. We believe that in the Right Hon. Lyon Playfair the students of the University of Edinburgh would possess such a candidate. His election in 1868 as member for the Universities of Edinburgh and St. Andrews, and his recent unopposed re-election, may show the students at Edinburgh in what estimation Lyon Playfair is held by their predecessors. His high position in the late Government, and the approval which was so widely expressed regarding his selection as Postmaster-General, testify how highly he is valued by the body politic. The undoubted value of all his comprehensive utterances on the subject of social and of technical science, and the friendly enthusiasm with which his former students constantly speak of him, strongly recommend him to the present race of students as one possessing all the qualities of mind and heart which constitute a distinguished and useful Lord Rector. "Far away birds have fair feathers," and the ardent young voters of Edinburgh University may be led by the romance of distant genius to cast in their lot for one whose qualifications are more glaring but less solid than those of the late Postmaster-General. Under such an influence it will be well for them to remember that the honour which a prophet receives in his own country is complimentary both "to him that gives and him that takes," as showing a discrimination in the dispenser of the gift which is not usually credited to those who judge their neighbours. During the ten years when the Right Hon. Lyon Playfair acted as Professor of Chemistry in Edinburgh University, he taught the subject in a manner which brought it home to his hearers as a science having immense practical bearings, and in a style which, in many instances, has defied the erasure of time. His great personal interest has always been employed in promoting the best interests of the University; and though the admirable spirit which he has always manifested of cultivating as a primary motive the interest of great special and social schemes, whilst regarding his personal advancement as a secondary consideration, has till lately kept him rather in the background in public estimation, there would now be all the more honour in Edinburgh students recognising the accumulated fund of his deserts.

It is highly probable that on many considerations, both political and personal, Sir William Stirling Maxwell will be nominated by the students for re-election as Lord Rector. Such a proceeding would be unexceptionable. He possesses almost every quality requisite in a good Lord Rector. As a man of sound judgment, of great learning, and finished refinement, he can well perform both the practical and ornamental duties of the office. But men deserving of the student's honourable tribute of esteem are by no means scarce, and the honour of the Edinburgh Lord Rectorship should be distributed as well as awarded to the best advantage. On such grounds we consider that it would be a graceful act, and one reflecting credit both on the givers and the receiver, if the students of Edinburgh University were to elect the Right Hon. Lyon Playfair as their next Lord Rector.

## FROM ABROAD.

### Chlorosis and Phthisis Pulmonalis.

Under the above title, Dr. Gallard, of the Pitié Hospital, has published recently (*Union Médicale*, September 29) an interesting clinical lecture. He cautions his hearers against being led away by two cases related in the "Clinique Médicale" of Trousseau, in proof that the employment of iron is absolutely contra-indicated in phthisis as both hurtful and dangerous. In one of these two cases it was given for neuralgia, and in the other for chlorosis, and in both the patients were rapidly cured of the symptoms for which it was administered, and then speedily carried off by phthisis. These cases occurred at the beginning of

Trousseau's career; and the remarkable thing is, that some twenty years afterwards he published them without any corroboration from the vast opportunities he subsequently enjoyed. Galloping consumption is of too frequent occurrence not to have given him plenty of opportunity of observing it more accurately than he did at this early period. However, these two cases seem to have taken such firm possession of him as to lead him into the error ("and this genius, as paradoxical as it was brilliant, has committed and propagated more than one such") of positively prohibiting the use of iron in this disease. What especially confirmed him in this erroneous view was the idea which he entertained also that chlorosis, essentially a nervous disease, is quite different from anæmia, an affection solely characterised by a diminution of blood globules. This distinction is not admitted by the clinical observers, who speak with as great an authority as Trousseau himself, and who, so far from finding iron injurious in the chlorosis that accompanies, often administer it with great advantage while employing it with discrimination.

The form of iron which Dr. Gallard has found most useful is the carbonate, with which, in order to enable it to be better tolerated by the stomach, he associates a little opium. His formula is—carbonate of iron and soft extract of cinchona, of each five grammes; gummy extract of opium, twenty-five centigrammes; divided into fifty pills. Of these four are taken daily, two at the commencement of each principal meal. But this addition of opium, and the precaution of taking the pills at mealtimes, which succeed so admirably in simple chlorosis, do not always enable iron to be borne by phthisical patients, and in such cases we should follow the advice of Louis, and substitute ferruginous mineral waters, drank at mealtimes. The Orezza water is that which is best supported by these patients, as well as by women whose chlorosis is dependent upon disease of the internal genital organs. Its superiority arises not so much from the quantity of iron it contains, which exceeds that of any other mineral water, as from the large proportion of free carbonic acid and alkaline bases which also enter into its composition. These elements favour digestion and render the absorption of the iron more easy; and so efficacious does Dr. Gallard consider this double action of the carbonic acid and the alkaline bases in facilitating the tolerance and absorption of iron and its compounds, that for his hospital patients, for whom these mineral waters are not procurable, he generally directs seltzer-water to which a little bicarbonate of soda has been added to be given at the same time as the ferruginous preparations. If he insists on the necessity of administering iron at mealtimes, and of associating with it a small quantity of opium, it is because there is no contra-indication more important than the disturbance of the stomach which in so many cases prevents our profiting by its useful action. But if we proceed carefully, commencing with small doses, and especially alternating the ferruginous preparations with bark and arsenic, which are also indicated under the same circumstances, we may avoid exciting these "revolts" of the stomach, which are never met with when ferruginous mineral waters like the Orezza are employed, that contain a sufficient proportion of free carbonic acid.

"Let it be well understood," Dr. Gallard concludes with saying, "that I do not recommend iron as a means of treating phthisis, but entirely as a useful one for diminishing, if not entirely dissipating, the anæmia which accompanies it. Now, this anæmia may have a double origin. First, it may be purely chlorotic. It will be readily understood that a young woman, even born of tuberculous parents, may become chlorotic at puberty under the influence of the same causes that produce the affection in others of her age, and that before the tubercular diathesis has revealed itself in her by any anatomical manifestation in the lungs. It is a young woman like this whom Trousseau will not treat, and whose treatment I undertake with all the precautions indicated above. She is effectually cured, and her tubercular affection is not, notwithstanding what the illustrious clinical professor at the Hotel-Dieu may say, in anywise aggravated by the cure of her chlorosis. Quite the contrary; it is allowable to say, with Louis as our guide, that the careful and moderate employment of ferruginous preparations, associated with other tonics, constitutes one of the essential elements of the best preventive treatment which can be directed against the pulmonary phthisis with which she is threatened. At a later period, when the lungs have become affected, and auscultation reveals undoubted signs of material lesions, the anæmia which is produced is due rather to a diathesic influence than to chlorosis properly so called. Treatment may then be often fruitless; but even under these unfavourable circumstances it is rare for ferruginous preparations not to temporarily invigorate the impaired strength, and procure for the patient a period of relative health. Under any circumstances, what comes out to me clearly and distinctly from the attentive study of all the facts that I have had the opportunity of observing, and of those related by various authors, is that it is an error to interdict the use of iron to the subjects of phthisis, for whom, under certain determinate circumstances, it may prove extremely useful; and with respect to this medication, as on many other points, the calm, cool, and reflecting genius of Louis has once more the advantage over the daring, mercurial, and paradoxical genius of Trousseau."

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### Treatment of Aneurism and Wounds of Arteries.

Professor Verneuil recently read an interesting paper upon this subject at the Paris Société de Chirurgie (since published in the *Gazette des Hôpitaux*, October 8 and preceding), founded on seven cases that have come under his care. Of these four were examples of spontaneous popliteal aneurism, one a case of femoral supervening on contusion, one a radial occurring after a wound, and one a palmar arising amidst a purulent collection. In five the aneurisms were circumscribed, and in two diffused. The subjects were all males, and, with the exception of one, in good health and the prime of life. The result was successful in five cases (two of the popliteal, in the femoral, the palmar, and the radial), and fatal in two. The duration of the treatment (except for the radial) was prolonged, requiring a mean of two months and a half. In three of the instances the patients cured themselves, almost without the direct concurrence of the surgeon, who only gave his instructions and surveillance. The part which the patience, address, and intelligence of the patient may play in such cases is well known, and forms a resource which should never be disdained. In one of the two popliteal aneurisms which proved fatal there was gangrene of the leg caused by emboli, and followed by purulent infection; in the other there was arthritis of the knee and phlegmon of the thigh. These results in both cases M. Verneuil attributes to the treatment employed, and thinks that they might have been avoided.

Passing in review the different procedures that were employed in the seven cases, he states that *compression* was at once resorted to in six cases, succeeding in two and abandoned in four. It cured unaided the radial, and, in conjunction with flexion and extension of the leg, one of the popliteals. In two cases it was abandoned, in consequence of the great pain it speedily caused, and of its failing to arrest or even moderate the progress of the affection. Although in the present series of cases compression has proved of so little advantage, M. Verneuil has in other cases achieved brilliant success in its employment; but these failures should tend to moderate the enthusiasm which has of late regarded it as a panacea. *Flexion* had to be abandoned in two cases because it only arrested incompletely, and that with great trouble, the pulsations of the aneurism. In two other cases it furnished excellent results, as it alone was required to effect the cure in one of these, and powerfully aided the effects of compression in the other. It has the advantage of allowing the patient to quit his bed and walk with crutches without compromising the result. *Injection of perchloride of iron* was performed with complete success for a small palmar aneurism, but failed when tried in a popliteal; and the method seems suitable only for small aneurisms situated in regions where the detachment of a clot would not be of much consequence owing to the abundant collateral circulation. Like most French surgeons, M. Verneuil has had very limited experience in the use of the *ligature* in aneurism; but in the case of popliteal aneurism in which he employed it in the present series it succeeded promptly and speedily, care having been taken not to attempt union by first intention. *Amputation* is an extreme measure, which at the present day should hardly be deemed as one of the methods of treating aneurism. Still, it is indicated as a last, although precarious, resource when certain complications occur, such as gangrene, diffuse phlegmon, purulent arthritis, bursting of the sac, hæmorrhage, etc.; and M. Verneuil now regrets that in two of his cases in which precise indications were present he

allowed the opportune time to pass by without venturing upon the operation.

In the discussion which followed the reading of this paper, M. Dubrueil observed that he had a higher opinion of compression than that entertained by M. Verneuil, especially when made completely by means of a small globe and a roller. With respect to wounds of the palmar arch, he does not approve of tying the ends of the vessels, as diffuse phlegmon is to be feared as a consequence of the great violence done to the parts by the operation. He prefers the practice followed by Robert and Jarjavy of tying the brachial above the origin of the profunda. M. Le Fort, in wounds of the palm, also believes that too much mischief may be done to the soft parts in seeking for both ends of the vessel; and if we can secure the bleeding end, we should then try direct compression for the arrest of the bleeding. When this recurs, as it often does, it will be preferable to employ the actual cautery and to tie the brachial than to make large incisions into the palm, which open the sheaths of tendons, giving rise to serious phlegmons, and impairing the functions of the hand. M. Desprès disapproved of this practice entirely, believing that tying the wounded ends of the vessel is the proper course to pursue, and is quite exceptionally followed by any bad consequences. These cases are usually so simple in their course that they are not published at all, and thus erroneous inferences are drawn from the exceptional cases, which alone are published. MM. Tillaux and Guyon also fully believe this to be the proper course, and do not regard the laying bare the ends of the vessel as the serious matter which M. Le Fort designates it. In searching for wounded vessels at the wrist, M. Guyon has found one anatomical point well worthy of note. Immediately external to the pisiform, the ulnar nerve and artery are enclosed in a fibrous sheath, which also contains a pellet of fat. On incising the skin immediately externally to the projection of the pisiform, and then dividing the little aponeurotic layer which presents itself, we come upon the small mass of fat; and on pushing this aside we find the artery. Another useful anatomical point to know is that a transverse line carried across the palm, taking the base of the thumb extended in abduction as a starting point, represents the direction of the superficial arch.

M. Marjolin said that in some wounds of the palmar arch he had obtained good results from compression practised by children whom he had taught to do this. In recent cases he would tie the ends of the vessel, reserving compression for difficult and old cases. He regards the question as one of great difficulty, and calls to mind a case in which he had seen Blandin, after a series of failures of ligatures for a wound of the palm, finish by amputating at the shoulder-joint, and losing his patient after all by hæmorrhage. M. Perrin joined his colleagues in condemning the practice recommended by M. Le Fort. To tie the brachial for a wound in the palm is to go much beyond the mark, and to perform an operation that may prove very dangerous, while the employment of direct compression is an unsuccessful and dangerous procedure. He has met with three cases in which it induced fatal gangrene within twenty-four hours. M. Perrin in about ten cases has had to treat either primary or secondary hæmorrhage at the lower part of the forearm or the palmar arch, and he has never met with the difficulties in finding the vessels and the bad consequences of the search for them that have been advanced. When the wound is recent the operation is even easy, however much the surrounding cellular tissue be infiltrated. On secondary hæmorrhage taking place amidst softened and sanious tissues transformed into a black magma by the perchloride, the search becomes much more difficult. But by practising sufficient incisions in the direction of the arteries, and taking time enough, the end may usually be attained. M. Perrin, therefore, regards it as an absolute precept to tie arteries that have been opened either primarily or secondarily, wherever they are accessible; and it is only when they have been fruitlessly sought for that any other procedure is permissible. Compression, in his opinion, is a faithless or dangerous mode of treatment, and should only be regarded as a provisional resource. "The Society of Surgery should speak very positively on this point, for compression has too many adepts in ordinary practice, and only serves as a refuge for disguised abstention." M. Le Fort explained that he was no advocate of the abuse of compression, which he regarded as a very uncertain means of treating primary hæmorrhage of the palmar arch. Still, in deep-seated wounds of the arteries of the palm, when large incisions would have to be made, he regards it as a useful measure after tying the end of the vessel furnishing the blood. In secondary hæmorrhages, where the ends of the vessel can only be found after large *débridements*, he still thinks it best to cauterise the wound and tie the brachial.

M. Verneuil thus sums up his opinions on the treatment of wounds of the palmar arch:—1. In recent wounds compression is usually inefficacious, and sometimes dangerous in consequence of the phlegmonous inflammation to which it gives rise. 2. The application of the ligature within the wound is generally easy, requiring patience rather than dexterity; and it is usually followed by the best results, simplifying rather than aggravating the palmar wound. 3. When the wound is old and attended with repeated secondary hæmorrhages and inflammations at the seat of injury and its vicinity, with tumefaction and suppuration, direct compression is inapplicable, insupportable, and useless, while indirect compression is usually useless. 4. While the ligature of the two ends of the vessel in the wound is a laborious and really difficult operation, it can usually be effected; and the fears of friability of the arteries is illusory. The necessary incisions, providing that they are made with prudence and with proper anatomical knowledge, are not so mischievous with regard to the future functions of the hand as they have been said to be, while they modify in a favourable manner the course and termination of the palmar phlegmon. This form of ligature puts an end to the hæmorrhage more effectually than any other means. 5. The indirect ligature of the arteries of the forearm is of easy application, but rarely successful. 6. Ligatures of the axillary or brachial, besides that they are neither so easy nor absolutely innocuous, are far from being a certain means of arresting hæmorrhage and of putting an end to the inflammatory complications of the wound.

## REVIEWS.

*Butter: its Analysis and Adulterations, specially treating on the Detection and Estimation of Foreign Fats.* By Arthur Angell, F.R.M.S., Public Analyst to the County of Southampton; and Otto Hehner, Assistant to Dr. Hassall. London: Wyman and Sons. 1874. Pp. 52.

*Milk Analysis: a Practical Treatise on the Examination of Milk and its Derivatives—Cream, Butter, and Cheese.* By J. Alfred Wanklyn, M.R.C.S., etc., Public Analyst for Buckinghamshire, Buckingham, and High Wycombe. London: Trübner and Co. 1874. Pp. 70.

*Tea, Coffee, and Cocoa: a Practical Treatise on the Analysis of Tea, Coffee, Cocoa, Chocolate, Maté, Paraguay Tea, etc.* By J. Alfred Wanklyn, M.R.C.S., etc. London: Trübner and Co. Pp. 60.

*Water Analysis: a Practical Treatise on the Examination of Potable Waters.* By J. A. Wanklyn and Ernest Theophron Chapman. Third edition, entirely rewritten by J. A. Wanklyn, etc. London: Trübner and Co. Pp. 140.

Butter, as Messrs. Angell and Hehner justly remark, constitutes by far the largest portion of fat which many persons take; it is therefore well worth the physician's while to consider its purity, and it may be remembered, as our authors tell us, that so delicate is its nature that the touch of a sweaty hand during the manufacture may destroy its flavour and set up decomposition. The quantity of it, and especially of that which is supplied to the helpless inmates of schools and institutions, will be seriously diminished if it contains, instead of the normal 7 or 8, so much as from 20 to 40 per cent. of water, as it often does.

Butter consists of fat, water, casein, and salt; and the chief adulterations it is liable to are—the fraudulent addition of water and salt, and the substitution of cheaper fats for the genuine fat of butter. We may say, in passing, that as butter always contains some (about 8 per cent.) water, so the absence or very small quantity of water would lead the analyst to suspect the presence of some other fat. This last is the commonest and most grievous adulteration, and it is to this that our authors' labours are chiefly directed.

They think very little of the microscope as a means of determining the purity of butter. What the microscope with polarised light can do, is to show the presence of crystals, which never appear in butter or in any *raw* fat, but only in such as has undergone fusion. Hence genuine butter, if accidentally melted and slowly cooled, *may* exhibit crystals; but butter adulterated with foreign fat is far more likely—

certain, our authors say—to have been subjected to fusion; therefore crystals in butter are suspicious, but nothing more.

The tests on which Messrs. Angell and Hehner rely are two-fold, and are—one physical, the other chemical. The physical test is the estimation of the melting-point, which they arrive at by a new method—that is, by determining the temperature at which a glass *bob* properly weighted sinks in the melting fat. This, for genuine butter, is 35·5° C. But other fats, and notably "dripping" or "kitchen-stuff," being that part of the fat of meat which melts out most readily, have nearly the same melting-point as butter. Lard, suet, and other fats are much higher; and a high melting-point is strong evidence of admixture.

The chemical test consists in the estimation of those fatty, volatile, and soluble acids which are peculiar to butter, as the butyric, capric, etc., but chiefly the butyric. On this point our authors claim the privilege of setting their analytical brethren to rights. Most of these declare that the quantity of butyric acid is very small—not above 2 per cent.; our authors affirm emphatically that the volatile acids amount to nearly 10 per cent. of the *butter-fat* (and the butter-*fat*, it must be remembered, is the 85 per cent. of pure fat which remains after the water, salt, and curd have been removed from butter).

They take the pure butter-fat, saponify with potass, decompose the soap with acid, and distil—reckoning the loss in distillation to be butyric acid. From the results of their experiments they decide that butter-fat contains (in round numbers) nearly 10 per cent. more volatile fatty acid, and consequently nearly 10 per cent. less insoluble fatty acid, than any other kind of fat. "All other fats yield 95·5 per cent. of fixed fatty acids, and all butter fats 86 per cent." The authors' researches show them that "our method is satisfactory, and at least as accurate as any other method employed in food analysis." We suspect that some of our chemical friends demur to the assumption that the loss in distilling the butter-soap with acid is all to be reckoned as butyric acid.

Mr. Wanklyn's treatise "On the Analysis of Milk, Butter, etc.," is particularly full on the subject of milk. He notices what the medical practitioner should never forget—namely, the existence of phosphate of lime as an inseparable ingredient in the curd, and that it constitutes two-thirds of its ash. He believes, and lays it down as an axiom, that milk possesses greater fixity of composition than is generally supposed; that the *quantity* yielded by different cows may vary largely, but that there is no such great difference as is sometimes supposed in the total solids in the milk of any two individuals of the same species. In this respect milk is like blood, and unlike urine. Thus, drinking a large quantity of water will reduce the specific gravity of the urine (which represents superfluity and waste), but not that of milk, which stands in a very different category. "This constancy of composition," says Mr. Wanklyn, "is a cardinal point in milk analysis. If milk were variable in strength, as urine is, chemical analysis would fail to detect the watering of milk."

Mr. Wanklyn assumes, as the result of the repeated experiments of himself and of other observers, that normal milk—the mixed milk of a flock of cows so numerous that individual peculiarities shall neutralise each other—contains in 100 grammes 12·5 of solids and 87·5 of water, and that the solids consist of 9·3 grammes of "solids which are not fat," and 3·2 of "fat." Hence of the two methods of sophistication—skimming and watering—watering decreases the proportion of total solids, whilst skimming diminishes the proportion of fat, and leaves the proportion of "solids not fat" unaltered or slightly raised. Mr. Wanklyn, whose *forte* is clearness, leaves not the smallest ambiguity or difficulty in the methods he describes of obtaining these milk residues—total solids, total fat, total solids not fat. He then gives formulæ by which, from the results of these analyses compared with the standard, the amount and kind of sophistication may be calculated.

The other parts of his treatise deal with butter (the admixture of which with foreign fats he considers undetectable in the present state of science), cheese, preserved milk, and koumiss. There should have been, but is not, a chapter on milk punch, which affords interesting specimens of the earthy salts from milk. There is, lastly, a chapter on poisonous milk and milk panics, in which he tears to rags and tatters the theory that typhoid fever was ever propagated by milk. On this, as we do not wish to be rude, we shall say nothing.

In the work on "Tea Analysis," as in other works by this accomplished and indefatigable analyst, we should be glad to see more use made of the microscope. Nevertheless, as the most common and odious kind of sophistication consists in the drying, and selling as new, the leaves that are already spent and exhausted, so he expends most of his force in detecting this form of fraud. This is done by the estimation of the quantity of extract soluble in boiling water, and of the total ammonia, free and albuminoid, yielded by any sample of tea. The extract averages 40 per cent. of the weight.

The chapters on coffee and cocoa are instructive, but deal only with the chemical analysis and manufacture.

Of the treatise on the Analysis of Water we need only say that it is, we believe, the earliest distinct treatise on the subject, and that it maintains its character for completeness and clearness. It contains an account of the practical chemistry of water, the collection of specimens, the estimation of the solid residue, the chlorine, the organic matter, any metallic contamination, hardness, filtration, and the like. The chapter which will naturally be consulted with the greatest interest is that which treats of the organic matter, in which the author, having recounted the now abandoned methods of estimation—(1) by combustion, (2) by permanganate of potass, (3) by Frankland and Armstrong's process,—details the "ammonia process," which was invented by himself, the late lamented Chapman, and Mr. Smith, in 1867. This process "operates on the water itself, and not on the residue got by evaporation." The water is distilled; any "free ammonia" contained in it comes over, and is estimated by Nessler's test. Then to the water is added potass and permanganate, which by continued boiling decompose any organic matter present in the water, and cause it to give over its nitrogen in the form of ammonia. This is again estimated by Nessler's test, and is reckoned as "albuminoid ammonia." Thus the "free ammonia" shows that which may have come from the air or from organic substances already decomposed; the "albuminoid ammonia" is a measure of undecomposed organic matter, but whether this be alive or dead, hurtful or harmless, the test says nothing,—only we know that nothing of the sort ought to be found in drinking-water.

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*On the Right Use of Disinfectants.* By H. Letheby, M.B., etc. Reprinted from *Public Health*, with additions and corrections by the author. London: Statham and Co. 1874.

This is an account of the nature and properties of each of the substances ranked together as disinfectants, written so clearly and fully as to adapt it not merely to the medical practitioner, but to every person of good education. The writer deals first of all with the classification of disinfectants, showing what various and opposite properties are possessed by divers members of the class—how that some, for instance, arrest decay, whilst others promote decay rapidly, and so bring organic bodies to their final state of equilibrium. Every member of each class is described separately; and here, by-the-bye, we must notice one practical remark concerning carbolic acid. When this substance is applied to certain ferment cells, or to vaccine virus, it checks their growth and action for a time, but does not necessarily kill them outright; for if freely mixed with water, the germs may recover all their activity. This is well worth knowing when we deal with clothing infected with scarlatina or small-pox. Perhaps the most useful part of Dr. Letheby's lecture is that in which he takes each separate case or circumstance in which disinfectants are required, and indicates the best disinfectant in each case, and the best mode of using it.

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Scarlet fever is prevailing to some extent in Liverpool. In the lower parts of Nottingham fever has broken out rather extensively, and some cases of small-pox have also occurred.

Monkwearmouth and Southwick Dispensary.—The first annual report of this charity shows that during the year 586 cases came under treatment, and that its financial condition is satisfactory and encouraging.

Norfolk and Norwich Hospital.—Notice has been given that at the next quarterly meeting it will be moved—"That a committee be appointed to inquire and report as to the necessity of appointing a superintendent of hospital nurses, and whether a combined system of hospital, private, and district nursing could be advantageously adopted in this, as it has been in other large towns."

## GENERAL CORRESPONDENCE.

### PLAYFAIR *v.* LETHEBY ON THE USE OF PERFUMES.

[To the Editor of the Medical Times and Gazette.]

Sir,—When doctors differ, they ought to meet and devise some experimental method by which their differences may be settled. This is the case with regard to the use of perfumes. Some authorities (and I especially point to Dr. Lyon Playfair in his late address at Glasgow) affirm, without hesitation, that they do but imperfectly hide stinks, making the air perhaps more pleasant, but intrinsically fouler. Hence perfumes of all sorts are condemned as barbarous.

Other philosophers, of whom I will quote Dr. Letheby, give perfumes a far higher place in the economy of nature. They are known to hinder the development of the low organisms which set putrefaction going; and still more, they are asserted by Dr. Letheby and others (he quotes Professor Mantegazza, of Padua) to be largely oxidised and ozonised; to combine with, and part with, large quantities of atmospheric oxygen in its most active condition.

In addition to these scientific ideas, we have the empirical practical use of perfumes by men of all ages, whenever it was necessary to purify the air. The burning of incense in chambers, the use of fumigation by aromatic plants or seeds cast upon hot coals, the fans containing cloves strung upon thin bars, which are waved behind people of consideration in India, all point to popular belief; and popular belief may happen to be well founded.

Sanitarian philosophers are therefore respectfully requested to agree whether perfumes are of use in decomposing stinks or not. Of course, by *use*, I mean use in the right place and degree. They must not supersede soaps or ventilation; but they certainly render a sick-room less unpleasant during sacrifices to Cloacina; and with due ventilation the perfume is soon blown out, along with the stink it was meant to hide, or decompose, as the case may be.

I am, &c., An Afflicted Sanitarian.

London, October 17.

## REPORTS OF SOCIETIES.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, October 13.

C. J. B. Williams, M.D., F.R.S., President, in the Chair.

A paper "On the Pathology and Treatment of Cholera by the Subcutaneous Injection of Chloral Hydrate," by Surgeon Augustus R. Hall, R.A., was communicated by Dr. George Johnson, of which the following is an abstract:—

The treatment of the collapse of cholera by the hypodermic injection of chloral hydrate has been, so far, comparatively successful. The Government of India have published reports on the subject in their *Gazette* of February 14, 1874. The personal experience of the writer shows that the diarrhœa is perfectly painless, and the vomiting unattended with nausea. The pulse is at first hard and then small before ceasing to be felt. Meanwhile, the heart is contracting forcibly, showing there is no tendency to syncope. The cramps in the voluntary muscles cause the real pain in cholera. The voice is squeaky before it becomes sepulchral. There is suppression of urine. As a rule, there is no loss of consciousness. Great thirst is always present. The comparative rapidity with which persons who survive an attack generally regain their health tends to prove that no very serious permanent changes have taken place, either in the blood or intestinal canal. When water and oxygen can get to the blood, it performs its functions properly, and the epithelium is not apparently thrown off from the intestines to any great extent during life. The symptoms of collapse can be explained, chiefly by the experiments of Brown-Séquard, by great irritation of the sympathetic nervous system. The morbid influence of cholera exercises, probably, a stimulating action on the vaso-motor centres, producing increased heart-action, contraction of the muscular walls of all the arteries, and, at first, augmented blood-pressure. Dr. Parkes has shown the frequency of copious micturition of limpid urine in the early stage. This may be intimately related, according to Traube, to high arterial pressure. The heart contracts forcibly, but cannot dilate normally, its muscular walls being spasmodically affected. The hyperactivity of the vaso-motor centres is so great that the inhibitory or dilating action of the vagus on the heart is not allowed to control it. The left heart gets very little blood from the lungs on account of the contracted pulmonary arterioles not letting it pass, so can only send that little into the arteries; hence the small pulse in the latter stage. The right heart cannot pump the blood, forced into it by the gorged vena cava, into the lungs, and is therefore full, and found so after death. The gorged systemic veins apparently cause the blue colour of the face and skin. The peculiar choleraic voice is not due to want of air passing into and out of the lungs. It is presumed to be caused by the abnormal condition of the nerves which supply the larynx. The cramps may be caused by the cutting off of the blood-supply to portions of the muscles by the contracted state of their arterioles. Dr. C. B. Radcliffe states that contraction of muscle is a temporary death. It is, in fact, an imperfect *rigor mortis*, which is seen strongly marked in persons who die in collapse. The vomiting is apparently caused by the irritated state of the nerves supplying the stomach. The evacuations from the bowels may be the result of transudation from the distended nervous radicles of the portal system. Many consider it to be a true secretion, and not a transudation, but this may be left an open question. The vomiting and purging seem to be of secondary importance. It is the vaso-motor centres that are producing asphyxia by their action on the heart and lungs, and to these our whole attention should be directed. The urinary bladder is generally contracted "to the size of a walnut." Abortions frequently occur in pregnant women, the fœtus being often expelled alive, indicating the spasmodic contraction of the uterus as the cause. The perfect consciousness of the patient during the attack makes it probable that there is no tendency to real syncope. It is presumed that there is spasm of all the arteries of the body, and that the cause of death is asphyxia. To overcome this, pure sedatives, which soothe the irritated nerve centres, and so put a stop to spasms, are recommended. It is of no good giving medicines by the mouth, as they are generally rejected at once. They must therefore be introduced subcutaneously. Practically, the best agent is chloral hydrate, which is a powerful sedative without exerting any primary stimulating action. The strength of the solution should be one part of chloral in ten of water. Ten grains in one hundred minims of water will generally suffice, put under the skin of the arms or legs in four or five different places. If the solution is stronger than this it will probably cause ulceration. The patient generally craves for cold water, and this may be given in any quantity; but no opium or stimulants are to be given during collapse. If reaction does not set in within half an hour, the injections may be repeated. The secondary fever is probably a condition allied to heat apoplexy, in which there is relaxation of the arterial walls, the result of exhaustion. In this state, experience has shown that the exhibition of quinine, with stimulants and tonics, is the best treatment.

The President thought the hypodermic plan good in such a case, but that the solution of chloral hydrate would require to be well diluted.

Dr. Fothergill thought the symptoms went to show that the malady was connected with the vaso-motor system, producing contraction of the arteries and accumulation of the blood in the veins. The treatment suggested was founded on physiological notions.

Dr. Sankey referred to Mr. Durham's researches with regard to the condition of the brain in sleep. As chloral hydrate acted as a narcotic, it probably induced contraction of the vessels; but here it was given for an opposite condition.

Dr. Althaus said this theory of cholera was not new; it had been advanced by Eulenburg. Neither was it Brown-Séquard who discovered the functions of the sympathetic, but Claude Bernard. The subcutaneous plan of giving medicine was the only one available in cholera. Eulenburg had tried morphia in this way with fairly good results, even though opium had a bad name in cholera. Its exhibition in this way was always followed by elevation of the surface-temperature, even in collapse.

Dr. Leared asked if chloroform suited as well as chloral hydrate?

Mr. Holmes did not rise to speak to the question, but rather

on the nature of the paper. It rested on certain cases, but it was a pity no tabular statement of these accompanied it, especially as to the total number of cases treated, the period of the epidemic, the leading symptoms, and the results. The author had only dealt with a part of the question.

Dr. Fayrer said he had seen much cholera, and he had also seen something of Dr. Hall's work. He considered this paper to be one of the best he had read or heard on the subject, and he believed the author had pointed to the true theory of the causation of cholera. The description was exceedingly accurate. Whether hydrate of chloral was the only true remedy he could not say, nor could he say that this theory was the right one; but at all events he thought they were both in the right direction.

Surgeon-Major Wright thought the hypodermic method the only plan in such cases. He had himself used it, but not for chloral.

Mr. Sedgwick had suggested the hypodermic method, and probably chloral would prove a good remedy to use, but that remained to be seen. A contracted bladder was to be found in other maladies besides cholera, so also of suppression of urine with no uræmia. He thought the condition due to paralysis of the abdominal sympathetic.

Dr. L. Brunton said contraction of the systemic and pulmonary arteries would account for many of the symptoms, including the feeling of asphyxia, but not all. There was probably also paralysis of certain parts of the nervous system. The flow from the alimentary canal could not be accounted for on the theory of contraction; that required complete paralysis of all the nerves going to the alimentary canal. Collapse from a blow gave rise to many of the symptoms of choleraic collapse, and in this there was vascular or venous dilatation. For contraction of the arteries the injection of chloral would do good, but for the dilated abdominal veins something more would be required. Probably digitalis would effect the end in view.

Mr. Clover thought it would be better to give chloroform at once if it could be given regularly and safely, and described an apparatus recently invented with this view.

Dr. Thin, who had seen a good deal of cholera in China, thought the value of the paper depended mainly on the number of recoveries. It was important to know the stage of the epidemic, since at the beginning almost all die, whilst towards the end most survive.

In reply, Mr. Hall said the cases occurred at the beginning of the epidemic, and he read an account of a very severe case so treated which had recovered. He only gave cold water to drink; no stimulants or opium.

## MEDICAL NEWS.

Queen's University in Ireland.—On Wednesday, October 14, the following degrees in Medicine and Surgery, and diplomas in Midwifery, were conferred by Sir Dominic Corrigan, Bart., M.D., Vice-Chancellor of the University:—

*Doctors in Medicine.*—October, 1874—First Honour Class: P. Johnson Freyer, B.A., Galway; William John Le Grand, Cork; Charles James Plumer, Belfast. Second Honour Class: Joseph Henry, Galway; Joseph Parker, Belfast. Upper Pass Division: Arthur Robert Campbell, Belfast. Also Passed: James Franklin Allen, Cork; Hugh de Vaux Balbirnie, Belfast; John J. Blackall, Cork; Ludlow Tonson Colthurst, B.A., Cork; Maurice C. Daly, B.A., Cork; William Graham, Belfast; James Guthrie, Belfast; William Jennings, Cork; William Joseph B. Lyons, Belfast; Henry M'Clure, Belfast; Charles Ferdinand Marks, Galway; Samuel Edgar Martin, M.A., Belfast; Thomas Neville, Cork; Norman Pollock, Belfast; James Ross, Belfast; Michael Richard Ryan, Cork; William Savage Speer, Belfast; John Monteith Warren, Galway. June, 1874—John Adderley, Cork; William Edwards Breton, Cork; William Brooke, B.A., Galway; Charles Cooper, Cork; James Crofts, Cork; William Davis, Galway; Alexander Dempsey, Galway; Gerald Fitzgerald, Cork; John Philip Greany, Cork; Christopher Gunn, Cork; Charles A. Harvey, B.A., Cork; Thomas Loane, Cork; David M'Coubrey, Belfast; William M'Iver, Belfast; Timothy Mullane, Cork; Michael Munro, Belfast; P. P. Fenelon O'Connor, B.A., Galway; William Ross, M.A., Belfast; William M. Rosten, Galway; Robert Tidbury, Cork.

*Masters in Surgery.*—October, 1874—James Franklin Allen, Cork; Hugh de Vaux Balbirnie, Cork; Robert Talbot Beamish, M.D., Cork; Albert J. Clapp, M.D., Cork; James Crofts, M.D., Cork; Maurice C. Daly, B.A., Cork; P. Johnson Freyer, B.A., Galway; John Philip Greany, M.D., Cork; J. Wilson Hamill, M.D., Belfast; William Jennings, Cork; William John Le Grand, Cork; Henry M'Clure, Belfast; Thomas Neville, Cork; Joseph Parker, Galway; Norman Pollock, Belfast; Michael Richard Ryan, Cork; William Savage Speer, Belfast; Robert Tidbury, M.D., Cork; John Monteith Warren, Galway. June, 1874—James Moran, B.A., M.D., Cork; Charles J. M'Cartie, M.D., Cork; John James Morris, M.D., Galway; John Adderley, Cork; William Edwards Breton, Cork; Christopher Gunn, Cork; Charles A. Harvey, B.A., Cork; Thomas Loane, Cork; David M'Coubrey, Belfast; Timothy Mullane, Cork; P. P. Fenelon O'Connor, B.A., Galway; William Ross, M.A., Belfast.

*Diplomas in Midwifery.*—October, 1874—James Franklin Allen, Cork; John J. Blackall, Cork; David Graham Browne, B.A., M.D., Belfast; Ludlow Tonson Colthurst, B.A., Cork; Maurice C. Daly, B.A., Cork; Richard J. Drury, B.A., M.D., Galway; P. Johnson Freyer, B.A., Galway; J. Wilson Hamill, M.D., Belfast; Wm. Jennings, Cork; Wm. John Le Grand, Cork; Henry M'Clure, Belfast; Thomas Neville, Cork; Norman Pollock, Belfast; Wm. Savage Speer, Belfast. June, 1874—James Moran, B.A., M.D., Cork; John Adderley, Cork; Wm. Edwards Breton, Cork; James Crofts, Cork; John Philip Greany, Cork; Christopher Gunn, Cork; Charles A. Harvey, B.A., Cork; David M'Coubrey, Belfast; Wm. M'Iver, Belfast; Timothy Mullane, Cork; P. P. Fenelon O'Connor, B.A., Galway; Wm. Ross, M.A., Belfast; Robert Tidbury, Cork; Charles H. Haines, B.A., M.D., Cork; James Magill, B.A., M.D., Cork.

*Exhibitions Awarded at the Second University Examination in Medicine.*—John J. Whelpley, Cork (first), £20 a year for two years; Arthur A. Woods, Belfast (second), £15 a year for two years.

*Note.*—In the above lists "Cork" denotes Queen's College, Cork; "Belfast," Queen's College, Belfast; and "Galway," Queen's College, Galway.

King and Queen's College of Physicians, Ireland.—At the usual monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, October 13, 14, and 15, 1874, the following candidates passed for the licence to practise Medicine:—

| | |
|---|---|
| Campbell, Colin George. | Warren, Michael Aloysius. |
| Colgan, Henry. | Weddick, John. |

The licence to practise Midwifery was granted to—

| | |
|---|---|
| Campbell, Colin George. | Weddick, John. |
| Chatterton, William. | Wybrants, Jonathan. |
| Warren, Michael Aloysius. | |

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 15:—

Buckland, Alfred George, New Zealand.
Steavenson, William Edward, Addlestone, Surrey.

The following gentleman also on the same day passed his primary professional examination:—

Prowse, William Byass, London Hospital.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Cameron, Hector C., M.D., F.F.P.S. Glasg., C.M.—Surgeon to the Royal Infirmary, Glasgow.

Charteris, M., M.D., L.R.C.S. Edin.—Physician to the Royal Infirmary, Glasgow.

Dickson, Hanmer, M.B., M.C. Edin.—Senior Clinical Assistant at St. Luke's Hospital.

Dunlop, James, M.D., F.F.P.S. Glasg.—Surgeon to the Royal Infirmary, Glasgow.

Fenn, Ernest Harrold, M.R.C.S. Eng.—Senior House-Surgeon to the Middlesex Hospital.

Hammerton, G. A., M.R.C.S. Eng., L.S.A.—Resident Assistant Medical Officer and Dispenser to the Infirmary, Prince's-road, Lambeth.

Iver, Philip Addis, L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer for the Iver District of Eton Union, Bucks.

Johnston, John, M.B., C.M., L.M. Edin.—House-Surgeon to the District Hospital, West Bromwich.

Lammiman, Cleland, L.R.C.P. Lond., M.R.C.S. Eng.—House-Surgeon and Secretary to the Tunbridge Wells Dispensary and Infirmary.

Owen, Robert Edward, M.R.C.S. Eng., L.S.A.—Medical Officer and Public Vaccinator for the Anglesea No. 1 District of Bangor and Beaumaris Union.

Smith, A. Wood, M.D., F.F.P.S. Glasg.—Physician to the Royal Infirmary, Glasgow.

### BIRTHS.

Bryant.—On October 20, at 53, Upper Brook-street, Grosvenor-square, the wife of Thomas Bryant, Esq., of a daughter.

Dukes.—On October 16, at Rugby, the wife of Clement Dukes, M.B., B.S. Lond., of a son.

Griffith.—On October 17, at 9, Lupus-street, South Belgravia, the wife of G. De C. Griffith, L.R.C.P. Lond., M.R.C.S. Eng., of a daughter.

Jones.—On October 13, the wife of A. Orlando Jones, M.D., of a son.

Morice.—On September 21, at Simla, the wife of John Charles Morice, Civil Surgeon, of a daughter.

Pitt.—On October 17, at Malmesbury, the wife of Charles Wightwick Pitt, M.R.C.S., of a son.

Steele.—On October 19, at the Superintendent's House, Guy's Hospital, the wife of J. C. Steele, M.D., of a son.

### MARRIAGES.

Angell—Coleman.—On October 15, at St. James's, Piccadilly, Thomas William Angell, Esq., to Helen Cordelia, fifth daughter of the late Thomas Coleman, M.D.

BADCOCK—GRIFFITHS.—On October 6, at the parish church, Upper Stondon, Beds, John Henry Badcock, M.R.C.S. Eng., eldest son of Benjamin Badcock, Esq., of Abingdon, to Rebecca Elizabeth, only daughter of Thomas Griffiths, Esq., of Stanwell Moor, Staines.

BARNES—SNELL.—On October 15, at St. Mary's, Stoke Newington, Edgar G. Barnes, M.D. Lond., of Eye, Suffolk, to Emma Elizaboth, third daughter of the late James P. Snell, Esq., of Holloway.

BELL—NUNES.—On October 15, at St. John's Episcopal Church, Edinburgh, Lieutenant Laurence A. Bell, R.N., third son of Benjamin Bell, F.R.C.S., of 8, Shandwick-place, Edinburgh, to Tryphena Mary Melvill Nunes (*née* Heisch), of 2, North Manor-place, Edinburgh.

BRIETZCKE—SMITH.—On October 14, at Edinburgh, Henry Brietzcke, L.R.C.P., M.R.C.S., eldest son of Edmund Isham Brietzcke, Esq., to Helen Kate, eldest daughter of the late David Smith, Esq., of Jamaica.

COLLINS—RICHARDSON.—On October 14, at St. Peter's, Brighton, James Collins, Esq., of Stonehouse-terrace, Lewisham High-road, to Harriet Louisa, daughter of Charles Richardson, M.D.

EDMONSTON—COFFIN.—On October 19, at Kincardine Church, Blair Drummond, Perthshire, Thomas Edmonston, youngest son of Lawrence Edmonston, M.D., Halligarth, Shetland Isles, to Mary, second daughter of Amory Coffin, M.D., Aiken, South Carolina, U.S.A.

GIBB—LOCKIE.—On October 20, at 11, Crown-circus, Dowanhill, Glasgow, Robert Shirra Gibb, M.B., C.M., Boon, Lauder, son of G. G. S. Gibb, Esq., of Cults, Aberdeenshire, to Christian, daughter of the late Andrew Lockie, Esq., West Morriston, Berwickshire.

GORDON—HORNE.—On August 14, at Enon, Natal, John Gibson Gordon, M.B, second son of Major-General N. J. Gordon, late H.E.I.C.S., to Margaret Colvin Horne, third daughter of the late Major James Murray Horne, Listowel, co. Kerry, Ireland.

HOPCROFT—BOWIE.—On October 15, at St. George's, Campden-hill, W., Thomas Fay Hopcroft, M.R.C.S., to Elizabeth Thurburn, daughter of the late William Bowie, Esq., of Edinburgh.

KERNOT—THOMAS.—On October 20, at Winforton Church, Herefordshire, Charles Noyce Kernot, M.D., of Calcutta, son of C. M. Kernot, M.R.C.S. Eng., Ph.D., of West Cowes, Isle of Wight, to Addaline, third daughter of the Rev. Thomas Kearsey Thomas, M.A., rector of Winforton, Hereford.

NURSEY—COLLINGS.—On October 19, at the Church of St. John the Evangelist, Guernsey, the Rev. P. Fairfax Nursey to Georgiana Elizabeth, elder daughter of the late Adolphus Collings, M.D., Surgeon H.M. 40th Regiment.

MARGOLIOUTH—SMITH.—On October 14, at the Church of Holy Trinity, Brompton, the Rev. M. Margoliouth, LL.D., to Sarah Goulding St. Osyth, widow of the late W. J. Smith, Esq., and eldest daughter of the late Benjamin Goulding, M.D., Founder of the Charing-cross Hospital.

PADMAN—WALKER.—On October 14, at 8, Pitt-street, Portobello, John Padman, M.R.C.S., 22, Bloomsbury-square, London, to Jessie Morton, eldest daughter of Ann Ireland and the late William Walker, Esq., Kirkcaldy.

PARKES—BADCOCK.—On October 13, at St. Helen's Church, Abingdon, Henry McKenzie Parkes, M.R.C.S. Eng., of Abingdon, to Martha, second daughter of Benjamin Badcock, Esq., of Abingdon.

REYNOLDS—NOTT.—On October 14, at St. Mark's, Kennington, John Reynolds, L.R.C.P., M.R.C.S., eldest son of John H. Reynolds, Esq., of Somerleyton-road, East Brixton, to Caroline Harriet, daughter of William Francis Nott, M.R.C.S., of Kennington-park, Surrey.

WRIGHTSON—HAWARD.—On October 1, at Halesworth, Suffolk, Edmund Willington Wrightson, L.K.Q.C.P.I., L.R.C.S.I., second son of the Rev. Thomas R. Wrightson, M.A. Ex-Sch., T.C.D., formerly rector of Culfeightren, co. Antrim, to Louisa Robertson, second daughter of Frederick Haward, M.R.C.S., of Halesworth.

## DEATHS.

BLAKE, JAMES DORE, late of Taunton, at Lorne Villa, Downend, near Bristol, on October 13, aged 69.

DUFFIN, EDWARD WILLSON, M.D., F.R.C.S., at 18, Devonshire-street, Portland-place, on October 17, in his 75th year.

HAVENS, PHILIP, M.R.C.S. Eng., L.S.A., at Donyland Hall, Colchester, on October 13, in his 70th year.

PARRATT, HENRY, younger son of the late James Parratt, Esq., Surgeon Royal Artillery (Ordinance Medical Department), at Melton Mowbray, on October 15, aged 64.

WILLIAMS, ELIZABETH, widow of the late Henry David Williams, surgeon, at Bron Llan, Llanstffraid Glan Conway, on October 11, aged 66.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BELGRAVE HOSPITAL FOR CHILDREN, 1, CUMBERLAND-STREET, ECCLESTON-SQUARE.—Physician. Candidates must be M.R.C.P. Applications, with testimonials, to the Honorary Secretaries, on or before October 31.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN-ROAD.—Assistant-Surgeon. Candidates must be F. or M.R.C.S. or C.M. of one of the Universities of the United Kingdom. Applications, with testimonials, to the Secretary, on or before November 7.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.—Resident Medical Officer. Applications, with testimonials, to the Secretary, at the Office, 24, Finsbury-circus, on or before October 26.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Mr. H. Howells, 58, King-street, Carmarthen.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, BARTLETT'S-BUILDINGS, HOLBORN.—Honorary Physician. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Honorary Secretary, S. Green, Esq., 10, St. Swithin's-lane, E.C., on or before October 27.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Candidates must be duly qualified and registered. Candidates must attend, with their testimonials, by twelve o'clock on October 30.

KENT LUNATIC ASYLUM, CHARTHAM, NEAR CANTERBURY.—Medical Superintendent. Applications, with testimonials, to Mr. J. Callaway, Clerk to the Committee, 43, Margaret-street, Canterbury, on or before October 27.

ROYAL FREE HOSPITAL, GRAY'S INN-ROAD.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before October 28.

ST. GEORGE'S (HANOVER-SQUARE) DISPENSARY, 59, MOUNT-STREET, GROSVENOR-SQUARE.—Resident Medical Officer. Candidates must be M.R.C.S. and L.S.A. Applications, with testimonials, to the Secretary, Mr. G. H. Leah, jun., 73, Park-street, W., on or before October 31.

SEAMEN'S HOSPITAL, GREENWICH.—Visiting Surgeon. Candidates must be F.R.C.S. Eng. Applications, with testimonials, to the Secretary, on or before November 7.

TOWCESTER UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. W. Whitton, Clerk, Towcester, on or before October 26.

UNIVERSITY COLLEGE, LONDON.—Professor of Comparative Anatomy and Zoology. Applications, with testimonials, to John Robson, Esq., B.A., Secretary to the Council, on or before October 31.

YORK COUNTY HOSPITAL.—House-Surgeon. Candidates must be unmarried. Applications, with testimonials, to the Secretary, 5, New-street, York, on or before October 31.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Bedford Union.*—Mr. G. A. Hicks has resigned the Harrold District; area 11,112; population 3200; remuneration by fees.

*Bridlington Union.*—Mr. J. Jackson has resigned the Fourth District; area 9219; population 1178; salary £15 per annum.

*Driffield Union.*—Mr. J. Jackson has resigned the Frodingham District; area 13,330; population 2419; salary £25 per annum.

### APPOINTMENTS.

*Atherstone Union.*—Mark Hales, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Polesworth District.

*Bideford Union.*—Ezekiel Rouse, M.R.C.S. Eng., L.R.C.P. Edin., to the Abbotsham District.

*Kington Union.*—Octavius W. Hoffman, M.R.C.S. Eng., L.S.A., to the Eardisley District.

*Ongar Union.*—Thos. Markby, M.R.C.S. Eng., L.S.A., to the First District.

*Wycombe Union.*—James O. McCreery, L.R.C.S. Ire., L.A.H. Dub., to the Little Missenden District.

THE Town Council of Bridport are about to expend £10,000 in the drainage of the town.

ON his retirement from the Aldermanic Bench, Mr. Jessop, a steel manufacturer, of Sheffield, has offered to the Committee of the Sheffield Hospital for Women a site on which he intends to erect—at a cost of £12,000—a new hospital.

THE OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.—The number of medical students registered at this School is 145; of these 44 are new entries.

ROYAL COLLEGE OF SURGEONS.—The annual registration of gentlemen pursuing their professional studies at the eleven recognised metropolitan hospitals having now been finally closed, and the usual return forwarded to Mr. Charles Hawkins, the Government inspector, perhaps the following may interest not only the teachers but the pupils at the respective schools:—We find that at St. Bartholomew's Hospital the total number of students registered amount to 310, including 106 new entries, 85 second year's men, and 119 third and fourth; Guy's follows with a total of 302, including 81 second, and 136 third and fourth men; University College 288, including 82 first, 64 second, and 142 third and fourth; St. Thomas's 194, including 56 first, 54 second, and 84 third and fourth; St. George's 126, including 37 first, 37 second, and 52 third and fourth; King's College 124, including 25 first, 39 second, and 60 third and fourth; London 111, including 31 first, 35 second, and 45 third and fourth; Middlesex 91, including 31 first, 36 second, and 24 third and fourth; St. Mary's 82, including 30 first, 18 second, and 34 third and fourth; Charing-cross 54, including 20 first, 17 second, and 17 third and fourth; Westminster 29, including 8 first, 11 second, and 10 third and fourth.

THE LONDON HOSPITAL MEDICAL COLLEGE.—PRIZE LIST, SESSION 1873-74.—At the conclusion of the Introductory Lecture by Dr. Samuel Fenwick, the following prizes were distributed by Mr. E. H. Currie, chairman of the House Committee of the Hospital:—Clinical Medicine: £20 Scholarship given jointly by the House Committee and the Medical Council, Mr. V. L. Jones. Clinical Surgery: £20 Scholarship given jointly by the House Committee and the Medical Council, Mr. C. A. Mercier; Honorary Certificate, Mr. R. H. Fox. Clinical Obstetrics: £20 Scholarship given jointly by the House Committee and the Medical Council, Mr. A. G. Buckland; £5 Prize to student who has attended most midwifery

cases for the Hospital during the year, Mr. E. Brumwell. Dressers' Prizes for zeal, efficiency, and knowledge of Minor Surgery, given by House Committee: £15 Prizes, Mr. D. Birtwell, Mr. C. Hoar, Mr. T. Chant; £5 Prizes, Mr. W. Stewart, Mr. W. P. Mears, Mr. J. E. G. Sykes. Buxton Scholarships, given for proficiency in the subjects required for the preliminary examinations: £30 Scholarship, Mr. M. Greenwood; £20 Scholarship, Mr. H. P. B. Burry; Honorary Certificate, Mr. C. F. Hawkins. Human Anatomy: £20 Scholarship given by the Medical Council, Mr. H. L. Palmer; Honorary Certificates, Messrs. J. S. Nickoll and J. Gabe. Anatomy, Physiology, and Chemistry: £25 Scholarship given by the Medical Council, Mr. W. P. Mears; Honorary Certificate, Mr. H. T. Batchelor. Special Certificates awarded to medical assistants for three months' service: F. H. Kyngdon, V. L. W. Jones, C. L. Drew, J. B. Ruddock, G. B. Sincock, W. Lang, G. E. Williamson, H. Habgood, H. E. Walker, W. F. F. Boase, T. P. Harvey, and J. H. Turtle.

Balloon Observations.—At the last meeting of the Académie des Sciences, M. De Fonvielle stated that during a balloon ascent which he had made on September 24 he had verified the exactitude of the expectations held by Mr. Norman Lockyer, that the relative extent of the coloured rays of the spectrum undergo modifications at different altitudes and under different atmospheric conditions. He found at an altitude varying from 1000 to 1500 metres that the blue rays of the spectrum invaded the space ordinarily occupied by the indigo and violet rays, the red rays remaining the same as at the surface of the earth. During the same ascent M. Tissandier also made some thermometrical observations. At 400 metres elevation, in the midst of a cloud which extended from 200 to 600 metres in height, the thermometer marked from 16° to 18° C.; at 600 metres, just above the cloud, the temperature in the shade was 24°; and at 1200 metres it attained its maximum of 28°. At 1600 metres it descended to 21°, and this was the extreme altitude attained during this ascent.—*L'Institut*, October 14.

Chloral for Refractory Horses.—The *Gazette Médicale de Bordeaux* states that a distinguished veterinarian of that town communicated to the medical society the fact that several coachmen had been in the habit for some time past of giving chloral to horses under their care, in order to render them less spirited and more easy to drive. The plan answered its end admirably, for very fiery horses, which could hardly formerly be kept in hand, became, after a few days of this calming regimen, quite gentle and quiet. However well this suited the coachmen, their masters were not a little surprised at the change, and one of them employed a veterinary surgeon to ascertain the cause of this great change. He found the animals exhibiting a tendency to sleep, but failed to discover the cause of this, until one day by accident he found a bottle half full of a solution of chloral. The coachman confessed to having administered a portion of this every morning, and it seems to have become the custom of the degenerate Jehus of the neighbourhood to follow the same practice. This and other facts detailed at the Society show how easy it is to obtain at Bordeaux powerful drugs without medical prescriptions. Alas! Bordeaux is not singular among cities in this infraction of the law.—*Union Méd.*, October 15.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Dr. Weir Mitchell, Philadelphia.*—Enclosure received.

*La Tribune Médicale.*—Any gentleman with a French medical degree would probably have no difficulty in being registered as a practitioner in England; but even without such State authorisation, there is nothing to prevent any man from practising medicine in this country.

*T. R. G. O.*—Dr. William A. Hammond is the President of the New York Neurological Society.

*Zeno.*—The most ancient library on record was formed by Osymandyas, King of Egypt, at Memphis. He was a contemporary of David, King of Israel.

*Quintus.*—The Sanitary Law Amendment Act, 1874, Section 21, requires every urban sanitary authority "to make due provision for the proper cleansing of streets, removal of household refuse from premises, and clearing of earth-closets, ashpits, and cesspools within their districts." A penalty of 5s. a day is incurred by such authority for the non-performance of this work for seven days after notice.

*P. P.*—Dr. Egeling, Government Medical Inspector, Holland.

*O. K. R.*—*Royal London Ophthalmic Hospital Reports*, vol. vi., page 11.

*Westgate.*—January 9 and 10 last.

*D.*—Consumption Hospital, Ventnor, Isle of Wight. The payments, which are small, include everything. The situation is delightful. Address the secretary of the Hospital.

*M.D. and Mr. J. S.*—The "conjoint scheme" did not come on for discussion at the last meeting of the Council of the College of Surgeons. A special meeting for this purpose will take place on the first Tuesday in November.

*Mr. Martin.*—Drs. Arbuthnot and Akenside were buried in St. James's, Piccadilly, where the celebrated Sydenham reposes. Oliver Goldsmith was buried in the ground east of the choir, in the little vestry beneath the organ gallery, in the Temple Church.

*M.*—Professor Turner's lectures at the College of Surgeons will take place in the spring of the ensuing year. Professor Huxley was not admitted a member of the College until 1862.

*Ad Eundem, Lincoln's-inn-fields.*—The Archbishop of Canterbury has no longer the power of conferring medical degrees.

*F.R.S. Lond. et Edinb.*—The College of Surgeons formerly examined metropolitan and provincial teachers before recognition. Professor Erasmus Wilson, a present member of the Council, was the first to submit himself to the test; he is a honorary Fellow of the College, of which there are three classes—viz., honorary, by examination, and by election. Most of the members of the Council belong to the former class.

*London Hospital.*—Mr. T. Blizard Curling, the late President of the College, is a nephew of the late Sir William Blizard, and a brother of Mr. Curling, of Ramsgate.

*Lithotomist, Birmingham.*—At the time you state it was customary to appoint a "stone-cutter" to the hospitals in London, who might cut also for hernia, but should not hold the appointment of surgeon to the hospital, or, in fact, be denominated surgeon, but simply "stone-cutter and rupture-curer."

*Lindley.*—The portrait of Matthias Lobel, who died in 1615, is scarce. His name is familiar to all botanists, as from it a genus of plants received the appellation of Lobelia.

*Glaucoma, Brighton.*—The first public institution in this kingdom for the treatment of ophthalmic diseases was established by Dr. John Richard Farre, in conjunction with Mr. J. C. Saunders.

*R. R., Brighton.*—

"Onward he steps; disease and death retire,
And murmuring demons hate him, and admire."

The lines will be found in Darwin's "Botanic Garden," canto ii.

*Raheare, Smithfield.*—John Freke, then Assistant-Surgeon to St. Bartholomew's Hospital, was previously Serjeant-Surgeon to Queen Anne.

*Mr. Archibald Yorke.*—The medium duration of life is—in Russia, about twenty-one years; in Prussia, twenty-nine; in Switzerland, thirty-four; in France, thirty-five; in Belgium, thirty-six; and in England, thirty-eight years.

*A Collector, Pimlico.*—Cruikshank on the Absorbents. There is a painting of him in the College of Surgeons. Mr. Thomas, a former president, married his daughter.

*Coffee for the Army.*—M. Doyen laments the loss of the residue of the coffee which remains after 20 per cent. has been dissolved by coction, and affirms that there is in addition 40 per cent. of alimentary material, besides the 35 per cent. of woody and indigestible stuff. In order that soldiers may have the full benefit of their coffee ration, he has the roasted berries ground into an impalpable powder, which is then slightly moistened, combined with twice its weight of sugar, and pressed into tablets like chocolate. These are dried, and wrapped in tinfoil, and the coffee ration thus prepared may be used very speedily; for if cast into boiling water the coffee is ready. Precious time and the necessity of having coffee-mills are thus saved.—*Causeries Scientifiques.*

### The Sleeping Sickness of the West Coast.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The first intimation is the swelling of the glands about or around the neck, accompanied by a gradual inclination to sleep, which increases, and the person so affected will fall to sleep at all times and in all places, no matter what he may be doing—working, eating, walking, talking, or anything else,—only waking at short intervals. Sometimes the body swells in the progress of the disease, and at other times in its first stage. The skin becomes dry and dusty, the strength gradually decays, and the most massive frame becomes reduced. This continues for six or twelve months, more or less. Just before death the person suddenly ceases to sleep; this is always the forerunner of death. So far as I have observed, this is an exact description of the disease, and I have never known a Congo to die from any other. It carries off many natives, and even the Americo-Liberians do not escape it. I am, &c., X.

### Erratum.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the heading of the report of the case of supposed tumour of the cerebellum, page 441, the first word (biliousness) should be in quotation marks; for, of course, I do not suppose the boy's nervous symptoms had anything to do with derangement of his biliary apparatus.

I am, &c., J. Hughlings-Jackson.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Bulletin Général de Thérapeutique—New Jersey Eclectic Medical and Surgical Journal—Humphreys' Paint and Oil Trade and Wholesale Druggist—Boston Journal of Chemistry—New York Druggist—El Anfiteatro Anatomico Espanol—The Porcupine—Canada Medical and Surgical Journal—Canada Lancet—Holloway Press—Chicago Medical Journal.

BOOKS AND PAMPHLETS RECEIVED—

Introductory Address delivered to the Students of St. Mary's Hospital, by Edmund Owen, M.B.—Haviland's Report on the Geographical Distribution of Fever within the Area of the Combined Sanitary Authorities of Northampton, Leicester, Rutland, and Bucks—Ringer's Handbook of Therapeutics, fourth edition—Anderson on Eczema, third edition—Squire's Companion to the British Pharmacopœia, tenth edition—Bennet's Winter and Spring on the Shores of the Mediterranean, fifth edition—Jacobi on Infant Diet—Experimentelle Studien über die Verbreitung der Fäulnissorganismen in den Geweben, von Dr. Anton Frisch—Flückiger and Hanbury's Pharmacographia — Fox's Pathological Anatomy of the Nervous Centres—The Common Frog, by St. George Mivart, F.R.S.

COMMUNICATIONS have been received from—

Mr. E. Owen, M.B., London; The Registrar of Apothecaries' Hall; The Vice-Dean of the London Hospital; The Rev. A. Brinkman, London; Dr. Dowse, Highgate; Our American Correspondent; Mr. P. D. Bennett, West Bromwich; The Secretary of the Royal Infirmary, Glasgow; Dr. De Voogt, Pau; Messrs. Lemon Hart and Son, London; Mr. Enke, Erlangen; Mr. W. B. Wilmot, London; Dr. Garde, Youghal; Mr. J. Spear, Wigan; Mr. H. Dickson, M.B., London; Mr. J. Thomas, Bangor; Mr. Woodcock, Bradford; Dr. T. Scott, Ben Rhydding; Mr. Lyon Playfair, London; Mr. J. Highet, Troon; Mr. H. Pope, Kirkly-over-Clou; Mr. W. J. Cooper, Belfast; Mr. J. Houghton, Liverpool; Mr. F. Gordon Brown, London; Mr. Thomas Holloway, London; Mr. A. Haviland, Northampton; Mrs. Smeathman, Great Missenden; The Rev. P. M. Sankey, Oxford; Mr. Willmore, Stockbridge; Mr. B. Rix, Tunbridge Wells; Dr. Biofrey, Paris; Mr. S. Chippingdale, London; Mr. J. Lambert, London; Dr. Edis, London; Mr. E. H. Fenn, London; Mr. J. W. Hulke, London; Mr. G. Sutton, London; The Registrar-General, Edinburgh; Mr. P. Squire, London; Dr. J. W. Moore, Dublin; Mr. H. Courtenay Fox, Stoke Newington; Mr. W. G. Searson, Manchester; Dr. A. E. Sansom, London; Mr. Lawson Tait, Birmingham; Dr. Diver, Kenley; Sir Edward Hilditch, London; Dr. C. Theodore Williams, London; Mr. K. H. B. Williams, Llandudno; Mr. B. M. Bates, Manchester; Mr. G. F. Kirby Smith, Northampton; Messrs. King, Seymour, and Co., Southampton; Dr. Sparks, London; Mr. Henry Morris, London; Dr. Fayrer, London; Mr. J. Chatto, London; Dr. B. W. Richardson, London; Dr. J. Hughlings-Jackson, London.

## APPOINTMENTS FOR THE WEEK.

*October* 24. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

26. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Mr. P. Y. Gowlland will show a Specimen of a Rare Form of Polypus of the Rectum. Mr. Francis Mason, "A Case of Successful Operation on Webbed Fingers," and "A Case of Primary Infecting Sore on Thigh." Dr. J. Milner Fothergill, "On the Relation of Disease of the Heart to the Diseases of the Respiratory Organs."

27. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Bakewell, "Abdominal Aneurism of unusual size." Mr. Lawson Tait, "Successful Removal of Large Fibro-myoma of the Fundus Uteri." Mr. Barwell, "Recovery after Removal of Foreign Body impacted for twenty months in Female Pelvis."

28. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), 8 p.m. Mr. Jonathan Hutchinson, "On the Reasons for considering Rheumatism a Disease of the Nervous System."

29. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

30. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, October* 17.

### BIRTHS.

Births of Boys, 1214; Girls, 1169; Total, 2383.
Average of 10 corresponding years 1864-73, 2119·7.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 673 | 671 | 1344 |
| Average of the ten years 1864-73 | 660·8 | 649·3 | 1310·1 |
| Average corrected to increased population | ... | ... | 1441 |
| Deaths of people aged 80 and upwards | ... | ... | 46 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 1 | 14 | ... | 1 | 1 | 2 | 2 | 6 |
| North... ... | 751729 | ... | ... | 19 | 4 | 3 | 1 | 3 | 2 | 7 |
| Central ... | 334369 | ... | ... | 16 | 1 | 1 | 1 | 1 | 1 | 5 |
| East ... ... | 639111 | ... | 2 | 53 | 1 | 4 | 1 | 6 | 2 | 9 |
| South... ... | 967692 | ... | 5 | 16 | 1 | 2 | 2 | 6 | 2 | 11 |
| Total ... ... | 3254260 | ... | 8 | 118 | 7 | 11 | 6 | 18 | 9 | 38 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·698 in. |
| Mean temperature | 55·9° |
| Highest point of thermometer | 67·2° |
| Lowest point of thermometer | 46·4° |
| Mean dew-point temperature | 53·9° |
| General direction of wind | S.W. & S.E. |
| Whole amount of rain in the week | 0·58 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 17, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Oct. 17. | Deaths Registered during the week ending Oct. 17. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2383 | 1344 | 67·2 | 46·4 | 55·9 | 13·28 | 0·58 | 1·47 |
| Portsmouth ... | 120436 | 26·8 | 80 | 40 | ... | ... | ... | ... | 0·85 | 2·16 |
| Norwich ... ... | 82257 | 11·0 | 49 | 30 | 65·0 | 48·0 | 54·5 | 12·50 | 0·08 | 0·20 |
| Bristol ... ... | 192889 | 43·3 | 127 | 78 | ... | ... | ... | ... | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 55 | 35 | 62·0 | 43·3 | 52·6 | 11·44 | 0·22 | 0·56 |
| Birmingham ... | 360892 | 43·0 | 295 | 188 | ... | ... | ... | ... | ... | ... |
| Leicester ... ... | 106202 | 33·2 | 59 | 52 | 64·6 | 40·1 | 52·8 | 11·56 | 0·45 | 1·14 |
| Nottingham ... | 90894 | 45·5 | 61 | 34 | 68·4 | 39·9 | 53·7 | 12·06 | 0·24 | 0·61 |
| Liverpool ... ... | 510640 | 98·0 | 390 | 352 | 62·8 | 42·5 | 52·6 | 11·44 | 0·31 | 0·79 |
| Manchester ... | 355339 | 82·8 | 257 | 211 | 67·5 | 40·0 | 53·5 | 11·95 | 0·28 | 0·71 |
| Salford ... ... | 133068 | 25·7 | 105 | 66 | 66·0 | 39·9 | 52·6 | 11·44 | 0·34 | 0·86 |
| Oldham ... ... | 86281 | 18·5 | 73 | 43 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 102 | 76 | 62·0 | 44·0 | 52·6 | 11·44 | 0·48 | 1·22 |
| Leeds ... ... | 278798 | 12·9 | 210 | 134 | 64·0 | 42·0 | 52·8 | 11·56 | 0·38 | 0·97 |
| Sheffield ... ... | 261029 | 13·3 | 173 | 130 | 62·0 | 46·0 | 52·6 | 11·44 | 0·32 | 0·81 |
| Hull ... ... ... | 130996 | 36·0 | 89 | 80 | 64·0 | 36·0 | 51·6 | 10·89 | 0·45 | 1·14 |
| Sunderland ... | 104378 | 31·6 | 64 | 50 | 72·0 | 43·0 | 55·1 | 12·83 | 0·14 | 0·36 |
| Newcastle-on-Tyne | 135437 | 25·2 | 97 | 96 | ... | ... | ... | ... | ... | ... |
| Edinburgh ... ... | 211691 | 47·8 | 131 | 98 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 423 | 250 | 59·7 | 37·1 | 48·8 | 9·33 | 2·21 | 5·61 |
| Dublin ... ... | 314666 | 31·3 | 156 | 149 | 62·7 | 40·0 | 52·4 | 11·33 | 1·01 | 2·57 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5379 | 3536 | 72·0 | 36·0 | 52·9 | 11·60 | 0·52 | 1·32 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·70 in. The highest was 30·01 in. on Sunday evening, the 11th, and the lowest 29·29 in. on Thursday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## CLINICAL LECTURES DELIVERED IN THE MIDDLESEX HOSPITAL.

By J. W. HULKE, F.R.S.

### ON A WOUND OF THE PALM.

Gentlemen,—In wounds of arteries attended with such hæmorrhage as to require ligature, the aphorism so well expressed by the late Mr. Guthrie, and which he so ably illustrated—that "two ligatures are necessary, one on each end of the divided vessel, or one above and one below the wound should the artery not be divided,"—still remains and will remain the rule of practice, subject perhaps to the modification that some surgeons will prefer to completely sever a merely pricked artery, and to twist the discontinuous ends instead of to tie them.

You saw this done a short time ago in the case of a boy in Broderipp ward, who was brought to the hospital with a wound in the forearm made by a broken bottle. He had lost so much blood as to be blanched and nearly pulseless. The skin wound was at the inner side of the forearm, making it most likely that the ulnar was the injured artery. In order to reach the bleeding vessel a tourniquet was placed on the brachialis and the wound enlarged. It was then found that the piece of glass had crossed in front of the ulnar artery without injuring it, and had nearly severed the radial. A wide gaping hole in it was plainly seen. A thread was placed around the vessel above, and another below this, and on removing the tourniquet the bleeding did not recur. He made a good recovery. In the following case you also saw the same practice adopted:—

A man was stabbed through his left cheek with a table-knife, which made a skin-cut one inch and a half long, and passed slantingly downwards into his mouth, deeply notching his tongue. Blood ran so freely from his mouth and cheek that in a short time his clothes were drenched. Whilst an assistant temporarily lessened the bleeding by grasping the cheek between finger and thumb, and by compressing the facial artery against the lower jaw, the wound was enlarged, the severed facial found, and both its ends tied. The gaping notch in the tongue was closed by stitches placed deeply so as to compress the bleeding vessels. The bleeding did not recur; the wounds healed quickly, particularly that of the tongue, and the man, despite his large loss of blood, was quickly well.

Cases such as these might be almost indefinitely multiplied; but there are others, fortunately of less frequent occurrence, where the practice so strongly insisted on by Guthrie cannot be adopted, and deligation of the feeding arterial trunk at a point between the wound and the heart is preferable. Under some circumstances, indeed, the surgeon has no choice but to do this. For instance, an artery opened by a wound or by ulceration may be quite inaccessible. Thus in the later stages of cancer of the tongue, where by extension of the disease to neighbouring structures the lower jaw can be separated from the upper to only a very slight extent, it is often quite impossible to find the bleeding point; and within my recollection in several cases there was no choice but to tie the common carotid. Again, an artery less deeply placed, and not absolutely inaccessible, may yet be so embedded amongst other important structures that an attempt to reach it where wounded may be more damaging than tying the trunk above the wound. Wounds of the palm very frequently exemplify this. The vessels are not large, and therefore are not conspicuous in the wound; they bleed very freely owing to their free anastomoses; the loose tissues about them soon become infiltrated with blood; and they are so bedded between the tendons that where the wound must be enlarged to find the bleeding vessel this can hardly be done without risking the integrity of the hand, and it becomes preferable to tie a main vessel above the wound; and here the choice lies between the radial and ulnar arteries above the wrist and the brachial artery. In the following case recently in Broderipp Ward the latter was selected:—

A man, aged 28, on March 2, in corking a bottle broke it, and a splinter of glass was driven into the inner side of his right palm. The little stab bled so freely that by the time (only a few minutes after the accident) he reached the hospital his clothes were already drenched, and the blood had run down into his boots. The house-surgeon applied a graduated compress, which perfectly stopped the bleeding, and the man, who would not be persuaded to become an in-patient, went home. All went on well during five days, when on the morning of the seventh, on his way to the hospital to have the wound dressed, as he jumped off the foot-board of an omnibus, a fresh and profuse hæmorrhage began. The house-surgeon now put a tourniquet around the arm, and cautiously enlarged the puncture in the palm in search of the wounded vessel. It could not be found. He therefore again methodically applied a graduated compress, and made the patient enter the hospital, which he previously would not do. Three days after this, at 8 a.m., he coughed and felt directly blood running from his hand. He again lost a large quantity. The bleeding ceased when a tourniquet was put round his arm. The compress was removed, the wound cleared of a large clot, the cuticle around it which had become loosened was clipped away, but the wounded vessel would not bleed, nor could it be made to do so by violently kneading the hand and forearm, although the radial and ulnar arteries pulsated strongly.

This is a very frequent circumstance in wounds of arteries. They will not bleed when you want them, and in the absence of bleeding you often cannot tell the point whence the blood has come. Unwilling to tie an arterial trunk at a distance unless absolutely driven so to do, I again renewed the palmar compress, adopting the former precautions of carefully bandaging the fingers, hand, and forearm, and placing long, firm compresses upon the radial and ulnar arteries. The forearm was also flexed at an acute angle on the arm—a posture in which the acute flexion of the brachial artery at the elbow greatly lessens or quite obstructs its channel. Two days later (March 12) a fourth hæmorrhage occurred. It was arrested as before, with a tourniquet, and when the wound was exposed again it would not bleed; it was clean, and not at all sloughy. He was now so weak that I was unwilling to expose him to the risk of a further loss; and therefore, in contravention of the rule not to tie an artery unless there is hæmorrhage actually at the time, I tied the brachial artery, adopting scrupulously the customary antiseptic precautions, and dressed the wound antiseptically. The vessel was secured with very little disturbance of the parts around it. The whole arm, forearm, and hand were now fixed upon a well-padded splint in order to insure perfect rest. The palmar wound was also covered with a light carbolised dressing. An abscess now formed here, and pointed at the root of the ring finger. On the 14th, about forty-eight hours after deligation, the wound in the arm was found to be suppurating; the pus was very fetid, though the antiseptic dressing had not been disturbed. The incision was washed out with a solution of carbolic acid and again antiseptically dressed. Not till the fifth day could pulsation be felt in the radial and ulnar arteries above the wrist. Meanwhile a little fleshy-looking button rose up in the portion over the interspace between the third and fourth metacarpal, and two days later (March 19) it visibly pulsated—it was manifestly a miniature false aneurism. The day after, when the dressings were being changed, it broke, and blood spirted from it in a stream out of all proportion to the size of the little tumour. This was snipped open, and a thread placed above and below it on the small artery from which it arose. From this time there was no further cause for anxiety respecting the palm. The incision in the arm healed slowly; a sinus persisted obstinately over the point where the brachialis had been tied; and I often regretted that I had used a carbolised gut thread and cut it short instead of the old hempen ligature. The wound did not finally close till the middle of April, and even then much hardness remained.

This case, gentlemen, is an example of what too commonly happens in wounds of arteries in this situation. The wound is more often a puncture with a chisel or penknife, or some such small tool, than a gash. It bleeds furiously; the vessel cannot be seen; a compress is applied (often with greater tightness than necessary, and without the precaution of methodically bandaging the fingers and hand, and without securing their perfect immobility with a suitable splint); the bleeding at once ceases. The patient and the surgeon congratulate one another on the good progress of the case. Then, after a few days, blood bursts out, and the palm becomes swollen and infiltrated. The chances of now finding the vessel by enlarging the wound are greatly lessened, and the recurrence of hæmorrhage calls for ligature of the ulnar and radial artery (for it is seldom that ligature of one alone suffices; it has never been enough

within my personal observation), or deligation of the brachial if preferred. In my early professional life, I several times saw my old teacher, the late Professor R. Partridge, tie the brachialis successfully for palmar wounds, and I adopted this practice myself three times with a favourable termination. Later I was led to prefer ligature of both ulnar and radial arteries just above the wrist, and the result in two cases was equally favourable, although, in consequence of extension of cellulitis from the hand into the forearm, the local conditions were less promising; and now I find myself going back to my first practice. After both, I have seen, as here, occasionally a renewal of the bleeding, but it has been much moderated; and, happily, I have not yet found it difficult to deal with, though the larger experience of others forbids me to believe that this will be always the case.

## ORIGINAL COMMUNICATIONS.

# THE PRESENT TREATMENT OF BITES BY DOGS,

### AS BEING UNSOUND IN THEORY, INJURIOUS, AND UNSUCCESSFUL IN PRACTICE.

By JOHN HADDON, M.A., M.D.

Hydrophobia has been of very frequent occurrence of late years, more especially in Lancashire. Those who have witnessed the symptoms which go to form hydrophobia cannot soon forget them, and all who have had experience of its treatment agree that, as yet, treatment is hopeless. Under such circumstances, when medicine in the most skilful hands is of no avail, when the first onset of hydrophobic symptoms is like the death-knell of the unfortunate individual, it seems to me that preventive treatment cannot be too carefully studied or too urgently insisted upon.

The first difficulty met with in the treatment of a bite, is to know whether the dog was mad, or whether there is any danger of the bite having in it the poison we dread. This is a very great difficulty, since cases are on record where hydrophobia has followed bites inflicted by animals which were not supposed to be in the rabid state, because the symptoms of rabies in the dog are not sufficiently well and generally known to make a diagnosis easy.

Dr. Burdon-Sanderson has lately addressed a letter to the *Times*, detailing the symptoms of rabies in the dog according to veterinary teaching.

Now, on looking carefully at the premonitory indications mentioned, the only one which appears at all peculiar to hydrophobia is that the dog bites indiscriminately. That appears to me the only symptom on which we can rely in diagnosis prior to the development of the last stage of the disease. A dog's demeanour may change from any indisposition. It is not uncommon for dogs to eat all kinds of filth; but to find a dog biting indiscriminately is rare, and would seem to be peculiar to, and an early symptom in, rabies.

The present treatment of bites by dogs is the free application of the nitrate of silver to the injured parts; and, seeing that hydrophobia may be caused by bites of dogs not supposed to be mad, this treatment is generally applied to all bites. In the *British Medical Journal* for May 23, 1874, I find the following paragraph:—"In a very able clinical lecture delivered some time since at St. George's Hospital, but recently reprinted in his collected works for private circulation, Mr. Cæsar Hawkins mentions that the late Mr. Youatt told him that a great many persons consulted him after they had been bitten by dogs, and that he always used lunar caustic, which he applied to himself and his servant every time, and in round numbers to perhaps 400 others, and that out of this number one had died of fright, but none of hydrophobia. The early and complete application of caustic to the part bitten is the one only means which can be relied on."

That is the opinion of Mr. Youatt, as delivered to Mr. Cæsar Hawkins, accepted and repeated by Mr. Hawkins, and propagated by the *British Medical Journal* as correct. What I shall endeavour to prove is, what I believe—viz., that the treatment of bites by dogs with lunar caustic is unsound in theory, injurious, and unsuccessful in practice. There are few methods of treatment which have not someone who is regarded as an authority for their originator. We can trace the reputation of mercury as a cholagogue to that prince of irregular practitioners, Paracelsus. On the same principle we find ipecacuanha in mixtures when any cough has to be combated.

And so, because Mr. Youatt said that lunar caustic was the proper thing to apply to the bites of dogs, lunar caustic has been applied most unsparingly by practitioners, regular as well as irregular; and this method of treatment has become so general that to depart from it is somewhat difficult.

The treatment is founded on a theory which we gather from the following extract written by Mr. Youatt, the veterinary surgeon:—"The eschar formed by the nitrate of silver is hard, dry, and insoluble. If the whole of the wound has been exposed to its action, an insoluble compound of animal fibre and the metallic salt is produced, in which the virus is wrapped up and from which it cannot be separated. In a short time the dead matter sloughs off, and the virus is thrown off with it."

That is the theory on which the treatment by lunar caustic is based. It presupposes that the virus is lying in the wound; it assumes that the compound formed on the application of the salt contains the poison, that it is then in an insoluble state, and so innocuous; and lastly, that when this compound separates it takes all the poison with it. I am not aware that any proof has been offered of the truth of these assumptions. Allowing that the whole or a part of the virus remains in the wound when the nitrate of silver is applied, it forms a substance which is certainly dry, but we have no evidence to show that the virus is in it in an insoluble form and rendered innocuous. On the other hand, it is possible that we may shut in some of the virus at the back of this dry layer, and so give it the best possible opportunity of being absorbed, and of producing the very evil we ought to guard against. Such being the facts, I think I am entitled to say it is an unsound theory.

That it is injurious in practice, I appeal to the experience of all who have used it. I have seen wounds caused by dogs while in a temper or in fun, which were small, and would have healed up quickly, made into very troublesome sores, without, I believe, any gain to the patient. Should such a wound happen to be in a joint, and the nitrate of silver used, the cure would certainly be worse than the disease; and were it only to save such cases from unnecessary suffering, I think the present treatment of bites by dogs ought to be reconsidered.

That the treatment by lunar caustic is unsuccessful in practice, I have only to point to results. I might cite cases without end where the freest application had been made within a few minutes after the bite, in which hydrophobia occurred in due course, and soon terminated in death. And I would ask—Can a remedy which has been of universal application for at least a generation in this particular class of cases, be trustworthy when, in spite of its use, hydrophobia not only continues to exist, but increases rapidly, and is at present causing quite a panic amongst the public? Surely a quarter of a century is sufficient to have used lunar caustic and found it of no avail.

But while we would endeavour to shake the general faith in this practice, we must also attempt to substitute some other treatment, if possible, on sounder principles. With this view we may take a short survey of the subject. Rabies is admitted to be a contagious disease, propagated by the bite of the rabid dog, or the contact of its saliva with a raw surface. In the case of a bite, if let alone it heals like any other wound. Of persons bitten by rabid dogs it is computed that about 4 per cent. have hydrophobia, which shows itself in a varying time, but generally about six weeks after the bite. There is thus a long incubation period, and death generally takes place on the third day from the commencement of hydrophobic symptoms.

There is at present no means known by which the disease can be cured. Death is inevitable when the disease is once developed; and so in the meantime our efforts must be directed to the preventive treatment.

What, then, can be done to prevent the disease? Reasoning from analogy, and with the accumulated experience regarding epidemics of small-pox and such-like infectious diseases, we are at once directed to the stamping-out process. It will be admitted by those best qualified to judge, that, were we able to enforce and carry out perfect isolation with regard to small-pox, the disease might never destroy and disfigure our population, as it regularly does. If so, the same measures might much more certainly render hydrophobia a disease of the past. Rabies and small-pox have many points alike as regards their propagation. Both are the result of infection. The infected individual can convey it to another—in the case of small-pox, probably by the exhalations and excretions of the body; in that of rabies, only by the saliva touching a raw surface. Thus, of the two diseases, small-pox is the more subtle and

more easily spread; and thus rabies ought to be so much the more under our command. The period of incubation of rabies in the dog being known, Parliament might determine that all dogs in this island should be confined separately beyond that period, and that imported dogs should undergo a regular quarantine. In that way, if, as is generally believed, rabies is propagated by contagion alone, there would be an end to hydrophobia. That seems to me what may be termed the radical treatment, and the only rational means of rendering bites by dogs less dangerous, and of depriving them of the dread with which at present they are deservedly associated. A proposal has been made to file down the large teeth, so as to make them blunt. In this way it is asserted the dog is rendered harmless, being unable to break the skin. I very much doubt this statement; but, were it true, the saliva still has the poison, and the animal is a source of infection and dread: besides, there is little chance of this suggestion being universally acted upon.

If measures are not adopted to stamp out rabies in the dog, then we must endeavour to find a means of treating the bite in such a way as to render it, if possible, harmless. When we consider this subject, difficulties assail us which seem well-nigh insurmountable, and make us doubtful of ever attaining the desired end. When we reflect on the rapidity with which substances are absorbed, and travel the whole round of the circulation, we are inclined to question the efficacy of any treatment after the bite is made. It is, however, possible that the peculiar poison of rabies may have a slow rate of absorption, and so give us some chance of removing it from the wound, or rendering it by some means innocuous. Hippocrates of old, in his wisdom, which we all admire, said that the physician must "have two special objects in view with regard to diseases—namely, to do good or to do no harm." That is a maxim the ventilation of which might be of eminent service, even in this enlightened age, in general practice, and it is particularly appropriate when we come to consider what must be done with the bite of a mad dog.

Tetanus is a disease which, in its symptoms, has a peculiar resemblance to hydrophobia. Spasms occur in each on the slightest irritation of any of the organs of sense; both are peculiarly diseases of the nervous system; and in neither on post-mortem examination is there anything very definite to account for death. Tetanus we know to be caused by a wound, more especially by a wound which does not heal quickly. Hydrophobia is not supposed to be caused by the wound, but by the saliva, in which some virus exists. Nevertheless, it would seem right that we should not follow any treatment which can retard the healing process.

The principal indications, then, for the treatment of a bite are:—

1. As soon as possible to remove the virus from the wound or render it innocuous.

2. To get the part healed as speedily as possible.

With regard to the first indication, so soon as the bite is inflicted it is not likely that a surgeon can be at hand, and so it would be well for the patient to suck the parts vigorously, if they are within reach. That will encourage bleeding, and tend to remove any saliva that may be in the parts. A ligature between the wound and the heart might also be applied to encourage bleeding. When the surgeon is consulted I would advise, when the dog is known to be rabid, excision of the bitten parts where practicable; afterwards, and where excision cannot be performed, I would wash out or syringe the parts freely with a saturated solution of carbolic acid in very hot water, and get the wound healed as soon as possible.

By that means I think we may hope to remove by excision or destroy by the carbolic acid any virus in the wound, and at the same time expedite the healing process. By such a method of treatment we can do no harm, and, from the well-known properties of carbolic acid, we may hope that it will do some good.

Eccles.

## MIDWIFERY NOTES:
## TWO CASES OF RUPTURED UTERUS.

By ALFRED S. PERKINS, M.R.C.S.E., etc.

*Case* 1.—I was summoned at 7.30 p.m. (June 17) to see Mrs. A. D., aged forty-five. She was in her seventh confinement. Her previous labours had all been lingering, but otherwise satisfactory. Present labour commenced at 8 a.m. on the 16th, but owing to the tedious character of her previous labours I was not sent for till the before-mentioned time.

On my arrival the midwife informed me that the "waters" had been draining away for about forty-eight hours, and that the labour pains had been very strong till about two hours previously, when they had suddenly ceased, the patient at the same time complaining of severe pain over the uterus and of a feeling of great faintness. The midwife examined, and finding that the head, which had before been well within reach, had completely receded, at once sent for me.

I found the patient with a pinched anxious expression, looking very blanched, and complaining of a severe, sharp, continuous pain felt over the whole abdomen, but most intense a little above the umbilicus. There was constant hiccough and a feeling of sickness, but no actual vomiting; pulse 120, and very small; respiration hurried and jerky.

On placing my hand upon the abdomen I could feel very distinctly the fœtus, which seemed to lie above the umbilicus, but I failed to distinguish the outline of the uterus. There was a large quantity of blood in the bed, and on making a vaginal examination I found more in the passage. It was impossible to find any presentation till I passed my hand within the uterus (which was easily effected), when I found the fœtus partly in the uterus and partly projecting into the abdominal cavity through a rent in the anterior wall of the uterus, which felt very extensive. Some coils of intestine passed into the uterus through the rent. At once I brought down the feet, but the head not passing readily on account of slight narrowing of bony parts, completed delivery by the forceps. The fœtus (male) was in a putrid state. The placenta came away in a few minutes, and there was very little external hæmorrhage.

In the way of medical treatment I gave brandy and ammonia all the time, but she gradually sank, and died twenty minutes after delivery, and about five hours from the time of the rupture. No post-mortem was allowed.

*Case* 2.—I was called at 11.30 p.m. on August 12 to see Mrs. P., aged twenty-eight, in her fourth confinement. Her previous labours had been good. On my arrival the midwife stated that the patient had been having feeble pains since the previous day (11th), that the "waters" came away at 11 a.m. of that day (12th), and that subsequently the head presented. The pains remained slight until 10 p.m., when there were three sudden, short, severe pains, the patient screaming out, and saying that something had given way and that she had distinctly felt the child go back. The midwife had then examined her, and being unable to find the head, became alarmed, and sent for assistance. I found the patient pretty cheerful, not complaining of much pain, but of a great sense of fulness over the stomach—as she said, "rising up as though it would choke her." Placing my hand on the abdomen, I could feel the head of the fœtus directly over the symphisis pubis. Per vaginam I could not feel any presentation till I introduced my hand. I found also a coil of intestine and a rent of the upper and posterior part of the uterus. A foot was brought down, and the fœtus delivered to the head, which was hydrocephalic. I then perforated the fœtus behind the right ear, letting out a large quantity of fluid, and completed delivery with the crotchet. The fœtus (female) was of fair size. There were no uterine contractions during the delivery, but the placenta came away at once without unusual hæmorrhage. On manipulation I could not clearly distinguish the uterus. I put on a binder, and no external hæmorrhage occurring for an hour, I went away; the patient being faint and exhausted, but not in any marked pain. During the night, however, she passed some blood. She had brandy and ammonia frequently during and after delivery.

13th.—8 a.m.: Comfortable and with but little pain. Pulse 120; respiration hurried. Passed catheter, but very little urine. Ordered beef-tea and brandy frequently, and half-grain doses of opium every four hours. Noon: Suddenly attacked with violent sickness and severe pain over the stomach. Abdomen tympanitic, and much pain over and about uterus. Hot stupes to abdomen. To take effervescing mixture and opium and to suck ice.

14th.—Passed an easy night. Only sick once during the day.

15th.—No sickness, but in a much lower condition. Tympanites diminished. But little uterine pain, even on pressure. From this time she got worse and worse, becoming delirious and ultimately insensible, and died at 5.30 a.m. of the 18th, the rupture having occurred at 11 p.m. of the 12th.

No post-mortem could be obtained.

ON

# GELATINE DISCS CONTAINING ALKALOIDS FOR HYPODERMIC ADMINISTRATION.

By A. ERNEST SANSOM, M.D. Lond.,
Physician to the North-Eastern Hospital for Children, and Assistant-Physician to the London Hospital.

THERE can be no doubt of the value of the hypodermic injection of solutions containing salts of the sedative alkaloids in many conditions of pain, and very probably such a method of administration of remedies only waits a further development. Certain of the difficulties connected with the operation are now reduced to a minimum: syringes are well constructed, and, by improvements in the needle-pointed tubes, punctures are rendered almost painless. It has always seemed to me, however, that some objections stand in the way of the more extended employment of hypodermic medication. The first is that the solutions do not keep well, and in keeping vary in their strength. A practitioner requiring his solution in an emergency, finds it, after having left it for some time unused, mildewed and useless. A second objection is that the solutions are necessarily cumbrous to carry about. Chiefly, however, the objection is this: the cases calling for hypodermic treatment are sudden, the solution is not at hand, and by the time it is procured the great opportunity is lost.

The idea of a plan of overcoming these difficulties was suggested to me by the use of the gelatine discs containing atropine employed for obtaining dilatation of the pupil. At my request Messrs. Savory and Moore prepared some gelatine discs containing (*a*) morphia acetate one-sixth of a grain, (*b*) atropia sulphate 1-120th of a grain in each. These are immediately soluble—one in two, two in three, drops of warm water,—and I have found the injection of the solution thus made to be attended with the best results. The discs have also been employed in the wards of the London Hospital, and Mr. Shapley, one of the resident medical officers, informs me that they have succeeded perfectly well.

The method I adopt of dissolving is to place the disc or discs in a teaspoon with two or three drops of water, and then warm over a spirit-lamp or candle. Solution takes place in a few seconds, and the fluid is at once taken up into the syringe and injected. It is obvious that by adopting these means, providing that the discs be carefully prepared, there is absolute certainty as to dosage. There is no doubt that the discs in a dry state will keep good for an unlimited period. No difficulty can be experienced as to having the hypodermic medicaments at hand, for the whole series—containing salts of morphia, atropia, caffeine, apomorphia, strychnia, ergotine, etc.—can be carried in an envelope which occupies scarcely any appreciable space in the smallest sized pocket-book.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## THE MIDDLESEX HOSPITAL.

### OPERATION DAY, SEPTEMBER 23, 1874.

[THE following notes were furnished by Mr. Arthur Tomes.]

### CASES UNDER THE CARE OF MR. HENRY MORRIS, LATE HOUSE-SURGEON.

*Case* 1.—*Removal of a Vascular Growth from the Urethra.*

The patient, a woman, aged sixty-six, was admitted some time previously, complaining of frequent calls to micturate, of pain during the act, and the occasional passage of blood with her urine. There was no difficulty in passing the water, but she complained of pain also in loins and thighs of an aching character. Stone or some vesical growth was suspected, and she was accordingly sounded. A microscopical examination of the urine revealed blood-corpuscles, pus, vesical epithelium, but no crystals. A careful vaginal examination was made: the uterus, though small, was found to be free from disease; just within the urethral orifice was a minute soft vascular papillary growth, which seemed to surround, more or less, the canal. This was apparently at the root of all her troubles, and was destroyed by the successive applications of a saturated solution of chromic acid. The urine for some time afterwards was drawn off by a catheter in order that it might not irritate the raw surface left after the separation of the slough.

The symptoms were relieved for a time, but later on returned; the pain, which became more constant and severe, required for its relief morphia suppositories, opium ointment, etc. It was found on further examination that the growth had returned and had attained a large size; it was now as large as a walnut, and seemed connected with the upper wall of the urethra near the neck of the bladder by a pedunculated attachment.

Under ether-anæsthesia the tumour was drawn well forward so as to isolate it from the surrounding parts, and removed by means of the fine wire écraseur. The very slight hæmorrhage which followed was arrested by introducing a slip of wood moistened with tannin and glycerine into the urethra: this was accomplished all the more easily since the canal was so much dilated as to allow of the passage of the little finger into the bladder itself.

*Case* 2.—*Unreduced Dislocation of the Shoulder of nine months' standing.*

The patient, a strong Irishwoman from Greenwich, aged forty-five, had fallen downstairs nine months ago, and received some injury to her right shoulder, of the nature of which she was not aware until a week before admission, when the parish doctor, who was attending her for some other ailment, discovered it, and advised her to go to a hospital. The only inconvenience she felt was the inability to raise the right arm to the head, and a certain limitation of its other movements. However, as she was desirous of having something done, Mr. Morris decided to attempt its reduction under complete anæsthesia. Ether was administered, and the patient placed at length upon a mattress laid on the floor of the theatre. One round towel was fastened by a clove-hitch to the arm above the elbow, over a wetted bandage (to prevent it from slipping or chafing); another was placed round the chest, and traction used upon it at right angles to the body. When the muscles were relaxed by the anæsthetic, extension was applied outwards and downwards, and afterwards the limb was gradually adducted, first without, and then with the heel in the axilla. The House-Surgeon meanwhile, with his hand over the head of the bone, manipulated the head towards the glenoid cavity, and at the same time kept the scapula fixed. Considerable but guarded and gradual force was used, and the head of the humerus was felt distinctly to move into the glenoid fossa; but the moment tension was relaxed it slipped back again. The arm was next drawn up over the head in a line parallel with the spine, but with no better result. During these manipulations a great deal of fibrous creaking was felt, as though adhesions were being broken through; and although reduction was not permanently attained, yet a much freer range of movement of the limb was permitted; and on recovering consciousness the patient could, without assistance, touch her head with the fingers of the right limb. The arm was then bandaged to the side, and an ice-bag applied to the shoulder with a view of warding off inflammation of the parts. After two days this was removed, and passive movement resorted to with the result of effecting such upward movement of the limb as to enable the patient to brush her hair and touch easily the occipital protuberance with her fingers, without any assistance from the other hand.

### CASES UNDER THE CARE OF MR. ANDREW CLARK.

*Case* 1.—*Removal of a Tumour from the Abdominal Wall.*

W. H., a strong, healthy-looking groom, aged twenty-three, fourteen months ago had a lipoma the size of an orange removed from the surface of the abdomen, in the right iliac region, by Mr. Clark.

Was again admitted into the Hospital (September 21) with another large tumour in the same situation, and which had, in fact, grown from the cicatrix resulting from the former operation. It differed, however, greatly in character from the first growth, and was evidently not simply a recurrence of the lipoma, for it presented more the character of a scirrhus, being a very hard and lobulated mass, larger than a fœtal head, quite free and moveable upon the abdominal muscles. The skin over it was congested and firmly adherent, and at one spot to its inner side a little ulcerated. This ulceration was attributed to a blow; it was not tender or painful, and was of about twelve months' growth. There was slight enlargement of

glands in the groin. The patient had not lost flesh. The tumour almost exactly occupied the triangular space formed by Poupart's ligament below, and a line drawn from the spine of pubes to the umbilicus internally, and another from the latter to anterior superior spine of ilium externally.

Under ether-anæsthesia Mr. Clark excised the tumour, cutting round it very freely, leaving the muscles quite free. The muscles were seen to be unimplicated. The large gap left was thoroughly washed out with chloride of zinc lotion, and lessened by drawing its edges together and securing them with harelip-pins and silk sutures. There was not a great amount of vascularity, only a few vessels required tying, and the epigastric appeared to pass altogether beneath. The outer portions of the tumour cut like scirrhus, and presented a hard, white, glistening surface; the interior, however, was softer. A microscopical examination revealed its true nature—viz., a fibroma, containing amongst the bundles of fibrous tissue a few fat cells, leading one to suppose that there must have been a predisposition in this particular region to the formation of fatty tumours; but that, owing to the presence of the cicatrix, the second development resulted in a far greater preponderance of the fibrous tissue element.

*Case* 2.—*Removal of Recurrent Scirrhus Mammæ.*

The patient was a young woman, aged twenty-six only, whose right breast Mr. Hulke had amputated five months ago for scirrhous cancer. The wound quickly healed, and there had been no return until three months after, when she noticed a little hard lump at one spot just above the cicatrix; it was then scarcely as large as a pea. The iodide of lead ointment was applied with no effect. Accordingly she took the advice to come in for the purpose of having it removed. There were now two little hard knots side by side, but isolated, under the skin just above the line of the cicatrix, each about the size of a bean,—one perhaps rather larger. Under ether-anæsthesia Mr. Clark removed them, taking a considerable portion of the healthy skin around as a precaution. A large gap was left, which was diminished by using harelip-needles as in the other case. These knots, on section, turned out to be undoubtedly scirrhous.

*Case* 3.—*Deligation of Nævus.*

The nævus was situated on the neck of a child, elongated in shape, about one inch and a half long and half an inch broad. Under chloroform, Mr. Clark proceeded to tie it in sections—viz., by passing a needle threaded with a long silk thread (one half of which was blackened with ink, the other half left uncoloured) alternately from side to side transversely in the short diameter of the nævus, under its base, cutting the black loops on one side, and the uncoloured on the other; and then tying tightly the contiguous threads, thus effectually causing the strangulation of the whole mass.

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# THE VICTORIA-PARK HOSPITAL.

## CASES OF INTRA-THORACIC DISEASE.

[Communicated by Mr. G. C. Franklin, Resident Medical Officer.]

(*Concluded from page* 362.)

*Case* 3.—*Malignant Tumour of Mediastinum—Cyanosis and severe Dyspnœa, relieved by Bleeding—Death.*

(Under the care of Dr. WARD.)

T. B., a caneworker, aged 33, was admitted on May 7, 1872.

*History.*—No previous illness; no syphilis. Was quite well until five weeks ago. He was then suddenly seized with dyspnœa; complained also of slight dimness of sight and dizziness, which lasted for two weeks. Slight cough; no expectoration.

*State on Admission.*—Patient is thin and pale. Breathing difficult; respiration 26 per minute. Cough slight. Voice altered. Pulse 96. Right radial less than left. Distension of veins of head and neck; more marked on right side. Tongue coated. Appetite good; no difficulty in swallowing. Bowels open. Movement apparently equal on both sides of chest. Dulness over manubrium sterni, extending on both sides of it under the clavicles, about two inches to the right, and rather less on the left. Below left clavicle in the first interspace there is a small tumour close to sternum, non-pulsating, slightly tender on pressure. Breath-sounds deficient at both apices. Heart's apex in the sixth interspace two inches and a half below the nipple in the mammary line. Cardiac sounds normal. Veins of upper thoracic surface much distended, as well as those of the head and neck, especially on right side. Posteriorly the dulness greater over right dorsal region Tracheal breathing loud at both apices, and very loud over the spine of vertebra prominens; respiratory sounds distinctly less at right base than at left.

May 10.—Retinal veins distended and tortuous; discs natural. Upper part of pharynx and larynx of a deep red congested colour; vocal cords look thickened, as if mucous membrane were swollen—they have not the usual white appearance, and do not move freely in respiration, but adduct well.

25th.—General condition decidedly worse; sickness; loss of appetite; temperature has varied between 98·4° and 102·2° pulse 100 to 120. Urine occasionally albuminous; appearance normal.

28th.—Face puffy; voice more natural; venous distension now marked also in dorsal regions. One large vein appeared just above spine of right scapula, and appeared to re-enter below the last rib—the course of the blood being from above downwards.

31st.—Voice again altered; puffiness of face and neck much increased.

June 8.—Continues to get worse; much dyspnœa in the night; expectorated tinged sputa with difficulty. The whole of the right side is now dull, though not absolutely so. Respiration very deficient throughout; much stridor over spine, with some rhonchus.

9th.—This evening, severe dyspnœa; cyanosis becoming marked; bled from the arm to ten ounces with immediate relief.

10th.—Had little sleep last night; another attack of dyspnœa lasting half an hour. There is œdema of right arm, and he is still cyanotic, with severe dyspnœa. Bled again to about the same amount. He died about an hour afterwards quite quietly.

*Autopsy.*—On opening the chest a mass of new growth was seen occupying the anterior mediastinum in the upper part, pyramidal in shape, apex downwards. Surface both smooth and nodular, unconnected with thoracic wall, but extending into right pleura, which was adherent over the upper lobe of right lung, the surface of which was puckered in parts where isolated nodules of the growth appeared. The growth had been in contact with two-thirds of the sternum, and its apex appeared to have thrust down the heart, its posterior surface being covered by a pouch of pericardium. On opening the trachea from behind the growth was seen perforating the right bronchus (œsophagus uninvolved). Vena cava superior completely occluded, so that water poured in from above did not run through the vessel. This vessel, together with the aorta and end of the trachea, were embedded in the mass of growth. Much fluid in both pleuræ. Lungs generally œdematous and engorged. Upper right lobe solidified at its upper and inner part, and invaded by nodules of growth. Anterior portion of lower lobe of left lung and adjacent portion of pericardium united in one thick mass of growth entirely separate from the former. Heart small and flaccid; its fatty tissue œdematous. Liver, spleen, and kidneys all engorged. The growth had the general appearance of what was then called sarcoma, being composed of round and spindle-shaped cells.

*Case* 4.—*Malignant Tumour of Mediastinum involving Right Lung—Cyanosis—Urgent Dyspnœa, Relieved by Bleeding—Death.*

(Under the care of Dr. BIRKETT.)

T. C., a carman, aged 38, was admitted on January 5, 1874.

*History.*—Has had winter cough for four years; never had syphilis. Was quite well till six months ago, since when his breath has become short, and he has suffered from cough with some expectoration—"congealed stuff" at first, followed shortly by a considerable amount of bloody purulent sputum. Has lost flesh; no night-sweats.

*State on Admission.*—Patient is cachectic-looking; appetite bad. No pain nor sickness; bowels regular. No difficulty in swallowing; respirations 36 per minute. Cough troublesome, with profuse purulent sputa. Breath fetid. Pulse 84; skin cool; temperature normal. On examination of the chest, the following physical signs were observed:—Little or no movement of right chest as compared with left; superficial veins on chest and abdomen are very much enlarged, as also on right arm and back. Dulness throughout right side, except a small resonant spot in axilla. Respiration at right apex almost *nil*, but what there is is bronchial, as also at right base posteriorly; no moist sounds. Pectoriloquy at apex. Tactile fremitus throughout, except over the resonant spot.

January 19.—Obviously worse since admission. The super-

ficial veins are more distended, those of the head, especially on right side, being very prominent. No pain. Swallows easily; appetite good. A well-defined patch of œdematous redness, involving the nose and both checks, has just made its appearance. Temperature 97·8°; pulse 96; tongue clean.

23rd.—General œdema and redness of face, which is extending to neck. Appetite bad; tongue red, covered here and there with white patches. Cough worse; sputa very fetid.

26th.—Cyanotic, with distressing dyspnœa. Bled from the arm to three ounces with immediate relief. He died quietly an hour after the bleeding.

*Autopsy.*—Body fairly nourished. On opening the thorax the right lung was found not adherent to chest-wall, except at the base: it was adherent also to diaphragm, leaving a cavity (empyema) on upper surface of latter containing fetid pus. The lung did not collapse. The heart and lungs being removed *en masse*, the root of the right lung was found to be continuous with, and embedded in, a nodular mass of growth. This did not project beyond the left border of sternum, and was about the size of a man's fist. The growth had involved the superior vena cava, so as to block it up, and small portions of it were seen in the right auricle. The pericardium in the region of the large vessels was adherent to the mass. The right lung was infiltrated more or less throughout. The growth seemed to have spread chiefly along the course of the lower main bronchus, the walls of which were much thickened by it, and which communicated with small cavities at the lower part of the lung and with the large (empyema) cavity alluded to above. The whole lung was solid, whitish-looking, as if in the grey stage of pneumonia, but harder. In the upper part was a distinct cavity of about an inch in diameter. The left lung was apparently healthy, with the exception of a single nodule of the growth in the anterior free border, about half an inch in diameter, and not adherent to tumour. With the exception of the right auricle, the heart was healthy. Other viscera natural.

*Remarks on Cases* 3 *and* 4.—Both were men of about the same age—thirty-three and thirty-eight years; both previously healthy, excepting the winter cough in one case. No family history of malignant disease. Duration respectively two and seven months from first appearance of symptoms of disease. The one, the more rapid case, had distinctive signs of his disease from his first appearance at the hospital; the other, on imperfect examination, was passed as an ordinary case of phthisis. In the former case the enormous superficial venous distension doubtless made the diagnosis comparatively easy; in the latter, the distension was not noted until late in the disease, and then verified the diagnosis. The fetor of breath, which is referred to as being an important aid to diagnosis of so-called cancer of lung, was noticed in one case only, when it could have been accounted for by empyema. In both cases the superior cava was blocked, and in an exactly similar manner. In neither was there difficulty in swallowing, nor was morbid growth found elsewhere. The treatment was general, with this exception—that forty-eight hours, and again an hour, before the death of one, and an hour before that of the other, blood was taken from the arm with immediate relief to most distressing dyspnœa.

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The Carrier-Pigeon.—The travelling pigeon never feeds. If the distance be long it flies on without ever stopping to take nutriment, and at last arrives thin, exhausted, almost dying. If corn be presented to it, it refuses, contenting itself with drinking a little water and then sleeping. Two hours later it begins to eat with great moderation, and sleeps again immediately afterwards. If its flight has been very prolonged, the pigeon will proceed in this manner for forty-eight hours before recovering its normal mode of feeding. Is this not an admirable proof of instinct?—*Union Méd.*, October 24.

Acidity of the Intestinal Juices.—M. Leven, in a communication to the Académie des Sciences, states that the alkaline state of these juices described by authors has really arisen from the faulty modes of experimenting that they adopted, which, allowing of the contents of the vessels as well as of the intestinal glands to be poured into the canal, produced an alkaline liquid. In fact, these juices are acid and of a similar nature to those of the stomach—the stomach commencing, and the intestines completing, the process of digestion; the latter being, in fact, the true seat of this process.—*Gazette Méd.*, October 24.


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# Medical Times and Gazette.

SATURDAY, OCTOBER 31, 1874.


## INSANITARY ENGLAND.

Among the papers read in the Public Health Department of the Social Science Congress this year was one by Dr. W. J. Cooper, on "The Causes of Some Epidemics," the purpose of which was to set forth the pernicious effects, direct and indirect, of sewer-gases and emanations from in other ways polluted and infected soil; and the deadly evils that may arise from these sources were illustrated by accounts of outbursts of fatal disease that had occurred on the opening-up of old plague-pits, especial reference being made to, and a graphic report given of, the terrible outbreak of disease in Broad-street, Golden-square, in September, 1854. But one of the most interesting passages in the paper was that devoted to an account of the present sanitary, or rather insanitary, condition of Jerusalem. It will be remembered that Dr. Lyon Playfair, in his very able inaugural address in the Public Health Section, spoke of the fevers that infest some modern-ancient cities, owing to the saturation of the soil with the piled-up filth of generations, pointing out that in Rome especially there are the accumulations of centuries of organic and inorganic *débris*, which, when stirred up and exposed to the air—that is, to the action of oxygen,—become active, and give out the exhalations that cause Roman fever. Referring to and quoting these statements, Dr. Cooper proceeds to show that the present state of Jerusalem is even worse than that of Rome. "The accumulations of the filth and rubbish of centuries," he says, "defile the air and poison the water-supply; the cisterns and ducts are choked with sewage, which is stirred up when the water gets low by the buckets used in drawing the water. The mixture which thousands have to use as their daily beverage is almost too horrible to think of. Towards autumn a sort of miasma rises, and the fever season commences. The Jewish population in 1865 was estimated at 9000; and, during a period of twelve months, 5000 cases were attended at their own hospital, and 8000 at that of the Protestant Mission. Enlarged spleen

is very prevalent—in fact, immunity from that disease was the exception. The state of the pools—so sacred and familiar to the ear of the Christian world—is deplorable. In the Pool of Hezekiah, close to Christian-street, the cement is bad and out of repair, and the bottom is covered with a thick deposit of vegetable mould. In one corner is a large open cesspit, of so foul a description that it can hardly be approached. The water from the 'Fountain of the Virgin,' and conveyed from that spring to the Pool of Siloam, is in a frightful state of impurity; its taste is disgusting, and slightly saline, owing to the fact of its having filtered through the mass of rubbish and filth on which the city stands; and this peculiarity of taste is intensified at Siloam by the water passing over a slimy deposit two or three inches deep, which covers the bottom of the conduit. The fellaheen make matters worse by bathing and washing in the same basin from which they draw the water—the saline flavour of the liquid being supposed by some to have medicinal virtue, like the spring near Paris described in a recent number of the *Revue des Deux Mondes*, which filtered through a cemetery, and was *exploitéd* as a medicinal spring." The water of another spring—that of the Convent Sisters of Sion—tastes still worse, he states, than that of Siloam; and "in the water-passage cut in the rock there is an accumulation of sewage to the depth of six or seven feet, this sewage only separated from the water of the spring by loose rubbish." It appears that the Baroness Burdett Coutts has offered to pay the cost of a better water-supply if she is allowed to choose the engineer to carry out the necessary works; but the Turkish Government will not consent to this condition, and Jerusalem must therefore remain without a pure water-supply. All this is, without doubt, very lamentable; and it is, indeed, but too well known that the pleasures and advantages of travel and change of climate are sought after at not slight risks. Who cannot tell of cases of injured health, or of prostrating and even fatal illness, from "fever" caught in Palestine, from "Roman fever," from typhoid contracted in many a Continental city and town? But is not the state of things really as bad, if not even worse, at home? Worse, because the existing dangers are not always so patent as they are at Jerusalem,—for it is not often that we find the water-supply visibly running side by side with accumulations of sewage, and separated only by loose rubbish. But in numberless homesteads, villages, and even towns, the drinking-water is drawn from surface-wells so constructed and so placed with regard to cesspools that there must be soakage from the latter into the former; and the danger to health therefrom is so serious that it is really almost as advisable, if not as necessary, for holiday visitors to "quiet," secluded, and charming little country and seaside places to carry charcoal filters with them as it was for our troops to take them to Ashantee land. A terrible proof of this was given us this autumn in the fate of a "reading party" of five who stayed a few weeks in a little seaside place—in Cornwall, we think: four out of the five had typhoid fever, and one, at least, died. Again, how often it is found that in even the "best-constructed" and most fair-seeming houses arrangements are made for drawing the sewer-gas into the house and into the cisterns! Might we not rather say that it is even yet comparatively seldom that the domestic engineering arrangements are such as to make sewer-gas infection impossible? Then, our water-supplies are still too generally polluted at their sources, the rivers and streams from which they are drawn being still polluted by the sewage from the towns on their banks; and the prevention of this is being but very slowly enforced. It is eight years, we believe, since formal notice was given by the Conservators of the Thames to the City of Oxford, and to Eton and some other towns, to divert their sewage from the river; but at Eton only, so far as we understand, has this been done up to the present time; and there it has been done for some time. At Oxford the difficulty of carrying out a perfect system of drainage and sewerage is no doubt considerable, as the city lies very low; but at Eton there was the same difficulty, and it has been most successfully overcome. We are glad to know that the authorities of Oxford are, however, at work, and are now actually carrying into execution a new and extensive system of drainage, though this will take a considerable time—some two years, we have heard—to complete. This is well—"Better late than never"; but we hope we may be able sooner than that to report a great improvement in the sanitary condition of that city, for we suppose that Oxford has an officer of health, and the condition of some parts of the city, described in our pages last week, is most disgraceful, and we do not understand how it can be anything but as inexcusable as it is disgraceful.

It is a flagrant instance of a condition of things that prevails, more or less in extent and to a greater or less degree, throughout our country; that makes many places as destructive to health as is the sanitary condition of Jerusalem, the description of which we have given from Dr. Cooper's paper; and that renders the need of sanitary legislation, and of one sanitary law for the United Kingdom, imperative and urgent. Dr. Lyon Playfair showed that the hygienic condition of England has improved, and pointed to reasons (not new to our readers) for hoping that the present Government will seriously devote itself to sanitary legislation, and so win undying fame, but we have not observed any notice of the subject in any of the ex-Parliamentary utterances in which our legislators have of late been indulging.

## SEWAGE GRASS AND SEWAGE MILK.

It will be within the memory of some of our readers that at the time of the curious outbreak of typhoid fever in Marylebone during the course of last year, and whilst as yet the real cause had not been fully discovered, various possible causes were discussed. Amongst others, Mr. Alfred Smee advanced the hypothesis that inasmuch as the milk of the suspected dairy was in part procured from a sewage farm, there we must seek for the real cause of this and other like outbreaks. It was pointed out at the time that experience did not support this view; nevertheless, it was of considerable importance to know how far and in what respect sewage grass differed from ordinary meadow grass as food for milk-giving cows, and was a question which well deserved working out. To this Mr. Hutchison Smee has devoted himself for some time past, working at Wallington, his results being checked by Professor Attfield, of the Pharmaceutical Society. In a letter to the *Standard* he gives some of these results, which, to say the least of them, are exceedingly interesting. The first great difficulty was to obtain definite results uncomplicated by error. To this end he says he "made an infusion from the tops of grass grown on the sewage farm, and also from a similar weight of grass from a neighbouring meadow. The two samples of the infusion of grass yielded—

| | Sewage farm grass, per gal. | Meadow grass, per gal. |
|---|---|---|
| Nitrogen, as ammoniacal salts . . . | 8·4 | 2·8 |
| Nitrogen, as ammoniacal organic matter . | 1·4 | ·7 |
| Nitrogen, as albuminoid ammonia . | 12·6 | 5·6 |
| | 22·1 | 9·1 |

From this analysis it appears that sewage grass contains a large quantity of unassimilated nitrogenised matter, and it is not improbable that part at least of the albuminoid ammonia is sewage pure and simple, locked up in the cells and juices of the plants."

The great difference between the two sets of figures is truly astonishing, but perhaps the most astonishing is the difference in the albuminoid ammonia—that is to say, the albuminous substances probably partially converted into part and parcel of

the plant; for we can hardly credit the fact, as asserted by Mr. Smee, that these substances have been introduced by mere absorption, even though backed up by such an experiment as follows:—"That plants can 'dissolve' substances into their structures without change can be proved by feeding a musk plant for some weeks with Guinness's stout instead of water. A strong smell of stout will be emitted from the plant on bruising the leaves between the fingers." To obviate the next difficulty, "cows of a similar breed and milking quantities were set aside for the purpose of these inquiries; for the variation of milk in different kinds of cows is very great, even when fed on the same food." Thus:—

| | Water. | Solids. | Casein. | Fat. | Sp. gr. |
|---|---|---|---|---|---|
| Alderney . . | 79·8 | 20·2 | 5·8 | 6·2 | 1025 |
| Brittany . . | 86·5 | 13·5 | 3·5 | 3·7 | 1030 |
| Shorthorn . . | 85·0 | 15·0 | 4·1 | 5·8 | 1033 |

And on the same day milk taken from other cows in the same district gave—

| Water. | Solids. | Casein. | Fat. | Sp. gr. |
|---|---|---|---|---|
| 90·5 | 9·5 | 3·1 | 3·0 | 1031 |
| 85·6 | 14·4 | 4·0 | 4·5 | 1031 |
| 86·0 | 14·0 | 4·0 | 4·6 | 1033 |
| 88·5 | 11·5 | 3·2 | 3·1 | 1029 |
| 86·9 | 13·1 | 3·8 | 4·1 | 1032 |
| 85·9 | 14·3 | 4·1 | 4·7 | 1033 |

From the above it will be seen that it is impossible to obtain a very satisfactory standard, thus increasing the difficulties of the investigation. Not only so, but also the necessity of taking the mean milk of a milking for all experimental purposes will be shown by the following analysis:—

| | Water. | Solids. | Casein. | Fat. |
|---|---|---|---|---|
| Milk first drawn . . | 85·5 | 14·5 | 3·5 | 3·0 |
| „ last drawn . . | 80·0 | 20·0 | 4·0 | 8·0 |

It is due probably to this fact that contradictory results have been obtained by different observers."

It will be observed that Mr. Smee says nothing of the quantity of milk yielded on the two diets, but he goes on to say—"Cows which he had fed exclusively on sewage grass of the Croydon farm have lost flesh and have done badly, even when they have been fed on a mixed diet, substituting only sewage for meadow grass. The following is the analysis of the milk of two shorthorn cows which, before the experiments, were equal in quantity and quality of milk:—

| | Water. | Solids. | Casein. | Fat. |
|---|---|---|---|---|
| Sewage fed . . | 86·3 | 13·7 | 2·5 | 2·5 |
| Ordinary fed . . | 86·2 | 13·8 | 3·2 | 3·0 |

The cream from these cows was set aside, and the time required for churning into butter was—

| | | | | |
|---|---|---|---|---|
| Sewage . | 2½ hours | 1½ hours | butter soft | 2½ hours |
| Ordinary | 35 min. | 1½ „ | butter firm | ¾ hour |

Pats of butter were set aside and kept until they went bad; it was invariably found that the sewage butter became rancid many days before butter made from meadow grass did so."

More curiously still, however, it was found that "sewage milk, when placed upon one of Graham's dialysers, on several occasions, but not invariably, behaved in a remarkable manner. The casein appeared to separate from the milk, and streamed through the membrane, and fell to the bottom of a vessel containing water. The casein evidently existed in the milk in some allotropic condition. This phenomenon was never noticed in other milks."

These results are certainly very interesting and very curious, but, as Mr. Smee himself says, it is by such investigations, long and carefully conducted, that in the end truth must be sought.

## THE CORTEX OF THE BRAIN.

Professor Betz, of Kiew, publishes in *Centralblatt*, Nos. 37 and 38, the preliminary results of some investigations made into the histology of the superficial layers of the brain, in order to discover if it is possible to determine, from the quality and quantity of the histological elements, whether similar parts are present or absent in man and animals. He finds, by the examination of numerous vertical sections of hardened brain, that the two regions of the brain-surface which are separated from one another by the fissure of Rolando differ remarkably in their minute structure. The anterior region, which extends over the whole of the anterior and the upper end of the posterior central convolution, and forms a distinct lobe on the inner surface of the hemisphere, is the most interesting, and the one which Betz has most carefully examined.

The following account, therefore, deals mainly with the anterior tract. Here are found a number of pyramidal nerve-cells, which Betz considers to be the largest in the whole body, and to which he gives the name of "giant pyramidal cells." They are chiefly situated in the fourth layer of the cortex; are from 0·05 mm. to 0·06 mm. broad and 0·04 mm. to 0·12 mm. long. They all have two chief and from seven to fifteen secondary processes, and the latter further divide into still smaller ones. One of the principal processes is thick at its origin, and then divides and subdivides, and sends out lateral branches in its course to the periphery of the cortex; the other process is slender, and starts from the nucleus of the cell, passing directly into the axis cylinder, which soon becomes thicker and provided with a sheath, and so continues its course as an undoubted nerve-trunk.

These cells do not form a continuous layer, but are aggregated into groups or nests of two or more cells, which lie from 0·03 mm. to 0·07 mm. apart. They are less numerous in the lower half of the anterior central convolution, and are more frequently met with and more closely packed at its upper end and on the inner surface of the hemisphere. These nests occur in quite young people, though in them they are smaller and have fewer processes than in adults. In the brains of very old people the nuclei of the cells become filled with yellow granules, which do not stain with carmine. In the right hemisphere the cells are more numerous and apparently larger than in the left. They are to be found in the same locality in every human brain; in idiots, in the chimpanzee, and in several of the lower apes. Professor Betz was led by their constant position, not only in a special layer of the cortex, but also in perfectly definite convolutions of the human brain, to examine the parts of the dog's brain which Fritsch and Hitzig had found electrically irritable—viz., the immediate neighbourhood of the sulcus cruciatus; and he has made the remarkable discovery that cells of the same form and of exactly the same arrangement occur in the dog, and are limited to the lobe which bounds the crucial fissure and to the anterior half of the contiguous convolution posteriorly. They occupy the fourth layer of the cortex, just as they do in man. In size they are somewhat smaller, but still the very largest cells in the whole nervous system of the dog. In man and the higher apes the greatest number of these giant pyramidal cells are situated in a lobe which lies on the inner surface of the hemisphere, and which has not been previously described by any one. To this lobe Betz gives the name of "paracentralis." It lies in front, and to the inner side of the fissure of Rolando, and is present in every human brain in a more or less developed state. It is separated in front by a furrow from the inner surface of the first frontal convolution, and behind a similar furrow divides it from the lobus quadratus, and below from the gyrus formicatus. Its outer surface passes into the upper end of the central convolutions. In adults this lobe varies in size in its relation to other lobes.

The question of the greatest interest with regard to the regions of the brain which contain the giant cells is, whether they are identical in function in man and animals. Their form, size, and arrangement, as well as many other points of histological resemblance, favour this view, whereas the position

of the lobe in which they are placed is not identical in the two; for while in man the lobulus paracentralis is concealed in the middle of the inner surface of the hemisphere, in the dog it lies on the outer and anterior part of the brain-surface, and exposed to view. However, a comparison of these parts in the brains of apes, from the chimpanzee downwards, shows that this lobe gradually becomes more external the lower the species descends in the scale.

From these and other considerations Professor Betz believes that those convolutions of the dog's brain which have been found to be electrically irritable correspond to his lobulus paracentralis, and not to the central convolutions of man, which are scarcely represented in the dog. The position of the lobulus paracentralis, partly on the inner surface of the brain in close proximity to the great longitudinal sinus and to the veins which enter it, and partly on its outer surface in the direction of the large arteries and veins of the pia mater, may perhaps, Professor Betz thinks, throw a light on the sudden appearance and disappearance of transient paralyses of central origin; on the eclampsy of parturition, as well as on epileptic convulsions and hysterical laughter; and may perhaps help to explain many cases of partial and total aphasia.

With regard to the posterior tract of the cortex of the brain, of which the fissure of Rolando is the anterior boundary, it may be stated that its extent is much greater than that which contains the pyramidal cells, but it varies very considerably in different brains. The elements which it contains are also large cells, which are arranged in nests of two, and very rarely more, cells in two rows. These cells have very few processes, and no very sharply defined axis cylinder. Their basal processes pass out in a horizontal direction towards the surface of the cortex, and they appear to communicate with one another. The peripheral processes are thinner, and Professor Betz has not been able to discover any lateral branches arising from them such as occur in the peripheral processes of the giant pyramidal cells. He hopes shortly to publish a detailed account of the results he has obtained from the examination of both the regions described.

## THE ANNUAL REPORT ON THE HEALTH OF THE ARMY FOR 1872.

The fourteenth Annual Report on the Health of the Army—year 1872—has just been published, and from this it appears that the average strength of the whole force in the United Kingdom during that year, in accordance with the weekly returns rendered to the Army Medical Department and the Adjutant-General's returns of men detached from their regiments, was 99,307. The total number of deaths is shown as 790, which gives a ratio of 7·95 per 1000 of strength. The ratios of admissions and deaths are lower than those of the previous year by 31·9 and 0·67 respectively. In that of constantly sick there is an increase of 0·56. The following statement shows the ratios and mortality per 1000 of the strength in 1872, compared with the average of the previous ten years:—

| | 1872. | 1862-71. |
|---|---|---|
| Admitted into hospital . . | 784·3 | 888·6 |
| Died . . . . . | 7·95 | 9·36 |
| Constantly sick . . . . | 39·34 | 44·14 |

Little change in the prevalence of the various orders of local diseases is reported; diseases of the circulatory system were rather above the average, and those of the respiratory system below it. General diseases were below the average as to prevalence, and also slightly less fatal; the reduction in prevalence being greatest in the febrile group, and that in mortality confined to the constitutional one.

In 1872 the admissions into hospital for primary venereal sores and gonorrhœa were, at stations under the Contagious Diseases Act, 54·2 per 1000 for the former, and 104·0 for the latter; whilst at stations *not* under the Act they were 122·1 and 105·9 per 1000 respectively—showing a difference of 68·9 per 1000 in venereal sores, and 1·9 per 1000 in gonorrhœa in favour of those stations protected by the Act. At both groups of stations there was an increase in the amount of primary venereal sores in 1872 compared with the results of 1871, but it was only 3·1 per 1000 at the stations under the Act, while it amounted to 29·7 per 1000 at those not under the Act. In gonorrhœa there was a reduction in both groups of stations, but much greater at those under the Act. The results shown by the returns for 1872, as to the efficacy of the Contagious Diseases Act in reducing the prevalence of gonorrhœa, are much the same as those recorded in several former reports; it is doubtful if any benefit of consequence is to be ascribed to it. The excess of the reduction at the stations under the Act over that at those not under it is, of course, a favourable result as far as it goes, but it may have been accidental; and the fact remains that the average ratio of admissions for the eight years, from 1865 to 1872, was higher at the protected than at the unprotected stations. It is, therefore, evident that as yet little influence has been produced on the prevalence of gonorrhœa by the measures which have been so undoubtedly efficacious in reducing that of primary venereal sores, the far more serious form of venereal disease, from which constitutional contamination and ultimate inefficiency so often result. But it may be added that it was not to be expected that the returns would furnish as strong evidence of the beneficial working of the Act in the case of gonorrhœa as in that of primary venereal sores, not only because the former disease is so much more difficult of detection in the female than the latter, but still more because relapses of gonorrhœa in soldiers are of very frequent occurrence, and several admissions often result from *one* infection, while in primary venereal sores relapse is a very rare occurrence.

Fifty-six accidental deaths are recorded as having taken place during the year 1872; of these 28 were by drowning, 10 from fracture, 9 from multiple injury, 3 from injury to the brain, 2 from poisoning (both at Aldershot—1 from chloroform administered for a surgical operation, the other by cyanide of potassium taken by mistake), 2 from rupture of internal organs, and 1 from asphyxia caused by a piece of meat in the windpipe. Three deaths occurred by homicide, nineteen by suicide; one man was hanged at Maidstone for murder; and one death was returned as "cause unknown." This case was that of a man of the Royal Artillery employed at the Autumn Manœuvres, who fell dead on the field at Winterbourn; he was believed to have suffered from heart disease, but the verdict of the coroner's inquest being simply "Died by the visitation of God," no further information as to the result of the post-mortem examination could be procured.

The regulation requiring all recruits to be revaccinated on joining their regiments or depôts continues in force, the number on whom the operation was performed in 1872 having been 23,945.

As regards the influence of age on the mortality of troops serving in the United Kingdom, the returns for 1872 show that the mortality was reduced at all the ages below thirty-five, but increased at those above it. The decrease between twenty-five and thirty and the increase above forty were considerable, as during the preceding year the proportion of deaths between twenty-five and thirty was lower than that between twenty and twenty-five.

The Appendix to the volume for this year (1872), as usual, contains several papers contributed by medical officers of the army, amongst which one on a case of feigned dumbness, reported by Surgeon-Major T. C. O'Leary, M.B., presents some interesting particulars, as does another by the same officer on a case of sunstroke in India, which was successfully treated by the hypodermic injection of quinine.

## THE WEEK.

### TOPICS OF THE DAY.

It would seem by the tactics now being employed by the Anti-Vaccination League that it is as desirous as much as possible to make the question at issue a political one. At a Conference of Anti-Vaccinators, held on Monday last at Birmingham, a paper was read by Professor F. W. Newman, "On the Political Side of the Vaccination System." He denounced compulsory measures, because legislators could not secure the child violently subjected to it from possible evil results. Parliament, in surrendering its legislative powers into the hands of a special medical clique, had made no effort to get free and fair debate amongst medical men of all schools on this critical subject. In the course of the meeting the following letter from Mr. John Bright was read:—

"Mr. Henry Pitman, Manchester.—Dalguise, N.B., October 6, 1874.—Dear Sir,—I cannot take any part in your Conference, nor will I express any opinion upon the main question in which you are interesting yourselves, except so far as to say that the facts which have come before me seem to be against you; but I have no objection to express my doubts as to the wisdom of compulsion, and I have always felt that the law which inflicts any penalty on a parent who is unwilling to have his child vaccinated is monstrous, and ought to be repealed.—I am, yours truly, John Bright."

Eventually, a resolution was carried to form a joint committee of the various societies, with the view, amongst other things, to issue an appeal to the nation on behalf of the persecuted parents, the loyal subjects of the empire. Facts and figures, then, are becoming too much for the staunchest opponents of vaccination. Even Mr. Bright would appear to acknowledge this, and merely repeats the cuckoo-cry of unjust compulsion. It is to be regretted that a man of his commanding position and intellect should ignore facts and lose sight of the arguments and statistics by which the value of vaccination is demonstrated. The warfare must soon cease when anti-vaccinators have no other ground on which to rest their opposition than a sentiment and a sneer.

An effort was made at the last meeting of the Metropolitan Asylums Board to prohibit the use of playing-cards in the various metropolitan asylums. The ground assumed by the proposer of this resolution was that playing at cards tended to produce a vicious system. It would be an act of simple inhumanity to carry out such a prohibition, and one that would receive, we are convinced, the hearty condemnation of the vast majority of the medical officers.

In his late report to the Kensington Vestry, Dr. Dudfield made some judicious remarks on the prevention of the spread of scarlet fever now so generally prevalent. He said, considering the fact that the infection is often spread, as stated, through the medium of schools, it had occurred to him that the great influence exercised by the School Board for London might be beneficially employed to limit the present epidemic—viz., by the adoption of a rule that no convalescent should be readmitted into a school until all danger of infection is at an end; and by a further rule that no child should be allowed to attend school during the prevalence of infectious disease within the house in which the child resides. The attention of the heads of schools should be drawn to this subject, and the signs of disease explained. They should make diligent inquiry as to the existence of disease in the houses of the children. By the distribution to parents of a short and plain printed statement setting out the above rules, the necessity of isolating the sick, and disinfecting rooms, clothing, etc., and last, not least, the penalties incurred by exposure of infected persons and things, an incalculable amount of good might be done, and that in the best possible way, inasmuch as the poor, as a rule, place the greatest confidence in the teachers of their children. He was not sure that it would not be right to exact some evidence of a child's safety, both to himself from the sequelæ of the disease, and to others from the power to infect by his person or clothing, before readmission to school. "Be this as it may, however (the report continues), it cannot be too widely known that while the process of desquamation of the skin, or 'peeling,' as it is called, is going on, a child is in a most infective condition, and that the clothes, etc., worn by the sick, and by those in immediate contact with them, are also capable of disseminating the disease. To those who are acquainted with the subtle character of the poison of this disease, no precautions against its spread will be thought superfluous or too minute. He was confident, therefore, that the hints he had let fall would not be disregarded by any member of the School Board whom they may reach. He would only add that any action taken by this important body, with a view to limit the extension of what is, after all, a children's disease, would be most impressive as an example, and would in all probability be universally followed by other school managers. The influence of the Board in such a case can only be expressed by saying that it would be immediately felt in tens of thousands of London houses that could not be so effectually reached in any other way." It was unanimously resolved to adopt the suggestion of Dr. Dudfield, and to forward a copy of the report to the School Board for London.

Our contemporary the *Times* publishes the following extract from a letter which a correspondent has received from a medical practitioner in one of the Australian colonies:—"I have to attend working-men's clubs, and their clamorous advocates for eight hours a day and high wages don't scruple to condemn us doctors to fourteen hours a day, and pay 3½d. per week to attend themselves and families up to eighteen years of age." These complainants seem to forget that what is sauce for the goose is sauce for the gander. Our Australian brethren should unite in opposing a system of injustice which acts most inimically to them. If the working-classes unite against the doctors on a question of so much importance, it is manifestly the duty of the doctors to "join issue" with their opponents.

The Middlesex Coroner's accounts were the subject again of some discussion at the magistrates' meeting last week. Mr. Northall Laurie remarked: "He trusted that when the next vacancy occurred a legal and not a medical gentleman would be appointed to the office. Mr. Humphreys was a legal gentleman, and understood the rules of evidence; and an inquest was really a legal inquiry, and not a medical one." It must be remembered that Mr. Northall Laurie is *not* a medical gentleman, and is scarcely competent to express an opinion upon the necessity and value of medical knowledge and experience in inquiring into the cause of death.

The deaths from scarlatina in Liverpool last week reached the very high number of 104.

Dr. Tilt has been elected a corresponding member of the Obstetrical Society of Philadelphia.

At a provincial grand lodge of Mark Masons which was constituted at Brighton last week, Sir J. Cordy Burrows, M.D., was installed as Right Worshipful Provincial Grand Mark Master.

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### ARMY MEDICAL OFFICERS.

Rather a lengthy communication has been addressed to a contemporary by a correspondent signing himself "M.D.," setting forth the numberless grievances under which, he asserts, army medical officers are at this time suffering. Although it is certain that some modifications in the existing state of things are required, the case is not quite fairly put by the gentleman who has thus appealed to the press for a recognition and removal of the causes of discontent now prevailing.

It is rumoured on very good authority that the present Secretary of State for War is about to consider the whole of the conditions of the late Medical Warrant, with a view of recommending such alterations as common justice may dictate; but it must be remembered that Mr. Gathorne Hardy is not responsible for the new system which has recently been imported into the service. On assuming office he found the Medical Department in a state of transition from the old regulations, and it would not certainly have been politic in him to cancel the new position of affairs, which, not having been fully carried out, could not justly have been said to have proved a failure. The station hospitals in succession to the regimental system, for instance, have scarcely yet been thoroughly established all over the kingdom, and no time has been afforded for determining the advantage, or otherwise, of their adoption.

Again, this gentleman states that "the prizes of the service, the Administrative Medical Department, are now held as long as personal interest at the Horse Guards prevails," whilst "other officers of the army are compelled to vacate staff appointments after a given period." This statement is scarcely correct. All administrative posts in the Medical Department are held for a fixed term, with but very few exceptions, so small in number as to make but a trifling deduction from the tale of "prizes" available to the service generally. And in common fairness it should not be forgotten that such as the service is, such, in nearly all its conditions, it was when the writer (or his friends) was first "bought with the shilling."

The remarks on the unification of the medical service, which show that the pay and allowances of a medical officer when "unified" are still calculated regimentally, are worthy of consideration, and we are strongly of opinion that this point, at least, will be one which Mr. Hardy will rectify at the first opportunity.

Upon the question as to the necessity of the various forms and returns which the army medical officer is called to fill up, we can offer no opinion; but it is hardly likely that practical heads of departments would insist on the retention of this portion of the duty if no useful results were to be obtained from it.

In conclusion, we fear that the really objectionable portions of the new system which have already been brought to the notice of the authorities will not appear in a stronger light from the somewhat querulous complaints of the gentleman who has rushed into print to air his grievances. Questions of large and general importance to a distinguished body of gentlemen, such as those composing the Army Medical Department, must be treated with dignity and an accurate statement of facts, and will be likely to impress themselves with greater weight on the attention of prosaic Secretaries of State if unaccompanied with sensational and inapplicable quotations from Dante, which only tend to throw a ridiculous light on a sufficiently grave and important subject.

### THE NEW SANITARY ORGANISATION IN DUBLIN.

Last Monday, October 26, the Public Health Committee of the Corporation of Dublin appointed the several officers under the Public Health (Ireland) Act, and fixed their salaries. There was a large attendance of members, and Captain Robinson, inspector under the Local Government Board, was present. Resolutions were, after considerable discussion, passed, appointing the following officers at the annual salaries mentioned, half of which will probably be defrayed out of the Consolidated Fund:—James Boyle, Esq., C.E., Executive Officer, £300; Dr. Mapother, Consulting Medical Officer, £300; Dr. Cameron, Medical Officer and City Analyst, £300; thirteen physicians of the City Dispensary Districts at £10 each in addition to their present emoluments. The following sanitary sub-officers and inspectors of nuisances: — Mr. Edwards, £26; Mr. Webb, £46; Mr. O'Connor, £52. There were also appointed as sanitary sub-officers the following police officers:—Inspector Halligan, £160; Inspector Bury, £160; and three sergeants at £89 14s. each, one sergeant at £5 4s. nominal, two at £84 10s., two at £81 18s., five acting-sergeants at £2 12s. nominal, their salaries being paid by the Commissioners of Police. Mr. Alcock, clerk, £52; Mr. Costello, assistant to city analyst, £39; Mr. MacCarthy, keeper of the disinfectant chamber, £39; Mr. Cahill to have 3s. for each disinfection of premises. Mr. Moore was appointed keeper of the Morgue, at 15s. per week. A sub-committee was appointed to define and allocate the duties of the above officers, and to report to the next meeting of this Committee. It is not easy to see why there should be a consulting sanitary officer and a medical officer of health. It would surely be far better to have either two medical officers of health or to pay one man a proper salary for doing the work. Why should not Dublin, the capital of Ireland, have an officer like Dr. Trench, of Liverpool? He is in receipt of a salary which renders him independent of private practice, and enables him to devote his whole time and energy to the responsible duties entrusted to him. But in Dublin and in Ireland generally the cheeseparing of medical salaries is carried to an absurd extent. Witness the above list. Thirteen dispensary medical officers, whose "present emoluments" (exclusive of registration fees) amount to £125 per annum each, are to get between them as sanitary officers £130 per annum—that is, £30 a year *less* than the salary allotted by the Public Health Committee to a policeman inspector of nuisances! Can insult further go?

### ROYAL COLLEGE OF SURGEONS IN IRELAND.

The session at the School of the College was inaugurated on Monday, October 26, by an address from Dr. J. Emerson Reynolds, Professor of Chemistry. Mr. Joliffe Tufnell, President of the College, occupied the chair, and there was a numerous attendance of members of the profession and of students. Dr. Reynolds commenced his address with a fitting tribute to the memory of Arthur Jacob, thrice President of the College. He then proceeded to speak of the Public Health Act for Ireland; of the importance and wide range of preventive medicine; and of the duties of the medical officers of health; and afterwards touched on the theories propounded to account for contagion, and considered the properties of benzoic acid and of ozone as disinfectants. Benzoic acid was superior even to carbolic acid and its homologues, and was free from their unpleasant smell and from other disadvantages that interfered with their convenient use. He was therefore anxious to see this acid more extensively employed as a disinfectant. Dr. Reynolds illustrated this portion of his address by several very successful experiments. In conclusion, he impressed upon the students the necessity for earnest and thorough study. They should be satisfied with nothing short of a sound knowledge of the work in which they were engaged.

### THE DOWNING PROFESSORSHIP OF MEDICINE.

Last week we announced that there were only two candidates for this professorship—both distinguished graduates of Cambridge, and well-known workers in medicine. Now Dr. Payne, Assistant-Physician to St. Thomas's Hospital, and Fellow of Magdalen College, Oxford, has also come forward, the appointment being, according to the founder's will, open to graduates of any British University. Dr. Payne is B.Sc. of London, and gained one of the Radcliffe Travelling Fellowships of the University of Oxford, as well as a Fellowship in his own College, and, as our readers need not be reminded, he is distinguished in London as a laborious and able student in medical science as well as a practical worker in our hospitals. He has especially proved himself an able worker in pathology, both practical and scientific; and there does not appear to be

at present any especially skilled teacher of pathology in the University of Cambridge, as there is of physiology. Even though an Oxford graduate, Dr. Payne must be regarded as a very formidable candidate for the Cambridge Professorship.

REVIVAL OF AN OLD MEDICAL SOCIETY.

The Charing-cross Hospital Medical Society, which was founded in 1859, and ceased to exist in 1869, on account of the small number of students who attended the meetings, has recently been revived, and held its opening meeting on the evening of Wednesday, October 21. Mr. Hird, F.R.C.S., Dean of the School and Honorary President of the Society, occupied the chair, and delivered an introductory address, in which he very appropriately offered to the students some words of congratulation, encouragement, and counsel. A *conversazione* followed, to which Messrs. Weiss, Baker, and Mayer and Meltzer lent a valuable and interesting collection of instruments—surgical, scientific, and microscopical,—and the London Stereoscopic Company a number of photographic views, etc., that greatly enhanced the pleasure of the evening. The meetings of the Society will, by the liberality of the Weekly Board of the Hospital, be held in the Board-room on alternate Wednesday evenings at eight o'clock. The office-bearers for the session 1874-75 are as follows:—Mr. Hird, F.R.C.S., Honorary President; Mr. Cantlie, M.B., C.M., President; Mr. Taylor, M.R.C.S., Vice-President; Mr. W. J. Brooks, Treasurer; Mr. L. Birt, Secretary; and eight members to form a council.

BRUTAL WIFE-BEATING.

It were time some additional punishment should be awarded to persons charged with assaults accompanied with brutal violence. Public opinion is undoubtedly in favour of inflicting corporal punishment in cases of assault on women and children. Flogging proved effective against garrotting and assaults with weapons; it may therefore be reasonably expected to act as a deterrent to wife-beaters. We are glad to perceive that many memorials from all parts of the kingdom are about to be presented to the Home Secretary for bringing into Parliament a Bill to confer power on the justices to inflict corporal punishment on brutal wife-beaters and others convicted of violent personal assaults, similar to that which is in force against garrotters. It is quite evident that the punishment now in the power of the magistrate to inflict is quite inadequate to suppress a system which is a disgrace to the country.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

At the annual stated meeting of the College, held on Monday, October 19 (the day after St. Luke's-day), the officers of the coming year were selected as follows:—*President:* James Foulis Duncan, M.D. *Vice-President:* Henry Kennedy, M.B. *Censors:* Henry Kennedy, M.B.; Arthur Wynne Foot, M.D.; Lombe Atthill, M.D.; and Walter G. Smith, M.D. *Treasurer:* Aquilla Smith, M.D. *Registrar:* J. Magee Finny, M.D. *King's Professor of Medical Jurisprudence:* Robert Travers, M.A., M.D. *Examiners in Midwifery:* Edward B. Sinclair, M.D.; and Fleetwood Churchill, jun. *Representative on General Medical Council:* Aquilla Smith, M.D. *Librarian on Foundation of Sir Patrick Dun:* Hugh J. Fennell. *Agent to the Trust Estates:* Charles U. Townshend, Esq. *Law Agent:* Charles Woodward, Esq., A.B.

THE DISPOSAL OF THE DEAD.

At the second ordinary meeting of the Liverpool Medical Institution for the present session, held on the 22nd inst., a paper was read by Mr. F. W. Lowndes, with the title "The Disposal of the Dead in Liverpool, Past and Present—Is Cremation preferable to Burial?" The subject excited very much interest, the small lecture-theatre of the Institution, in which the meetings are ordinarily held, being crowded. The paper was written with great ability and moderation, the opinion of the author being in favour of cremation in large towns—an opinion in which the majority of those present seemed to concur.

THE HOSPITAL SATURDAY FUND.

We copy the following from the evening edition of the *Standard* of the 27th inst.:—"It is stated that the expenses of collecting the Hospital Saturday Fund have amounted to the sum of £1100, and that a special appeal is to be made to the leading bankers and merchants of London for subscriptions towards the payment of this sum. If this be true, when the total amount realised is made known it is to be surmised that the expense of the collection will be out of all proportion to the sum obtained."

OPEN SPACES IN THE CITY OF LONDON.

The Court of Common Council of the City of London have referred the question of preserving the open spaces in the City for the use of the public to a committee appointed for that purpose.

## JOHN HUNTER, F.R.S.

In continuation of the unpublished manuscripts of the celebrated Hunter, which appear from time to time in the pages of the *Medical Times and Gazette*, through the courtesy of Mr. Charles Hawkins, a former member of the Council of the College of Surgeons, and Mr. T. M. Stone, of the same institution, we have now the pleasure—which will be shared by many of our readers—in giving the great surgeon's opinion of the standing of hospital physicians and surgeons, drawn from him in consequence of the conduct of the physicians to St. George's Hospital—viz., Drs. Robertson, Baillie, Pearson, Burges, and Aisley. The original manuscript is one of many in the possession of Mr. Hawkins, which were given to him by his friend the late Sir Benjamin Brodie, Bart. The address was delivered by him at a Special General Court held at St. George's Hospital, October 28, 1791, where Hunter died suddenly less than two years after.(a)

"Gentlemen,—St. George's Hospital was instituted principally by surgeons, and the surgeons of that hospital have done more towards its support and character than its physicians; and, indeed, the question of surgery is more an object of an hospital than physic.

"Is there any law in the hospital directing the physician to attend the examiuing surgery patients either as out-patients or in? If there is not, then it has been only an agreement between physicians and the surgeons upon a supposition it was necessary; but as it is not, it ought not to be continued, even if there was an express law, for the physician cannot judge of the propriety or impropriety of a surgical case to be taken in. They appear to be only the clark of the surgeon for the time. But admitting it is thought proper the physician should be present at the examination of surgical patients, as it is the surgeon that does, and only him that can examin, what business have the phisician's pupils to be present. If there is any knowledge to be acquired, it is from the surgeons, not the physicians, they writing the disease only, and taking that from the surgeons.

"A physician attending operation was never instituted as a part of their duty. It has therefore only crept into use by the surgeons allowing it, and which at any time they may disallow. If, then, the physicians themselves have no right, upon what principle can they clame a right for their pupils? If they cannot, then upon what principle do they take pupils professedly intended to practise surgery? This divides itself into two parts—one, the impropriety of receiving money when the knowledge was to arise from the surgions, and in which they had no right; but what is still of more serious consequence to the publick at large is their sending into the country men (not surgions) who have only seen a few operations, who have

(a) The orthography, etc., is strictly preserved, as given in the original.

neither knowen the reason why the operation was performed nor the treatment afterwards; and with an indirect lie in their mouth, they say they were educated at St. George's Hospital. One of the great uses of an hospital is to perfect medical knowledge, that those who were the first cause may benefit by it—a just reward for their charity.

"The impropriety in bring it before this Board is a striking instanee of their folly.

"It is to be hoped the Board will not establish that as a law, whieh was at first only admitted as an indulgenee by the surgeons out of compliment to the physicians, for such an act would be rewarding the physicians for their ingratitude. It ought to be reduced to its first institution—viz., when the governors left those conserns to the gentlemen of the hospital themselves, at first it was in the surgeons' power to admitt or refuse, why should it not be so now?

"It is not in the power of the surgeons to grant any liberty to the physicians or their pupils, longer than their own lives, for it came open to them from their predeeessors, and must go to their suceessors.

"The following is a copy of the application made for a special meeting by the above-named members of the medieal staff—viz., 'Objections having been made, in opposition to an established custom, to the attendance of physicians' pupils at operations, and during the examination of those patients, who, although deemed to be surgical, are always examined by the physicians and surgeons together.'"

We hope to publish oeeasionally more of these interesting letters.

## THE SANITARY LAWS AMENDMENT ACT.

The Act of last session amending the Public Health Act of 1872 and other sanitary acts, so far as they apply to rural sanitary authorities, is now published, and will heneeforth become law. We have epitomised those clauses whieh have direct referenee to the legal powers of the district medical officer as amended and enlarged by the said Act. We are glad to find that many obseure, and therefore inert, provisions have been eleared up, and that other very important additions to the Act have been made, whereby the status and authority of the sanitary offieers will be affirmed, and their legal position better defined.

The 1st section declares that the rural sanitary authority is the same body as the board of guardians, and not a distinet body in the parish, as had been contended; and the laws existing for boards of guardians are equally binding upon them as the rural sanitary authority unless any provision of the Public Health Act, 1872, may be to the contrary. Guardians of urban sanitary distriets will be excluded from taking part in the proceedings of the rural sanitary authority. The sanitary laws will thus be kept as distinet as possible from the poor-laws.

All doubts as to the time the Public Health Act came into foree are now removed. By Section 15 the Local Government Board are enabled to preseribe the manner of appointing a medieal offieer of health for eombined sanitary districts.

Certain expenses whieh were formerly met by a general fund are now to be provided by the special and loeal rates. The following are now to be deemed special expenses:—The maintenance and cleansing of sewers; the providing, repairing, and eleansing of public wells, tanks, etc.; the providing of lighting where duly authorised; and the charges incidental to property transferred to the rural sanitary authority. Section 18 provides enlarged powers of compensation to officers deprived of offiee under the Public Health Act of 1872. Seetion 19 of the new Act enables the chief offieer of poliee in any district to reeover his expenses from the authority in default, whenever he shall require to institute proeeedings for the removal of nuisanees. By Section 20 orders of the Loeal Government Board may be enforced by a writ of *mandamus*.

The 21st seetion requires every rural sanitary authority who shall have been invested with the requisite powers, and when the Local Government Board by order so direct, to make due provision for the proper cleansing of streets, the removal of house refuse from premises, and the cleansing of earth-elosets, privies, ash-pits, and eesspools within their distriet. The seetion imposes a penalty of five shillings a day upon the sanitary authority who fail, without reasonable excuse, for seven days after notice from the oecupier, to remove the refuse or to cleanse out the places above referred to.

Section 33 enables any sanitary authority to purehase, either within or without its district, any land eovered with water or any water for the supply of the district, and to purehase any weir or dam that may interfere with the drainage or water-supply.

Section 40 provides that every notice given on behalf of a sanitary authority shall be deemed to be sufficient if it be written or printed or partly written and printed and is duly signed. The eosts of removing works executed contrary to any by-law may be summarily recovered by the sanitary authority.

The 47th section enables the Local Government Board to enforce the regulations in respect of houses let out in lodgings or occupied by members of more than one family, but not being common lodging-houses, without necessitating the previous application of the local authority.

The sanitary authority are now empowered to make regulations for the ventilation of rooms, the paving and drainage of premises, the separation of the sexes, and the precautions to be taken to prevent the spread of infeetious diseases, in addition to the powers previously possessed.

After representation to any sanitary authority that the water in any well, tank, etc., is so polluted as to be injurious to health, sueh authority may apply to the petty sessions for an order to remedy the evil, and the justices may give orders to prevent the use of the water for drinking purposes, or may order the water to be analysed at the expense of the loeal authority.

Seetion 51 provides that every hospital deelared by the Loeal Government Board to be within a convenient distanee of the district shall be deemed for this purpose to be within the district.

The right and power of complaint in referenee to nuisanees on private premises is extended to nuisanees on publie premises, and may be exercised by any person aggrieved.

By seetion 54, the regulations comprised in the Act of Vie. 26 and 27, cap. 117, section 2, relating to the inspection of artieles of food, are extended to milk, and the proceedings against offenders are facilitated by providing that the justice who is empowered to eonviet the offender need not be the justice who ordered the article to be destroyed.

Section 55 further extends the powers of that Aet by enabling entry, inspection, and seizure to be made upon premises where there is reason to believe that unsound food is kept or concealed, the previous statute only applying where the food is openly exposed or deposited, or kept in preparation for sale.

Section 56 provides for the punishment of persons who, on the letting of houses, knowingly make false representations with respect to infeetious diseases therein, by rendering such persons liable to imprisonment or a penalty not exceeding £20.

## DRS. GUY AND FERRIER ON THE TICHBORNE CASE.

In the reeently published fourth edition of the "Prineiples of Forensic Medieine," by Dr. Guy, in the preparation of which he has been most effieiently aided by Dr. Ferrier, there oecurs, as an appendix, an account of the Tichborne case eonsidered from a purely medico-legal point of view. This is so well done and so interesting that we cannot forbid ourselves the pleasure of republishing that portion of it whieh is more strictly medical. After a brief historieal introduetion, Dr. Guy goes on to say that "the Tichborne ease eould have had no existence but for the strange eharacter of the mother of Roger Charles Tiehborne. She was deseribed by her husband, in a letter to her father, as a perverse, exaeting woman, a slattern, and a seold; fretting her son Roger with misplaeed anxieties; hating, misrepresenting, and abusing her husband's relatives, and everything English; and treating her husband's younger brother, their guest, with unwomanly rudeness. French priests, who knew her well, bore witness to her *idée fixe* and *tête malade*, and the letter just referred to (suppressing some eireumstances whieh would astonish her

father) reads like the description of a case of moral mania. Her conduct at Tichborne showed that her unsoundness had culminated in delusional insanity."

After some further remarks on the ordinary evidence adduced in the case, Dr. Guy proceeds to say:—

"Roger Tichborne is believed to have been drowned in 1854, being then twenty-five years of age; and as the case was decided in 1874, a period of about twenty years has since elapsed, and twelve years between the death of Roger and the setting up of the claim. Arthur Orton was five years younger than Roger Tichborne; but this difference of age is not an important element in the case.

"The questions that either were, or might properly have been, submitted to medical experts were four in number:—1. Was the personal appearance of the defendant such as Roger Tichborne would be likely to present after the lapse of twelve or of twenty years? 2. Was it such as the youth Arthur Orton would be likely to present after the lapse of those periods of time? 3. Were there any marks or scars on the persons of Roger Tichborne and Arthur Orton, which are not to be found on the defendant, or the reverse? 4. Assuming the defendant to be Roger Tichborne escaped from shipwreck, had his mind and memory, by accident, disease, or any other cause, been so affected as to efface the recollection of the leading events of his life, the language of his childhood, and his habits of speech?

"1. In comparing the personal appearance of the defendant with that of Roger Tichborne, we are able to avail ourselves of the evidence of persons who knew Roger well, and of photographs of both parties. It will be convenient to treat separately (*a*) the form, (*b*) the face.

"*a*. Roger Tichborne, at twenty-one years of age, measured five feet eight and a half inches, and weighed nine stone; had a slim figure, small waist, flat ill-formed chest, very narrow hips, thin straight legs, bony hands, and long thin fingers; he walked as if hung on wires, turning his toes out, and had a bad military seat on horseback. He was subject to bad attacks of asthma, of which one at least was of extreme severity, and required very active treatment. On the other hand, the defendant, alleging himself to be Roger Tichborne saved from shipwreck, presented himself in Australia, after twelve years of an active life spent in the open air, a man of prodigious bulk, with broad rounded chest, and small hands and feet. Upon these facts the question arises—could the slim, asthmatic Roger Tichborne of 1854, then a full-grown man, have developed in twelve years into this huge Australian claimant? Making every allowance for the effect of the rough active life the defendant had been leading, not ignoring the cases in which spare but well-formed and otherwise healthy young men have in course of time grown extremely stout, and not overlooking the fact that there was little difference in stature, and not much in age between Roger and the defendant, there can be but one answer to the question. The transformation is incredible, if not impossible.

"*b*. Roger Tichborne's nose was not aquiline, was flat and broad at the end, with large open nostrils, and had a decided twist to the right. His ears, of average size, tapered below, and were without pendulous lobes. His eyes were blue, with long black lashes. His hair was lank, and dark brown, verging on black, and his complexion sallow. The expression of his face was variously described as pensive, woe-begone, and wearing a look of surprise and alarm. He had a weak but pleasant voice. In face, as in person, he resembled his mother, not the Tichbornes, and had a French look, and always when he spoke a French accent. The defendant, on the other hand, has a slightly aquiline straight nose, with well-formed nostrils, and rounded end; large ears with long detached lobes; brown eyes, and hair of the same colour, and disposed to curl; his voice has been described as harsh, hoarse, or gruff; and he speaks vernacular English without a trace of French accent. His whole aspect and demeanour are as English as those of Roger were French; and while Roger resembled his mother, he bears some resemblance to the Tichbornes, but still more to the Ortons.

"In the comparison of face with face we are assisted by two excellent daguerreotypes of Roger Tichborne taken at Chili in 1853, and photographs of the defendant dated 1874; and we are indebted to Mr. Piercy, the portrait painter, skilled in various art processes, photography among the number, for so handling the two portraits as to be able to compare the features of the one face with those of the other. This was done by creating from the originals two untouched transparencies on glass, in which the lines drawn from the inner angle of the eye to the parting between the lips are equal. The point of view of the two portraits is so nearly the same as to justify the assertion that 'it is physically impossible that they could have been taken from the same person': that, 'in fact, the faces are so far from being alike, that they are of opposed types.' This decided expression of opinion is fully borne out by a detailed examination of the eyes, ears, and nose taken in conjunction with the mouth.

"*The Eyes.*—The brows of Roger are wide apart and singularly well defined, and the eyes tend upward from the nose; the brows of the defendant are much nearer together, and of ill-defined outline, and the eyes tend downward. The iris in the daguerreotype, which, by its light tint, confirms the evidence of witnesses that the eyes of Roger were blue, contrasts strongly with the uniform dark colour of the same part in the photograph of the defendant.

"The differences between the ears of Roger and the defendant afford evidence which it is no exaggeration to term 'startling.' The ear of the defendant is longer by one-third, the greater length being largely due to the detached pendulous lobe, which in Roger had no existence.

"The noses and mouths, taken together, display differences scarcely less marked. The nose of the defendant, with which the lips may be said to harmonise, is 'a narrow one, in a fat face'; that of Roger, 'a broad one with inflated nostrils, in a thin face.' The central groove which joins the nose to the upper lip is narrow in the defendant, wide in Roger. The two mouths are also quite different in character.

"If, then, we compare the form and face of Roger with those of the defendant, there are good grounds for answering the first question in the negative. The personal appearance of the defendant is not such as Roger Tichborne would have presented after the lapse of twenty years.

"2. Arthur Orton, when he presented himself at the Shipping Register Office, a growing lad of fourteen, was entered on the books as having blue eyes, a fair complexion, and light hair, and as being free from personal marks. When he again presented himself at eighteen, he was measured in his shoes, and found to be five feet nine inches and a half. This was the only addition made to the register, though the entries preceding and following take note of personal marks, and of small-pox marks among the number. It is a just inference, therefore, that at eighteen years of age he had no personal marks that attracted attention—that he was not pitted with small-pox, did not wear carrings, and had no conspicuous scars on hands or face.

"In further comparing the defendant with Arthur Orton, we shall, as before, take first the person, then the face.

"In *person* the lad Arthur Orton, according to the evidence of the witnesses on both sides, was a big, fat, awkward boy, with a slouching or shuffling gait, more or less in-kneed; known as the 'fat boy' and as 'bullocky Orton.' A witness for the defence had weighed him, and found him thirteen stone and a half; and, allowing half an inch for shoes, he measured at eighteen what the defendant measures now—five feet six inches. The lad of eighteen was, therefore, for his age, as remarkable for size as the defendant is now. As to stature, it must be admitted that the fact of men, taken one with another, growing two inches after eighteen, creates a difficulty in admitting the identity of the two persons. But as there are many youths who stop growing even before eighteen, it is possible that Arthur Orton belonged to this exceptional group. It is also possible that the slouching gait of the lad may have been improved with age and the altered circumstances of the defendant, who for eight years has been acting the part of a gentleman.

"The face and features of the defendant have an unmistakable resemblance to members of the Orton family—a resemblance strongly insisted upon by most of the witnesses for the prosecution, and admitted by several witnesses for the defence. That Arthur Orton had light hair may be taken as an undoubted fact, and that he had a light eye or a blue one as scarcely less certain. The defendant's hair and eyes are certainly not light: they are some shade of brown, described by an Australian witness as *dun-coloured*. In complexion there is no difference; and there is no fact better established than that Arthur Orton was not pitted with small-pox, except perhaps that other fact that he had St. Vitus's dance when a child, and that the disease left behind it a habit of twitching the eyebrow, which the defendant also has. It should be added that almost all the witnesses for the defence gave Arthur Orton big hands and feet, and several of them a big

head also. The defendant's hands and feet are not large, nor his head disproportioned to his size. But it is possible that in the big, stout, ungainly boy, carrying his fat chiefly on his limbs, not on his body, the hands and feet may have appeared large. Be this as it may, the fact remains that the light hair and eye of Arthur Orton must have changed to brown in order that Arthur Orton and the defendant may be accepted as identical. These changes, taken together, must be pronounced improbable. That they are impossible cannot be affirmed till the attention of scientific men has been distinctly drawn to the question, and time has been allowed for the collection of facts bearing upon it.

"If now we take the figure and face together, we infer that the youth Arthur Orton might have developed into the defendant if he stopped growing at eighteen; if his hands and feet came to appear less out of proportion to the rest of his body; if he improved in gait and bearing; and if the light hair and eye underwent a change of colour, and assumed a darker tint. But it is much easier to believe that these changes did happen, than it is to doubt the reality of the recognition of the defendant as Arthur Orton by upwards of forty witnesses (among whom Mary Ann Loder from Wapping, Donna Hayley from Melipilla, and Mrs. McAlister from Australia are specially deserving of mention), whose firm, decisive, and unshaken testimony must be admitted greatly to outweigh the balance of adverse testimony borne by the smaller number of witnesses for the defence remaining after the subtraction of those whose expenses were disallowed, or who were otherwise discredited.

"3. Roger Tichborne had no congenital marks; but he must have had scars of an issue on the left shoulder, of repeated bleedings on the arms, and of single lancet-cuts on the ankles and temple; as well as tattoo-marks on the left arm of a heart, cross, and anchor, to which Lord Bellew alleged that he added the initials R. C. T. None of these marks are to be found on the defendant, who, on the other hand, adduced as proof of identity a congenital brown mark on the left side, of which Roger's mother knew nothing; and he had a twitching of the eyebrows, such as followed Arthur Orton's attack of St. Vitus's dance, from which Roger Tichborne was proved to be free. These facts are fatal to the defendant's claim to identity with Roger Tichborne.

"On the question whether he and Arthur Orton are one and the same person much light is thrown by the physical marks. The defendant has a well-marked linear scar of an incised wound on the back of the head, answering to a cut from an oyster-shell which a witness for the defence saw inflicted; a scar on the right eyebrow, and across the nose, which seems to have been broken; and the scar of a cut on the left ankle. Other scars (one inside the lower lip, and several small scars on the arms and legs) are unimportant, except as showing that the skin was apt to be so marked. It is possible, too (for the evidence on these points is very conflicting), that he had scars on the left hand and left cheek.

"Of the long, narrow, light-brown mark on the left side following the line of the ribs, it should be observed that there is no better reason for believing it to be congenital than the assertion of the defendant. It has not the deep, distinct colour of most congenital marks, but such a tint as the skin often assumes, and sometimes retains for months or even years, after severe attacks of erysipelas, and after the application of blisters or mustard plasters. It might have faded from a brighter colour in childhood, or have resulted later in life from the pressure or friction of some article of dress.

"But there are two marks to which a peculiar interest attaches; for the defendant professes ignorance of the way in which they were brought about. The one is above the left wrist; the other near the insertion of the left deltoid muscle. The mark above the wrist was probably produced by caustic, and is quite consistent with the belief that the letters A. O. had once been tattooed there. Donna Hayley saw the two letters A. O. about the size of a shilling on the forearm (uncertain which arm); and Mrs. Mina Jury, who also saw the marks, thought they were on the left arm. The mark on the upper arm, the size of a florin, is a group of round scars, with intervals of healthy skin, and is such a scar as would be produced by vaccine lymph inserted at several points.

"The personal marks found on the defendant are, therefore, on the whole, favourable to his identification with Arthur Orton.

"4. On the assumption that the defendant is Roger Tichborne, it ought to appear that after the wreck in 1854 the defendant had led a life of such extreme hardship, had sustained such a severe injury, or had had some such disease of brain or nervous system, as would account for the loss of memory of the things best known to Roger Tichborne. Of this there is no evidence whatever. If we could assume the literal truth of the improbable and inconsistent story of the rescue from shipwreck, it is clear that the very day after he landed in Australia the defendant obtained employment, and discharged with intelligence the duties he undertook; and his later correspondence with the Castro of Melipilla, whose name he had assumed, exhibits a singularly tenacious memory of the names and persons of those with whom he had spent eighteen months many years before. If, then, the question is made to assume this form—Were the defendant's misstatements respecting the whole life of Roger Tichborne the result of ignorance, or lapse of memory? there is but one possible answer: what has been represented on his behalf as want of memory could have been nothing less than sheer ignorance of the facts and events referred to. The same memory that claimed to recollect the name of a dog, or the number of a trooper's horse, could not have failed when tested with the Christian names of his mother, the handwriting of his father, his place of birth, his Paris residences, the companions of his childhood and youth, the college where he was educated, the studies he pursued, the examinations he passed, the relatives in whose houses he was always a welcome guest, the agent with whom he was in constant correspondence, the lawyer who made his will, the friends who helped him, the gallant soldier who gave him his commission, and the long, painful correspondence which passed between himself and the mother of the lady whom he would have made his wife. Nor ought the fact to be overlooked that the defendant never professed to have forgotten any circumstance connected with the lives of Roger Tichborne and his relatives. Roger's mother signs her Australian letter H. F. Tichborne. He does not say that he has forgotten her Christian names, which Roger knew well; but for *Henriette Felicité* he substitutes the homely English names *Hannah Frances*. Roger took leave of his dying grandfather, Mr. Seymour, at Bath. The defendant does not pretend to have forgotten the event, but shifts the scene to Knoyle. It was therefore of the very essence of the claimant's case that he should display a tenacious and accurate memory. It was by the pretended exercise of it that he gained all his adherents. To admit the loss of it would have been fatal to his case.

"Roger Tichborne's native language was French. He continued to speak it in France up to the age of seventeen, and frequently in England up to the age of twenty-five. He acquired English later, and spoke it to the last with a French accent. The defendant could not speak or read French; but he spoke Spanish as a man who had spent eighteen months in South America might be expected to do. Assuming again the identity of the defendant with Roger Tichborne, had anything occurred to utterly destroy his knowledge of French? There is but one answer. It had not. The defendant spoke Spanish years after he had acquired it. What reason, then, could there be for his having altogether forgotten French if he had ever known it? The memory which he actually displayed affords the best of all reasons for supposing that when he professed to have forgotten French, as when he grossly misstated the events of Roger's life, he was equally guilty of falsehood and deception.

"The defendant, as shown among other things by the letters he wrote, was singularly tenacious of the habits he had formed. It is, therefore, a fair presumption that he would have retained at least a trace of the strong French accent with which Roger Tichborne always spoke English.

"The medical evidence taken as a whole may, therefore, be pronounced to be in perfect keeping with the verdict which proclaimed the defendant to have perjured himself in claiming to be Roger Tichborne, and denying that he was Arthur Orton. If Roger was bled repeatedly in the arm (to say nothing of ankles and temple), if he had an issue on the left shoulder kept open for two or three years, and if he was tattooed as alleged, the defendant is not Roger. If Arthur Orton had the letters A. O. tattooed above the left wrist, and they did not exceed half an inch in diameter, the scar in that position, of the cause of which the defendant alleges utter ignorance, is quite *consistent* with the assertion that he is Arthur Orton—an inference strengthened by the existence of a second scar equally unexplained, and not seriously weakened by the difficulties already admitted, when fairly weighed against the evidence of the many competent and credible witnesses who affirmed that the defendant sitting in court was no other than the Arthur Orton they had known at Wapping, in South America, and in Australia."

## FROM ABROAD.

Alphonse Guérin's Cotton-Wool Dressing for Wounds. We have from time to time given an account of the adoption of this mode of dressing by various French surgeons, and of the great success attributed to it; but we have nowhere seen a better description and appreciation of it than that contained in a paper read before the Massachusetts Medical Society by Dr. Curtis, and published in the *Boston Medical Journal* for August.

M. Guérin first introduced, at the end of 1870, this plan of treatment, which consists in surrounding the wounded limb by very large quantities of cotton-wool, and rendering the whole dressing firm and compact by tightly applied bandages, which are left undisturbed for several weeks. This, of course, at first seems contrary to all the rules of good surgery, and is a practice which would not be likely to be followed except by those who had witnessed the admirable results which it has furnished. Impelled by the disastrous results which followed gunshot wounds and operations during the late war and the Commune, and which were chiefly due to pyæmia and allied infections, M. Guérin, a believer in the germ theory of disease, resolved to make a large use of the intercepting powers of cotton-wool. Although the trials were commenced amidst the most unfavourable circumstances, and when all were dying around, the most remarkable success attended them, and this has continued since M. Guérin's appointment to the Hôtel-Dieu, where hospital infection had become almost endemic, even in ordinary times.

The wool employed must be of good quality, clean, and free from impurities. If there be a glazed surface, this must be stripped off, and the sheets of wool, torn into long strips about a foot wide, must be rolled up so that they may be methodically applied around the part. The quantity of wool used at a dressing is sometimes enormous, Guérin having employed as much as four pounds. The mistake made by beginners is commonly to apply far too small a quantity. A number of rollers two inches wide and eight or ten yards long must be at hand; and these have to be abundant, as the bandages removed from some of Guérin's dressings have measured in all from 150 to 200 yards. These consist only in part of the rollers applied at the first dressing, others being afterwards added when the first show signs of loosening. The dressing of the wound after operation is applied in another apartment, where the wool is stored in supposed security from hospital germs. In future, M. Guérin intends to have it submitted to a temperature of about 400° in an oven heated by boiling oil. After all hæmorrhage has ceased, the surface of the wound is washed with a 1 per cent. solution of carbolic acid. Silk ligatures are used, and are cut off short, except one of the threads of that attached to the main artery. As a general rule, M. Guérin does not attempt immediate union; and the space between the flaps of the wound being held apart, this is completely filled with little wads of loose cotton-wool evenly superposed. Then sheets and rollers of the wool are wrapped and wound evenly and methodically around the part, so as to surround it with a homogeneous mass of even thickness, which must in all cases extend beyond the first joint above the seat of amputation, involving the whole thigh, pelvis, chest, etc., as the case may be. Great as the quantity applied may be, more must be added if firm pressure in the locality of the wound gives any pain. This wool has to be securely fixed in its place by means of bandages, which also establish a considerable amount of elastic compression, which M. Guérin regards of almost as much importance as the filtration of the air by means of the cotton.

"The first turns of the bandage serve to secure the soft mass of wool, and to mould it, as it were, into something like its future shape and size; oblique and spiral turns are made in various directions up and down the limb wherever any bulging shows an insufficient compression of the wool, particular care being taken to compress the end (for which a sort of capellina has to be applied over the end of the stump) of the dressing as well as its sides. Gradually the wool gets covered at every point by the successive overlapping turns of the roller, which grow tighter and tighter as the application progresses, the mass of wool growing smaller and more compact, while preserving an even surface and a symmetrically ellipsoidal or ovoid shape. The last layer of rollers must be applied with all the strength that the strongest hands can afford, this enormous degree of constriction giving no pain and doing no harm to the parts, provided that the quantity of wool be sufficiently large. When completed, the dressing forms a firm, smooth, hard mass of uniform consistency, through which a blow or any strong pressure expends its force without reaching the subjacent parts, and in which percussion gives a sonorous note like that yielded by a healthy thorax."

After the lapse of about twenty-four hours the bandages are apt to become somewhat loose, and another layer of them has to be applied to again obtain the same firm consistence and elastic compression. Generally the dressing then retains its condition for several days; but it has to be watched, and, when defective, new and tight bandages have to be applied. If all goes on well, the dressing may remain undisturbed for two or three weeks. Whether all is doing well is ascertained by the state of the dressing and the general condition of the patient. If the discharge be only moderate, it may remain hidden among the depths of the cotton, but when profuse it may penetrate through the dressings or escape alongside of them; and the rule is to apply more wool and rollers, so as to cover up those which have become soiled. In even successful cases a very penetrating smell, requiring deodorising solutions, is produced, but this is quite different from the smell of putrefying pus. The general condition of the patient is the best guide, and for judging of this the use twice daily of the thermometer is indispensable. All untoward accidents that require the removal of the dressing are indicated by a rise of temperature; but they are of very rare occurrence when the application has been properly made.

If all goes on well, the dressing may be opened about the fifteenth or twentieth day, and after the rest of the envelope has been cut through and removed, the deepest layer is found converted into a moist brownish felt covering the end of the stump, and closely adhering to the skin around the wound. This adhesion is advantageous, as it confines the discharge and prevents it coming in contact with the outer air. Between the surface of the wound and neighbouring deepest layer of wool is a small space containing a few drachms of thick, offensive fluid, which on analysis proves to be an emulsion of fatty granules, the pus-cells having probably undergone fatty degeneration. No traces of minute organisms, dead or alive, are detectable. The small quantity of the discharge—often not exceeding half an ounce—is a matter of great surprise. The wound is found to have granulated from the bottom, and the bone has become completely covered, while good granulations are filling up the space between the flaps. The limb above is of a healthy and natural appearance, being neither red nor swollen. Formerly M. Guérin used to reapply the wool again and again until complete healing was obtained; but it has been ascertained that after a certain stage of reparation has been attained further progress under the wool is very slow, and now, after removing the dressing at the end of the second, third, or fourth week, he brings the flaps together by adhesive plaster. If, however, the bone be not covered, or the state of the wards is such as to fear infection, he reapplies the wool dressing, and leaves it on for a week or fortnight.

The fear of secondary hæmorrhage has deterred some from adopting this practice, but it is of very rare occurrence, and easily detected, as a very slight quantity of blood soon traverses the dressing, and exhibits a spot which rapidly extends. Freedom from pain is one of the most marked results, this passing away a few hours after the operation, not to return again. Where pain persists it is usually from the wool being insufficient. Suppuration, either in the form of abscesses or burrowing, when a sufficient amount of compression is employed, is not met with; the amount of pus discharged from the wound being indeed remarkably small. Erysipelas, which is of such frequent occurrence in the Paris hospitals, has not affected any one of Guérin's cases. In even the most successful cases there is a moderate amount of traumatic fever, and as long as this continues slight during the first week, the patient also being free from pain, he may be considered to be in a satisfactory condition; but if after the sixth or seventh day the temperature remain high, or if it reascend after a temporary cessation of the legitimate traumatic fever, there is reason to fear the existence of some complication, which is generally due to a defect in the dressing. In most cases it will be found that some discharge has reached the exterior, and become exposed to the air; and if this spot be disinfected, and a fresh layer of wool and bandage applied, Guérin states the febrile condition will disap-

pear. Persistent pain and fever accompany sloughing, and when present the dressing must be removed. While not offering an absolute security from pyæmia, his mode of dressing has immensely diminished the number of cases, and the comparative immunity thus obtained has been amply testified to by so many of the most distinguished Paris hospital surgeons having adopted the practice. Amputation wounds are those which have furnished the most numerous and striking examples of success; but almost every variety of accidental wounds of the limbs have been treated by it.

"The difficulties of successful application are much greater in cases of compound fracture than in amputations, which are to be recommended for first trials of the dressing. Injured hands and feet are also good cases for beginners, as they may be put up in cotton-wool like amputation-stumps, care being taken to separate the toes or fingers with wads of wool. As a rule, it may be said that the dressing is most easily applied to the extremities of the limbs, and that the difficulties of performance and the chances of failure increase as the injury approaches the trunk. It is, therefore, more easy to apply the dressing in an amputation of the leg or forearm than in a case where the thigh or arm is the seat of operation. . . . In conclusion, I will briefly recapitulate the merits and demerits of Guérin's dressing. Its *advantages* are—1. Entire or partial prevention of pyæmia, erysipelas, and hospital gangrene; 2. Painlessness; 3. Immobility of the injured parts, to which, with the firm but even compression, is due the antiphlogistic action of the dressing; 4. The rarity of the dressing; 5. The transportability of the patient, whose injured limb is protected from all chances of mechanical injury. The *disadvantages* are—1. The necessity of ceaselessly watching every case by all the means at our command, including the daily use of the thermometer; 2. The slowness with which the last stages of reparation are effected under the cotton-wool; 3. The more or less disagreeable smell which the dressing generally acquires."

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### Professor Virchow on Louise Lateau.

This bleeding girl, who has for the last six years been the cause of so much religious excitement in France and Belgium, has formed a topic for Prof. Virchow at the recent meeting of the German Scientific Association at Breslau. Her miraculous fame, it seems, has extended largely in the Rhenish provinces of Germany, and an account of her doings, drawn up by Prof. Rohling, of Munster, has been, it is said, circulated to an extent of more than 50,000 copies. One of these has been addressed to Prof. Virchow, in order to induce him to investigate the alleged facts of the miracle by personal inspection. The girl was born in 1850, and from an early period exhibited strong tendencies to religious practices. Since April, 1868, when she completed her novitiate, she has been always exhibiting the so-called miraculous appearances. Each succeeding Friday the hæmorrhages termed stigmata appeared at different parts of the surface, until in September they encircled the forehead as if produced by a crown of thorns. A Belgian physician, Dr. Goss, who then attended her, expressed the opinion that she could not be effectually treated at home, and proposed removing her from amidst her domestic circle. This was refused, and she came under the care of Dr. Lefèvre, who observed a long series of remarkable circumstances, and determined that the red fluid discharged from the surface was really blood. Bleeding of this remarkable character had never before been seen, and must arise, in his opinion, either from miracle or imposture. The hæmorrhage did not proceed from apertures, but as a consequence of the formation of vesicles, which, commencing on the Thursday night, became fully developed on the Friday, the skin being neither reddened nor swollen. On the vesicle bursting, the fluid first discharged was clear and transparent, blood then issuing from the skin without this exhibiting any aperture or having suffered any injury. Three other phenomena were afterwards added—viz., a state of ecstacy, during which the girl was insensible to the strongest stimuli; a complete deprivation of sleep since October, 1872; and abstinence from all food except a daily wafer and two spoonfuls of water weekly. This is all she has taken since March 30, 1871, and yet she is in a state of blooming health. Everyone must admit, Prof. Virchow observed, that there is no necessity to take a journey to her now famous residence at Bois d'Haine in order to be convinced that all this is absolutely impossible. The contradiction to admitted natural laws, and the question between an imposture or a miracle, stand forth prominently enough. But the detection of all kinds of simulation—even a simulation of abstinence from food, and of the absence of all dejecta—is attended with enormous difficulty. Of this the Professor can speak practically, for, having for the last sixteen years been physician to a prison, he has found that even in its well-organised hospital it is very difficult to get upon the track of the various tricks and evasions of the malingerers. Whilst willing to take Louise Lateau into his custody, and submit her to investigation, he would not consent to visit her at home, and endeavour to detect her simulation under conditions arranged by other persons. The only physician who proposed removing her from home did not attain his end. If, as has been said, the renowned Schwann has examined into the case, and has declared that everyone of honourable feeling must yield to the evidence it affords, doubt may be very well permitted, until he publishes his detailed report of the investigation, whether he has not been deceived by the contrivances that were employed. If a miracle be regarded as the negation of natural laws, yet must it be insisted on that the negation of these laws through the appearance of contradictory facts is no miracle. Otherwise the great advances in science could not take place, for these consist in the abolition of hitherto received laws. If it be demonstrated that Louise Lateau has been able to live without food, we may possibly be enabled to do the same, and a great problem in social science will have been solved. But how does the metamorphosis of tissue proceed in her case? What is excreted where nothing is received? Whence the carbonic acid which she gives out? And what remains of the doctrine of the unchangeableness of matter? Science has also her miracles, as wonderful as those of the Church, when the intellect seizes hold of a new truth by intuition. The laws of the pendulum became clear to Galileo through observing the vibration of the lamp of a church, as did those of gravitation to Newton through a falling apple; while the sight of a sheep's skull in the sand revealed to Goethe the vertebral characters of the cranium. It is this sudden manifestation which exposes false laws and proclaims the true. A true law cannot, in the sense employed by the hierarchy, be suspended and denied in its constancy and eternity. The miracle which is opposed to natural laws, submitted to searching scientific examination, becomes explicable, as when, for example, blood on the host was explained by the appearance of monads in a peculiar form of mouldiness. Finally, every miracle exhibits its tendency, which natural science does not. The miracle is produced with a determinate aim, seeks notoriety, stimulates attention, and advances to meet all mankind. Nature's laws are retiring, these having no interest in man,—it being man who has interest in the laws.

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## REVIEWS.

*A Practical and Theoretical Treatise on the Diseases of the Skin.* By George Nayler, F.R.C.S., Surgeon to the Hospital for Diseases of the Skin, Blackfriars. Second edition. London: Smith, Elder, and Co. 1874.

We are glad to welcome a new edition of this excellent work, especially as it brings with it so much new matter, and so many results of ripened experience. Although it is re-written to a considerable extent, yet Willan's classification is still adhered to; and perhaps for clinical purposes it is, after all, as good as any that can be selected. It might have been better, however, to have placed syphilitic diseases in a separate chapter.

The reader will not find much that is new concerning the anatomy and pathology of the skin, or about many points which have been discussed in foreign journals; but he will find most accurate and careful accounts of the clinical aspects of diseases of the skin, drawn from an unusually large field of observation by a writer who has utilised his opportunities well.

We would especially point to the chapters on tinea tondens, lupus erythematosus, and pityriasis in illustration of our meaning.

Mr. Nayler's treatment is simple, and his directions as to the application of remedies precise. He makes a larger use of mercury and sulphur than do many modern dermatologists; and he believes in the utility of the former in many affections besides those truly syphilitic.

A most interesting chapter on feigned or hysterical diseases, and one on skin diseases following vaccination, both by the late Mr. Startin, form valuable appendices to the present edition.

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*A Formulary of Selected Remedies, with Therapeutic Annotations, Adapted to the Requirements of General Practice, Hospitals, Dispensaries, and other Public Institutions; with Index of Diseases and Remedies, Diet Tables, etc.* By E. A. Kirby, M.D., M.R.C.S. Eng., late Physician to the City Dispensary. London: H. K. Lewis. 1874. Pp. 148.

This is likely, we think, to prove a very acceptable and useful little handy-book to the general practitioner. Dr. Kirby states that the object of the work is "to aid the busy practitioner in the selection and administration of the medicines he prescribes, and to help him in *dispensing*"; and it appears to us that the book is very well calculated to achieve that object. Members of the lay public may, no doubt, if they get hold of the work, make a foolish and dangerous use, or misuse, of the index of diseases and remedies; but we know of no power by which fools can be prevented from believing that they are wise, or can be restrained from meddling, if so minded, with things that they had infinitely better leave alone; while the book is only meant for, and contains formulæ and a good deal of information that cannot fail to be of good service to, the busy and often hard-pressed practitioner.

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*Nordiskt Medicinskt Arkiv.* Redigeradt af Dr. Axel Key, Prof. i Patolog. Anat. i Stockholm. Sjette Bandet. Första Häftet. Med 2 Taflor, 7 Träsnitt, och 5 Heliotypier. 1874. Stockholm: Samson och Wallin.

*Northern Medical Archives.* Edited by Dr. Axel Key, Professor of Pathological Anatomy at Stockholm. Vol. VI. Part I. With two plates, seven woodcuts, and five heliotypes. 1874. Stockholm: Samson and Wallin.

To the readers of the *Medical Times and Gazette* the *Northern Medical Archives* is not unknown as the chief exponent of the advances made in Scandinavia in medicine and the allied sciences. Our pages have been enriched more than once by papers which appeared originally in Dr. Axel Key's journal, and it is with a half-apology that we notice the first number of the sixth volume of so well known and highly esteemed a periodical. Last year a new feature in the structure of the *Archives* was introduced, and thereby a greatly enhanced value has become attached to them. To each number a *compte-rendu* in French of the original communications is now appended, and the latter are thus brought within the reach of those by whom the Swedish and Norwegian tongues are not understood.

The present number contains six longer articles—(1) "On Syphilis and Erythema Multiforme," by Professor Ernst Odmansson, of Stockholm; (2) "On the Sting and Poison-Organs of the Sea Dragon (*Trachinus Draco*)," by Professor F. T. Schmidt, of Copenhagen; (3) "Chemical Analysis of the Air in Dwelling-Rooms hung with Arsenical Wall-Papers," by Dr. N. P. Hamberg, of Stockholm; (4) "On the Progress made of late years in the Development of Physiological Laboratories and Laboratories for Theoretical Pathology in the Chief Continental Universities," by Dr. P. L. Panum, of Copenhagen; (5) "On the Openings communicating between the Ventricles of the Brain and the Subarachnoid Spaces," by Professor Axel Key and Dr. Gustaf Retzius, of Stockholm; and (6) "On the Normal Anatomy of the Prostate," by Axel Iversen, of Copenhagen. Under the heading "Shorter Communications," Professor Nicolaysen, of Christiania, contributes a paper on Hæmatometra as a Sequela of Double Uterus and Defective Communication between the Vagina and one of the Cavities; Professor Panum describes a new Apparatus for Microscopical Examinations under a high, constant, and accurately measured temperature; Dr. M. V. Odenius, of Lund, offers some remarks on the Methods by which Infection from Cadaveric Poison is brought about; Professor Axel Key and Dr. Retzius write on the Employment of the Congelation Method in Histological Research, and the same authors contribute a study of the Subarachnoid Trabeculæ.

Want of space precludes the possibility of giving an analytical account of any of these papers, which are nevertheless for the most part of a high order of merit. This number of the *Archives* also contains the usual Quarterly Report on the Progress of Medicine in Scandinavia. The present Report refers to the third quarter of 1873, and contains a *précis* of all the important communications on medical science which appeared in the Norwegian, Swedish, Danish, or Finnish periodicals during the time mentioned.

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# FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, August 24.

The coming Winter Session: Introductory Lectures; College Fees—Number of Associations and of Hospitals in the United States—Relative Rank of the Army Medical Corps: Proposed Memorial to Congress on the Subject.

The time is now near at hand when the various medical colleges of the country will don their armour for the winter campaign. The warm summer months of July and August are periods of complete relaxation and rest from such labour in this country, and lecturers and scientific explorers put away for the moment almost all thoughts of the morrow which is to bring them renewed reputation and popularity, while exciting their otherwise languid vitality with the minutest amount of literary pabulum compatible with the elevated temperature of the season. Practitioners and teachers are human, and it is difficult for them to fix their minds on the hard demands which the cooler months make upon their time and talents, when they see their patients and auditors lazily basking in the summer sunshine. In a few short weeks, however, a complete transformation will occur. Preliminary courses of lectures will be given at a number of the medical colleges during the month of September, and the current of preparation of the student-minds of the country for entrance into our noble profession will again run smoothly. These preliminary lectures serve a twofold purpose—they interest and occupy those who come to study before the regular winter courses commence, and they secure recruits for the particular college at which the lectures are delivered. The subjects chosen are such as are not usually embraced as branches in a continuous and systematic course, and do not count as a portion of the regular curriculum of college instruction, although, as will be seen, many of the topics discussed are necessarily interwoven with those of the winter. In one of our principal colleges, for instance, the branches taught in the regular course, speaking of them generally, embrace surgery, obstetrics and diseases of women and children, chemistry, materia medica and general therapeutics, institutes of medicine and medical jurisprudence, practice of medicine, and general descriptive and surgical anatomy, with the usual variety of clinical lectures. The preliminary course includes lectures on toxicology and kindred topics of medico-legal interest, diseases of the nervous system, dermatology, syphilis, ophthalmology, otology, pathological anatomy, minor surgery, etc. It was the fashion a few years since to devote a whole week at the opening of each winter course in October to introductory lectures; but a much more sensible programme is now followed, a single lecture being given—on a Monday, for instance,—and the next day's work being entered upon by all the professors, according to the regular schedule of the winter's labours. Perhaps in time even this single day of devotion to the platitudes and inconsequentialities of an introductory lecture will come to be looked upon as a waste of valuable time on the part of both student and teacher.

An uninterested beginner, puzzled in his choice of a school, might be wofully perplexed if he attempted to form an opinion of the merits of any one of them from a perusal of the advertisements in a medical journal. I have now before me a copy of one of these latter publications containing the paragraphic notices, paid for by each institution, of twenty-eight different medical colleges. He would be struck at once with the singular variation in the fees asked by each for a complete course of instruction. The colleges of the western section of the United States, as a general rule, receive students at a much less cost than those of the eastern portions. This is due to the fact that they cannot offer the same absolute clinical and other advantages as the larger eastern cities; that they are in some cases the recipients of State aid; that they desire to retain as much as possible the students of the west at home, to promote the success of their own

schools, etc. It is not intended, except in rare cases, where the schools lack tone and dignity, that those of any one section should attempt to underbid those of any other; but the plan is successful in checking a tide of temporary medical emigration to the east, which might be fatal to the interests of the opposite section. In spite of all this, quite a number come to the Atlantic coast to quaff their draughts of learning at the same founts at which their fathers drank many years since. A few specimens of this variation in the cost of a course of lectures will illustrate more clearly the difference alluded to:—The Jefferson Medical College and University of Pennsylvania, at Philadelphia, charge for a full set of professors' tickets 140 dols.; the Medical College of the Pacific, and the Tolana Medical College at San Francisco, 130; St. Louis Medical College, 105; the University of Buffalo, 75; the University of Nashville, Tennessee, 50; the Chicago Medical College, 50; the Medical College of Ohio, Cincinnati, 50; the Cincinnati College of Medicine and Surgery, 25 dols.; the Indian Medical College, no fees.

Some interesting statistics have recently been published by Dr. J. M. Toner, President of the National Medical Association, in regard to the regular medical associations and hospitals of the United States, from which it appears that, so far as he has been able to learn, there are five national societies and 408 other medical societies, with a total membership of 22,791. There are 178 hospitals in the various sections of the country, two of which were founded in 1751. Of these eighty-three are public, and thirty-nine private hospitals; thirty are supported by state aid, fifteen by cities, seven by religious denominations, sixty-seven by patients and other sources; eighty-two have a capacity of less than 200 beds, thirty-eight of between 200 and 400 beds, eighteen of 400 beds and over, and an aggregate of 146,472 patients treated annually. Nine of these hospitals are connected with medical colleges, thirty-six offer clinical instruction, and 580 constitutes the number of the aggregated medical and surgical staff.

An unsettled question, to which I made allusion in a previous letter detailing the proceedings of the National Medical Association at its recent meeting, still exists, in the absence of any legislative interference, in the false position occupied by the medical corps of the United States army with regard to its relative rank. It will be remembered that Congress is again to be invoked, that the wrongs now borne by these medical gentlemen shall be righted. The attention of the Association was called to this subject in May, 1873, when, as we learn from the committee's report, a letter from the medical officers of the army was presented, which set forth that in the present organisation of the army the medical staff is not upon an equal footing with the other staff corps as regards rank, and that still further injustice is done, not only to the medical staff, but to the profession at large, by the legislation which at present forbids any promotions or new appointments in the medical department. The president of the Association was directed to appoint a committee of five to memorialise Congress on the subject, and the members of the Association pledged themselves that each would make suitable representations to the member of Congress from his own district in behalf of these objects.

The letter above referred to was signed by prominent surgeons and assistant-surgeons of the army, and showed that they had not had the same consideration shown them in respect to rank as had been accorded to the navy, and that the record of services of this meritorious body of officers entitled them to the same advantages that had been granted to others. To quote the language of the letter—"When the rebellion broke out, the medical staff of the army, with a total of 115 officers, had but one of higher rank than that of major, while in the Quartermaster's Department, with 37 officers, 5 were above that rank; in the Commissary Department, with 12 officers, 2 were above that rank; in the Adjutant-General's Department, with 14 officers, 2 were above that rank. The act of Congress of July 28, 1866, defined the 'peace establishment of the United States,' and re-organising, as it did, with the view of permanence, all the various departments of the army, it might have been supposed that equal justice in the matter of rank would have been meted out to each separate branch of the staff." That this was not the case so far as the Medical Department is concerned is shown by the following:—

"By its provisions the total number of medical officers was fixed at 217, 7 of whom were above the rank of major, or 3·22 per cent. The Quartermaster's Department was to consist of 76 officers, 17 of whom were above that rank, or over 22 per cent.; the Subsistence Department of 29 officers, 5 being above that rank, or 17 per cent.; the Adjutant-General's Department of 20 officers, 7 being above that rank, or 35 per cent.; the Engineer's of 109 officers, of whom 19 were above that rank, or over 17 per cent.; the Ordnance of 64 officers, with 8 above that rank, or 12·50 per cent. It is thus seen that the Medical Department was given a much smaller proportion of officers of rank than any other staff department. The medical officer under the present law is accorded the rank of captain after three years service; he is promoted to major by seniority, such promotion not ordinarily occurring in less than fifteen years' service, and that is the end of his prospects of advancement, unless he may be so fortunate as to secure a medical purveyorship, which can necessarily be within the reach of but very few, those positions being but five in number, and vacancies in consequence occurring but very seldom. Not only is this a great injustice to those surgeons on the active list, but it operates still more injuriously towards those old and meritorious officers, who, having given their best years to the country, become disabled by age or infirmity and are desirous of availing themselves of the privileges of the retired list. The adjutant-general, quartermaster, or engineer of thirty years' service can almost certainly retire with the rank of colonel, certainly with that of lieutenant-colonel, while the veteran surgeon is laid aside with the rank of major, and an income hardly sufficient to support his station as a gentleman or to sustain his family. The Medical Department, the letter states, is not willing to be accorded a second place in comparison with any other arm of the service. It points with pride to its roll of honour during the last war, to the 38 of its members who were killed in action or died of wounds, to the 12 who were killed by accident in the performance of duty, to the 4 who died as prisoners of war, to the 73 who were wounded in battle, and to the 271 who died from the diseases and exposure of camp life (an array of figures greater than can be presented by any other staff corps), as a proof that they were always to be found where duty called. Without any disposition to make an invidious comparison between the Medical Department and other staff corps, it is believed (say these gentlemen) that at least as high a grade of intellect, as finished an education, as eminent scientific attainments are required to make an accomplished medical officer as obtains in any other branch of the service. In the case of the vast majority of other staff officers, this education is obtained at the expense of the Government, which not only furnishes the future adjutant-general or engineer with all the advantages which a scientific school can afford, but actually pays him a handsome salary for four years before he is sufficiently accomplished to render any service therefor. Not so the medical officer. He must obtain his education at his own expense, usually spending years in college, in medical schools, and hospitals before he can hope to be sufficiently qualified to pass the ordeal of an examining board. As the letter very sensibly suggests, the Government cannot expect to obtain the best class of men in any branch of its service unless it offers them equal inducements to those found in civil life. So long as medical men of ability and good scientific acquirements have before them those high prizes which are found in private practice, just so long will they refuse to continue in the army, when no prospect is held out to them of ever rising above a certain grade, or of obtaining beyond a certain amount of income. The inducements to engaging in private practice are the prospect of increased income and reputation with advancing years. In the army these are represented by *rank*, not only because increased rank carries with it an increase of emolument, but also because to the army officer rank is well and properly understood to enhance the dignity of the person holding it, as well as the respect in which he is held by his compeers and subordinates. It is claimed by these medical officers that the principles here urged have already been recognised in recent legislation for the Medical Department of the Navy, by which fifteen medical officers were given the relative rank of captain, and fifteen that of commander, corresponding to the rank in the army of colonel and lieutenant-colonel respectively. It is held that no good reason exists why similar promotion should be withheld from the army surgeons, when its necessity has been acknowledged by law for their brethren in the navy. The British War Office likewise recognised the importance of increased rank for its medical officers in the new 'Army Medical Warrant,' and acknowledged the force of the positions taken in this paper, by giving such rank in recognition of long and faithful service.

## REPORTS OF SOCIETIES.

## THE PATHOLOGICAL SOCIETY.

TUESDAY, OCTOBER 20.

SIR WILLIAM JENNER, BART., M.D., President, in the Chair.

### FIBRO-CYSTIC TUMOUR OF THE NECK.

MR. CROFT exhibited, for Mr. West, of Birmingham, a Fibro-Cystic Tumour of the Neck, removed by operation from a strong, healthy man of forty-three. At the age of twelve years a tumour of glandular nature had been removed from the neighbourhood of the ear. Four years before the present operation a swelling again formed in the neck, between the lobe of the ear and the hyoid bone; it possessed innocent characters, being slow in growth, painless, and unconnected with the skin or larynx. In April, 1872, this tumour was punctured, and several ounces of yellow, turbid serum evacuated. A tent was thereafter kept in the wound. In spite of this, however, the opening closed, the tumour recommenced growing, and removal was necessary. The tumour was as large as an egg, and its contents much as described. Its wall consisted of connective tissue lined with epithelium. It was not connected with the parotid gland. Mr. Croft found adenoid tissue in the wall, and Dr. Payne discovered an alveolar arrangement with cells, some of which were colloid, while others passed into an infiltration of the neighbouring adipose tissue. For these reasons Dr. Payne would regard the tumour as cancerous. Mr. Croft believed that it belonged to the class of "cysts of independent growth." (The specimen was referred to the Morbid Growths Committee.)

### ANEURISM OF THE THORACIC AORTA.

Dr. PEACOCK exhibited a specimen of Aneurism of the Thoracic Aorta. The case was interesting, chiefly because it had been carefully watched *intra vitam*. The subject of the disease, a man of thirty-four, was admitted into St. Thomas's Hospital with pains in the chest and back and a very weak double bruit. In a few days a distinct murmur was heard in systole and in diastole, and these more powerful over the upper part of the mammary region than over the heart. Slight dulness, weak pulsation, and thereafter very moderate swelling, were successively developed. There was no dysphagia, no dysphonia, and but little dyspnœa, but there was considerable pain. At the end of July, when the patient felt so well as to propose leaving the hospital, he suddenly died from hæmorrhage by the mouth. Post-mortem, a sacculated aneurism was found involving the first portion of the arch of the aorta, and communicating with the left bronchus by a very large opening, which was, however, almost closed by a clot.

### ADDISON'S DISEASE.

Dr. PEACOCK also exhibited the Supra-renal Capsules from a case of Addison's Disease. A railway porter, who had been ailing for four months with dyspeptic symptoms, especially vomiting, torpidity, and prostration, was admitted into St. Thomas's Hospital, complaining of feverishness and sickness. His complexion was dark; the mucous membranes were not remarkable. Dr. Turner diagnosed Addison's disease, and in three or four days the patient died in a faint. On examination, it was found that both supra-renal capsules were entirely destroyed, and filled with chalky masses.

The PRESIDENT said that at the end of last session he had been disappointed in his intention to bring forward a well-marked specimen of skin-bronzing with perfectly healthy supra-renal capsules, but with the nerves of the solar plexus involved in a mass of diseased glands, which must have interfered with their function.

Dr. HEADLAM GREENHOW remarked that this case of Sir William Jenner's was one of extreme importance, and ought to be recorded.

The PRESIDENT promised to publish it.

### CANCER OF THE OMENTUM.

Dr. CRISP showed a specimen of Cancer of the Omentum. The subject was a sea-captain, aged fifty-nine, who had suffered from symptoms of cancer of the pylorus for more than six months. The omentum was found drawn up towards the greater curvature of the stomach as an irregular cancerous mass. No other organ was found affected. Dr. Crisp stated various reasons which he holds for considering cancer not a disease of old age, as some pathologists would appear to believe.

### DIFFUSED SUPPURATIVE INFLAMMATION OF THE STOMACH.

Dr. HILTON FAGGE showed microscopic specimens from a case of Diffused Suppurative Inflammation of the Stomach. A merchant, who had made a fatiguing journey on the previous day, during which he seems to have eaten moderately, was one morning suddenly taken ill with severe paroxysmal pain in the abdomen, passing from the epigastrium through to the back, and accompanied with severe retching. The patient was sallow, and the disease was diagnosed biliary colic. The administration of opium and warm baths was followed by great relief, and in the afternoon the patient was able to walk to the water-closet and back. But at half-past eight o'clock he was found dead. The relatives were disposed to attribute the patient's death to an overdose of the anodyne. The body was examined forty hours post mortem, when decomposition was considerably advanced. The lungs were healthy. The heart was very soft; the musculature brown; and the lining of the cavities stained. Microscopically almost nothing remained to be seen of muscular tissue beyond granular matter. The liver was soft; the biliary apparatus normal. The kidneys were not diseased. The stomach was found empty; its walls were greatly thickened, so that they measured one inch in one situation. At the pylorus this thickening suddenly ceased; at the other extremity it did so more gradually. The whole wall was very soft,—mucoid in consistence, and of a greenish hue. To the naked eye it appeared to be invaded by some new growth. On careful microscopical examination it was found that all the coats were infiltrated with pus-cells. There was no peritonitis; and no ulceration internally. Some of the gastric follicles were found to be normal. Dr. Fagge remarked that the case was an extremely rare one, nothing similar being recorded in the *Transactions* of the Society. Bamberger mentions a single case of phlegmon of the stomach in a young soldier, where the gastric walls were infiltrated with pus. In reply to certain questions put by the President, Dr. Fagge said that the temperature of the patient was not recorded, as the case was not at first considered to be a serious one; neither was the condition of the pulse known. No pus was actually seen post-mortem, but the infiltration of pus-like cells pointed to its inflammatory nature. (The specimen was referred to the Committee on Morbid Growths.)

### RENAL CALCULUS AND HYDATIDS OF THE GALL-BLADDER.

Dr. CAYLEY exhibited, for Mr. Whately, of Berkhampstead, a Renal Calculus which had passed through a fistula in the loins of a man of thirty-three, who worked at a sulphide of arsenic manufactory. It was a question how far the composition of the calculus might not be connected with the arsenic. (Referred to the Chemical Committee.)

Dr. CAYLEY also showed, for Mr. Whately, a specimen of Hydatids of the Gall-bladder. A man of thirty-six had twelve attacks, in as many months, of hepatic colic attended with jaundice. At the last illness hydatids were evacuated per rectum, and the patient had remained well since. They were supposed to have come from the gall-bladder.

Dr. PEACOCK inquired why the hydatids were supposed to come from the gall-bladder; to which

Dr. CAYLEY replied by repeating the history of the case.

### HYPERTROPHIED MERRYTHOUGHTS OF PARTRIDGES.

Mr. NUNN showed specimens of Hypertrophied Merrythoughts of French Partridges. The furculæ were thickened and shortened, but the precise nature of the disease was uncertain. The birds in which such bones are found rise and fly slowly.

### CHRONIC RHEUMATIC ARTHRITIS.

Mr. NUNN also exhibited a specimen of Enormous Chronic Enlargement of the Bones of the Knee. The patient was a man of seventy-five, who died of uræmia and renal abscess, and this was the only joint diseased. The condition was commonly known as rheumatic gout, and the present specimen was perhaps the largest example of eburnation and exostosis ever exhibited.

Mr. WILLIAM ADAMS said that the disease was more often observed in the hip-joint. He had himself shown many years ago that the morbid process in these cases is not an expansion of the bone, but a deposit on the surface. Mr. Adams then referred at length to the pathology of the disease.

### DIFFUSED ANEURISM OF THE ABDOMINAL AORTA.

Dr. COUPLAND exhibited a specimen of Diffused Aneurism of the Abdominal Aorta, which was taken from a man of thirty-two. The patient, who had syphilis fourteen years before, was admitted into the Middlesex Hospital complaining

of pain in loins, and occasionally down the thighs, from which he had suffered for upwards of two years. There was no evidence of aneurism on admission, and the case was regarded as one of lumbago. A fortnight after his admission he became suddenly collapsed with great increase of pain, and the appearance of a tumour in the right flank. He rallied from this attack, but died five days after. An exploratory puncture had only yielded a few drops of blood. Post-mortem there was found a large sacculated aneurism springing from the abdominal aorta immediately below the diaphragm, and reaching to the renal arteries. The aneurism had become diffused in its lower part, displacing the kidney forwards; while the clot, which reached to the brim of the pelvis, enveloped the left ureter, the lower portion of the aorta and the vena cava, and the right common iliac vessels. There was extreme erosion of the bodies of the twelfth dorsal and first lumbar vertebræ, those of the vertebræ above and below them being less eroded.

The PRESIDENT asked whether the aorta was atheromatous throughout.

Dr. COUPLAND replied that it was to a certain extent.

Dr. CRISP remarked that the atheroma in cases of aneurism is probably developed subsequently to the sac.

### DISEASE OF THE PULMONARY VALVES.

Dr. COUPLAND also showed a specimen of Disease of the Pulmonary Valves with dilatation of the pulmonary artery, associated with patent foramen ovale. This was taken from the body of a naval pensioner of seventy-five, who died of bronchitis and emphysema. During life a double murmur had been heard at the base of the heart to the left of the sternum, and no second sound was audible at the apex. Post-mortem the kidneys were found to be granular, the arteries atheromatous. The heart weighed nearly twenty ounces, and both sides were dilated and hypertrophied. The foramen ovale was patent, being about the size of a threepenny piece, and its margins were slightly thickened, while in the left auricle they were further strengthened by a tendinous cord which crossed the aperture. The pulmonary valves were markedly incompetent, the free margins being greatly thickened, rounded, and fringed by minute vegetations. The orifice of the vessel measured three inches and one-eighth in circumference, while two inches above the valves the artery was dilated to a circumference of six inches and one-eighth, and its coats much thinned. There was also general dilatation of the branches of the pulmonary artery within the lung, and in places the lining membrane was atheromatous. The lungs were extremely emphysematous. Dr. Coupland dismissed the idea that the pulmonary valve-disorder was due either to rheumatism or to congenital malformation, on account of the advanced age of the patient. Neither was there any history of rheumatism, and the mitral and aortic valves were unaffected. Dr. Coupland therefore referred the disease exclusively to the great tension in the pulmonic circulation produced by the emphysema, to which the dilated condition of the pulmonary artery and its branches was also due. The patency of the foramen ovale had probably had no share in the production of the disease.

The PRESIDENT considered that there could have been no passage of the blood through the foramen ovale, for the opening was very oblique. There was often thickening of the margin of the fossa without incompetence.

### ELEPHANTIASIS ARABUM.

Mr. BUTLIN showed a specimen of Elephantiasis Arabum of the Leg of a boy from the practice of Dr. Newman. There was no disease at birth, but at the age of three months a nodule appeared at the internal malleolus, from which point the growth extended until the leg became a great inconvenience. At removal by amputation the limb was found to weigh twenty pounds; it was three inches longer than its fellow. The parents of the patient were both English, and he had never been abroad. There was no loss of sensation in the diseased limb, and no interference with mobility beyond that due to mere bulk. The posterior tibial and popliteal nerves were in an interesting condition, their connective tissue being greatly increased, while the axes cylinders and Schwannian substance were normal.

### PRIMARY TUBERCLE OF THE LYMPHATIC GLAND.

Dr. PYE-SMITH showed specimens of Disease of the Lymphatic Glands and other parts, including the Lungs, Sternum, and Stomach with the neighbouring glands. These were taken from the body of a woman of forty-five, who began to suffer two years before from cough and rapid emaciation; at the same time a swelling was found over the sternum and an abscess in the neck. She was treated on that occasion for fourteen days—probably for tertiary syphilis. Shortly before her death the woman again came under observation, with moderate enlargement of the glands in the groin, axilla, and neck; a swelling over the sternum, which was evidently an abscess; a dark complexion, anæmia, and emaciation. There was brief improvement, and death occurred rather suddenly from dyspnœa, with symptoms of pleural effusion. The diagnosis was difficult. The disease might prove to be chronic pyæmia, or some new growth—probably not syphilis. Post-mortem, the mass outside the sternum was found to be small. A thick mass of dense, cheesy deposit lay behind the bone. All the thoracic glands were cheesy and continuous. The abdominal glands were in a similar condition, and there were many nodules in the lesser omentum. The pleura and pericardium also presented nodules of various size. Microscopically the larger glands showed only caseous *débris* and thickening of the trabeculæ. The bronchial glands showed cheesy infiltration in spots. The small nodules on the pleura presented small granular cells in faint fibrillæ. Dr. Pye-Smith believed that the disease must be called tubercle; and, if so, primary tubercle of the glands, among which it spread, while it had spared the lungs, the Peyerian follicles, and the peritoneum, and was accompanied by no grey granulations whatever.

The PRESIDENT inquired whether the fluid in the pleura was inflammatory; to which Dr. Pye-Smith replied in the affirmative.

Dr. DOUGLAS POWELL said that the left lung appeared to him to be more than collapsed, as if full of connective tissue; and the disease seemed much more like lymphoma than like tubercle. Did it not involve the sternum?

Dr. PYE-SMITH said that the sternum was thinned only—not perforated. He replied to Dr. Powell that there was thickening around the bronchi, but that the condition of the lung was chiefly carnification. The spleen was "sago," and there was some growth in the kidneys.

Dr. HILTON FAGGE remarked that this case resembled two described by himself in the last volume of the *Transactions*. As a series, these cases seemed to him to be very important. (Referred to the Committee on Morbid Growths.)

## CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 23.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

### BRAIN DISEASE SIMULATED BY OVERSTRAIN OF THE CONVERGENCE MUSCLES OF THE EYES.

Mr. BRUDENELL CARTER described the case. The patient, a young gentleman, was interrupted, whilst reading for honours at Oxford, by double vision and vertigo, followed, if the effort to read were continued or soon resumed, by sickness, palpitation, and intense headache. These symptoms were attributed to some obscure affection of the brain, and the patient was directed to leave the university without taking a degree. He remained for some time at home, under medical treatment, without improvement, and, on coming to London for further advice, was told to take a voyage to Australia and back, in order to rest his brain. He did so, but returned no better, and was then advised not to enter into business, and to abandon his engagement to marry. Mr. Carter was consulted about the case, in order that he might say whether the ophthalmoscope revealed anything abnormal in the cerebral circulation. He found the patient to be very short-sighted, and that he had never worn spectacles. In reading, he held his book seven inches from his eyes; and Mr. Carter ascribed the symptoms to inability to maintain this degree of convergence for many hours. He ordered spectacles to be worn constantly, and reading to be practised at eighteen inches distance. In three weeks the patient returned cured, with his wedding-day fixed and his arrangements for entering into business completed. In his concluding remarks Mr. Carter said that the case, though exceptional, was exceptional only in degree, and that many patients suffered from headache and other symptoms due only to impaired harmony of the ocular muscles, or to inordinate exertion of some of them. He

urged that, in every case of obscure head-affection, the state of refraction, of vision, and of the muscles should be carefully investigated; at all events, before a patient was sent to Australia, or advised to abandon his position and duties in life.

Dr. Hughlings-Jackson considered Mr. Carter's paper to be as interesting to physicians as to ophthalmic surgeons. He (Dr. Jackson) referred to a case in which hypermetropia, which was an indirect cause of nervous troubles, had been by several eminent ophthalmic surgeons and by himself misinterpreted. It disappeared when appropriate glasses were worn. Since then he has always considered the state of the refraction of the eyes as well as the state of the fundus in patients who have what may be called minor cerebral symptoms. He referred to another case he had seen with Mr. Carter, in which severe headache seemed to be fairly attributable to hypermetropia and astigmatism. He considered that cases of ocular palsy were, for the study of the nature of vertigo, the simplest of all cases. It was clear from these cases that vertigo was a motor symptom. It was not due to double vision, as commonly supposed, as it occurred on use of the paralysed eyeball only—that is to say, under conditions in which double vision was impossible. Yet, as a matter of fact, vertigo, in physicians' practice at least, was not commonly met with in cases of ocular palsy. This was owing to the fact that, in the case of the sixth nerve, the patient, so to speak, dodged the paralysis by holding his head stiffly inclined; and in the case of the third nerve, to the fact that the paralysed eyeball was covered by the drooping lid. In the latter case the patient did not reel nor feel giddy, but if he closed the good eye, and if the paralysed lid were upheld, he would, when walking, feel giddy, would reel, and might feel sick. The vertigo was due to "erroneous projection." There was a duplex condition; there was over-estimation of the range of a movement of the eyeball intended, but not really performed, and action of movements of locomotion in accordance with that false estimate, and thus over-action of them.

Dr. Poore said the case reminded him of some forms of chronic fatigue of the muscles, as in "writer's cramp," where the strain falls on certain muscles only. These after a time refuse their office, with pain, headache, etc. Mr. Carter's patient might be said to suffer from "reader's cramp."

Dr. Rasch referred to the case of a patient who suffered from vertigo and sickness, apparently from a plug of wax in the ear.

Mr. Carter, in reply, said he remembered the case referred to by Dr. Jackson, and as the patient promised to return if he did not improve, but had not again made his appearance, he concluded that he was well.

### Cancer of Stomach and Lung.

Notes of this case were read by Dr. Southey. Miss B., when first seen by him in July, 1874, had been suffering for two years with indigestion, pain after all solid food, and very frequent vomiting. She had lived principally upon sop and biscuits, tea, and beer. For the last few months the vomiting had been very constant, and she was reduced to a state of great emaciation. For six weeks she had had a cough, attended by occasional scanty expectoration, and, two days before being seen by Dr. Southey, she had thrown up a little clear blood for the first time, after a long fit of coughing. Skin soft and perspiring; feet cold; ankles œdematous; temperature 100°; pulse feeble, 108; respirations 38 per minute; tongue moist; abdomen empty; bowels constipated; urine scanty and high coloured; catamenia scanty. The left thorax anteriorly was flatter than the right; its movement less. It was nearly completely dull to percussion anteriorly and laterally. Posteriorly, the left suprascapular region was resonant. The middle and lower parts of the left lung were dull. Movement and resonance throughout the right lung were good. Respiratory sounds over right lung loud and compensative; breathing defective all over left lung; creaking and crepitant râles audible anteriorly; friction-sound laterally; gurgling and creaking at the root of the lung posteriorly. The vocal vibrations were little different upon the two sides, but her voice was a feeble one. There was no bronchial breathing or bronchophony anywhere. The heart's apex-beat in normal situation; rhythm regular; action feeble; sounds clear; præcordial limits not assignable by reason of general thoracic dulness on left side; no evidence of pleuritic effusion; heart not pushed over to right side. On the right side of the sternum, at the junction of the cartilage of the second right rib, was a little superficial tumour, feeling firm, but not hard, and being closely tied down to the perichondrium; it was not tender, and the resonance of the right lung could be made out by percussing over it. The glands in the left axilla were a little enlarged, but no individual gland was larger than a horse-bean. The cervical glands on the left side, and some in the left supraclavicular fossa, were also enlarged. The clinical facts admitted of three interpretations: 1. Chronic phthisis, with mischief nearly confined to one lung; secondary strumous abscess-formation over sternum; and chronic gastritis, so often associated with phthisis from first to last. 2. Chronic ulcer of stomach; adhesion to and perforation through diaphragm; abscess and circumscribed empyema at base of left lung, and extension of disease through it. 3. Cancer, primary and secondary—primary of pylorus; secondary of thoracic glands, root and substance of left lung. The recent appearance of the sternal tumour on the opposite side to the affected lung, the enlargement and induration of the lymphatic glands upon the same side as the affected lung, inclined Dr. Southey to the diagnosis of cancer which he gave. A few weeks later, the post-mortem examination entirely confirmed his surmise. The small superficial sternal tumour consisted of encephaloid cancer. The left lung, firmly adherent to the chest-wall, was occupied in its middle and lower portion by extensive cancerous infiltration; the thoracic and posterior mediastinal glands were similarly affected. The right lung was quite healthy. Heart small and flabby. Stomach small, contracted; pyloric orifice tightly constricted, but not quite closed by scirrhous growth. Both supra-renal capsules, the left one being especially enlarged, were occupied by soft cancerous disease.

Dr. S. Thompson said there was no reference to the colour of the skin, though the supra-renals were diseased.

Dr. Greenhow said cancer of the supra-renal capsules gave of necessity rise to no vomiting and no sign of Addison's disease. This was quite a special malady of the capsules.

Dr. Cholmeley asked if the pancreas was affected, and what was the route of the malady to the left lung.

The President said that the appearance of the small tumour was an interesting factor in the case. Some years ago he saw a case of paraplegia with great pain in the spine. He carefully examined the patient for any tumour, and found a cancer in the breast. This gave the key to the disorder. He could not say how long a cancer of the pylorus might last, but he was quite sure cancer of the rectum might exist many years, and be very long overlooked.

Dr. Southey, in reply, said there was no discoloration of the skin. As to the route adopted, he thought that was through the mediastinal glands.

### Thrombosis caused by a Needle.

Dr. H. Thompson read notes of the case. The patient, a young woman of hysterical temperament, was admitted with febrile symptoms of two days' duration. She complained of pain in the back, languor, and loss of appetite. There were also pain and tenderness in the right iliac region and across the hypogastrium; and, indeed, the whole surface of the trunk appeared to be unnaturally sensitive. There was a systolic murmur at the apex, and the heart's action was tumultuous, but there was no history of rheumatic fever. The day after admission she became wildly delirious, with a pulse of 160, and a temperature of 105° Fahr., followed in the course of two hours by profuse sweating. On the following day she had a rigor, with a temperature of 107·4° Fahr., again followed by profuse sweating and a fall in the thermometer. This rigor was followed by others, so that during the fifty-three days she remained under observation there were rigors on nineteen, mere chilliness on four, both, as a rule, being followed by sweating. Again, vomiting or faintness either concurred with the paroxysm of shivering, or played the part of its representative. Whatever the mode of manifestation, the temperature at the time of the outbreak almost always culminated in a peak. Twelve days after admission, phlegmasia dolens, with conspicuous enlargement of the superficial veins, appeared in the left lower extremity, and forty-two days afterwards in the right, and there remained until the death of the patient. About the time of the first appearance of the phlegmasia, she presented symptoms closely resembling those of pericarditis; and throughout the case she complained of aching pain in various regions of the spine. Finally, after a protracted period of delirium, accompanied by profuse diarrhœa, she sank exhausted, and died on the fifty-third day after admission. The treatment consisted, in the

main, in the exhibition of quinine in large doses and in the free administration of stimulants. The blood was twice examined during life, and the white corpuscles were found to be inordinately increased. At the post-mortem examination, there were found to be numerous extravasations beneath the lining membrane of the third ventricle of the brain, but this organ was not otherwise diseased. In the chest, there were subpleural ecchymoses over both lungs, and the organs were œdematous. There were one or two old white patches on the surface of the heart. The mitral valve was thickened, and presented a chain of small vegetations along its auricular margins. In the abdomen, the inferior vena cava, from its commencement to the junction of the renal veins, was filled with a partially decolorised clot, adherent to the wall of the vessel, and channeled through its centre. At its commencement, just above the junction of the iliacs, the vessel was filled with dirty brown matter; and in the midst of this a needle was noticed resting in an oblique direction, with its eye pointing downwards and slightly to the left, in close relation to an opening in the back of the vein, about an eighth of an inch in diameter. Immediately above this, another opening existed, measuring a quarter of an inch in diameter. Through these apertures the body of the fourth vertebra could be felt denuded of its periosteum. The left common iliac vein was filled with a brownish-red clot of moderately firm consistence and slightly adherent. The left external iliac and left femoral veins were as small as crow-quills, and were completely occluded by a whitish fibrous plug, which could not be detached from the wall of the vessel. The right common iliac, right external iliae, and right femoral veins were obstructed and narrowed by a tough, fibrous-looking layer, firmly attached to the lining membrane. Immediately to the left of the third lumbar vertebra was an abscess, in which a second needle was found, lying obliquely across the body of the vertebra, the surface of which, however, was not eroded. The liver was engorged with blood. The spleen contained several infarctions, one about the size of a marble, softened in its centre. The intestines were much injected; the mucous membrane was the seat of extensive catarrh. The kidneys were normal.

Dr. CHURCH, referring to the condition of the blood, asked if the numerous white corpuscles were not in reality pus corpuscles from breaking down of the clots.

Dr. GREENHOW explained that the paper was really in the rough, having been read prematurely.

Mr. G. LAWSON spoke as to the mode of the needles reaching the affected spot. He referred to a case under Mr. De Morgan, where a pin had been swallowed, and gave rise to lumbar abscess and disease of bone.

# MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 22:—

Bower, Reginald, Knowle, Warwickshire.
James, Walter Culver, 129, Kennington-park-road.
Webb, Charles Louis, The Welches, Bentley, near Farnham.

The following gentleman also on the same day passed his primary professional examination:—

Hughes, Alfred, Twining.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BROWN, FERGUS MALCOLM, L.R.C.P. Edin., L.F.P.S. Glasg.—Medical Officer and Public Vaccinator for the Wansford District of the Stamford Union.

BURTON, JAMES EDWARD, L.R.C.P. Edin., M.R.C.S. Edin.—Assistant Medical Officer of the Surrey Asylum, Brookmoor, *vice* E. Swain, M.R.C.S. Eng., L.S.A., resigned.

CRAWFORD, WILLIAM, M.A., M.B., C.M.—Assistant House-Surgeon to the Carlisle Dispensary.

DAVIS, ARTHUR PERCY, M.R.C.S. Eng.—Certifying Surgeon to the Factories in the St. Blazy District of St. Austell Union, Cornwall.

DEHENZY, THOS., L.K.Q.C.P.I., L.R.C.S.I., L.M.K.Q.C.P.I.—Medical Officer, etc., for the Arthurstown Sub-district of the Fethard Dispensary District of New Ross Union, co. Kildare, *vice* Dr. O'Farrell, resigned.

GRAY, CLEMENT FREDERICK, M.R.C.S.E., L.S.A.—Medical Officer of the Workhouse of Newmarket Union.

HIND, ALBERT, M.R.C.S. Edin., L.S.A.—Medical Officer for the Barton District of Luton Union.

HUBBARD, THOS. COATH, L.R.C.P., L.R.C.S., L.M. Edin.—Medical Officer for the Borough District of Walsall Union, Staffordshire.

JOHNSTON, HENRY MATURIN, M.D., L.R.C.S.I., L.M., L.A.H.—Medical Officer, etc., to the Stranorlar Dispensary District of the Stranorlar Union, co. Donegal.

KEMP, J. R.—Resident Medical Officer of Atkinson Morley's Hospital.

LAKING, F. H., M.D., M.R.C.P., L.S.A.—Visiting Apothecary to St. George's Hospital.

MACLACHLAN, JAMES, M.D.—Medical Officer for the Workhouse to Walsall Union, Staffordshire.

MASON, RICHARD, M.R.C.S. Eng., L.S.A.—Resident Surgeon to the Ramsgate and St. Lawrence Royal Dispensary, and House-Surgeon to the Seamen's Infirmary, *vice* Thos. Hyde Hills, L.R.C.P.E., M.R.C.S. Eng., resigned.

NEWTON, HENRY WILLIAM, L.F.P.S. Glasg., L.S.A., Medical Officer of No. 2 District of the Newcastle-on-Tyne Union.—Medical Officer of No. 3 District of the same Union.

ROSS, D. McC., L.K.Q.C.P., L.R.C.S.I.—Medical Superintendent, Officer of Health, or Consulting Sanitary Officer for the Union of Monaghan.

SWAIN, E., M.R.C.S. Eng., L.S.A.—Medical Superintendent of the Three Counties Pauper Lunatic Asylum, Arlesey.

TAIT, GEORGE WALTER, M.R.C.S., L.S.A.—Medical Officer for the Knowle District of Solihull Union, Warwickshire.

VENN, ALBERT, M.B., C.M. Aber.—Assistant-Physician to the Metropolitan Free Hospital, Devonshire-square, E.

WARNER, FRANCIS, M.D. Loud., F.R.C.S. Eng., L.S.A.—Medical Officer for the Yardley district of Solihull Union, Warwickshire.

## NAVAL APPOINTMENT.

ADMIRALTY.—Thomas Kipling, Staff-Surgeon, second class, to the *Egeria*.

## BIRTHS.

KIDD.—On October 23, at Swakley-terrace, Shepherd's Bush, the widow of the late Charles Kidd, M.D., of a posthumous son.

MCEWAN.—On October 25, at Southsea, the wife of D. McEwan, M.D., R.N., of a daughter.

## MARRIAGES.

BINNIE—EAMES.—On October 20, at St. John's Church, Notting-hill, William Binnie, Esq., of 53, Lansdowne-road, Notting-hill, to Frances Octavia Isabella, youngest daughter of the late William James Eames, M.D., of Londonderry.

HOWELL—DAVIS.—On October 22, at St. Ishmael's, Milford Haven, Thomas Gwynne Howell, Surgeon-Major Madras Army, to Anna Jane, third daughter of Warren Davis, Esq., The Warren, Pembrokeshire.

PALIN—SMITH.—On October 21, at St. Mary's, Horncastle, W. Dickenson Palin, of Middleton Stoney, Oxford, to Marion, eldest daughter of the late Thomas Smith, M.D., Patrington, Yorkshire.

RITCHIE—ANDERSON.—On October 20, at Altamont, Blairgowrie, Robert Peel Ritchie, M.D. Edin., to Mary, daughter of the late James Anderson, Esq., of Bleaton, Perthshire.

SMITH—NOAD.—On October 22, at Wokingham, Berks, H. Alder Smith, F.R.C.S., of Christ's Hospital, London, to Frances, eldest daughter of G. W. Noad, M.D., and granddaughter of the late Joseph Noad, Surveyor-General of Newfoundland.

TROUPE—TOBIN.—On October 23, at St. George's, Hanover-square, Robert William Troupe, M.B., Surgeon 42nd Highlanders (the Black Watch), to Margaret Anne, only daughter of the late Lieut.-Col. Tobin, 11th Regiment.

## DEATHS.

SCOTT, WALTER, son of the late William Scott, Esq., of Lawcraig, Stirlingshire, Scotland, at Hamilton, Victoria, on August 19, aged 35.

WEST, ELIZABETH, the beloved wife of W. C. West, M.R.C.P., F.R.C.S. Eng., at Yarnton Lodge, Malvern, on October 24, aged 60.

WOOD, ABRAHAM, F.R.C.S. (Hon.), formerly of Rochdale, at Cookham Dean, on October 23, in his 79th year.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BELGRAVE HOSPITAL FOR CHILDREN, 1, CUMBERLAND-STREET, ECCLESTON-SQUARE.—Physician. Candidates must be M.R.C.P. Applications, with testimonials, to the Honorary Secretaries, on or before October 31.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN-ROAD.—Assistant-Surgeon. Candidates must be F. or M.R.C.S. or C.M. of one of the Universities of the United Kingdom. Applications, with testimonials, to the Secretary, on or before November 7.

EAST SUSSEX, HASTINGS, AND ST. LEONARD'S INFIRMARY.—Assistant-Surgeon. Candidates must be F. or M.R.C.S. Applications, with testimonials, to the Secretary, Mr. W. J. Gant, Hastings, on or before November 12.

HUDDERSFIELD INFIRMARY.—House-Surgeon. Candidates must be fully qualified, and unmarried. Applications, with testimonials, to the Secretary, on or before November 23.

NORTH WALES COUNTY LUNATIC ASYLUM.—Medical Superintendent. Candidates must be duly qualified, and possess a knowledge of the Welsh language. Applications, with testimonials, to Mr. J. Robinson, Clerk to the Visitors, on or before November 12.

PARISH OF LAMBETH.—Medical Officer for the Infirmary. Candidates must be qualified according to the Orders of the Local Government Board. Applications, with testimonials, to Mr. W. B. Wilmot, Guardians' Board-room and Offices, Pleasant-place, Brook-street, Kennington-road, S.E., on or before November 9.

ST. GEORGE'S (HANOVER-SQUARE) DISPENSARY, 59, MOUNT-STREET, GROSVENOR-SQUARE.—Resident Medical Officer. Candidates must be M.R.C.S. and L.S.A. Applications, with testimonials, to the Secretary, Mr. G. H. Leah, jun., 73, Park-street, W., on or before October 31.

SEAMEN'S HOSPITAL, GREENWICH.—Visiting Surgeon. Candidates must be F.R.C.S. Eng. Applications, with testimonials, to the Secretary, on or before November 7.

UNIVERSITY COLLEGE, LONDON.—Professor of Comparative Anatomy and Zoology. Applications, with testimonials, to John Robson, Esq., B.A., Secretary to the Council, on or before October 31.

YORK COUNTY HOSPITAL.—House-Surgeon. Candidates must be unmarried. Applications, with testimonials, to the Secretary, 5, New-street, York, on or before October 31.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Coventry Union.*—The Third District is vacant; salary £63 per annum.

*Walsall Union.*—Mr. J. Burton has resigned the Borough District; area 3254; population 21 343; salary £45 per annum. Also the Workhouse; salary £80 per annum.

*Whitehaven Union.*—Mr. J. Morrow has resigned the Lamplugh District; area 20,154; population 9317; salary £45 per annum.

*Worcester Union.*—Mr. T. Bates has resigned the First District; area 1491; population 10,709; salary £65 per annum.

### APPOINTMENTS.

*Bangor and Beaumaris Union.*—Robert E. Owen, M.R.C.S. Eng., L.S.A., to the Anglesey District.

*Beaminster Union.*—John S. Webb, M.R.C.S. Eng., L.S.A., to the Marshwood District.

*Bolton Borough.*—Mr. Edward Sergeant as Analyst.

*Bury St. Edmunds Incorporation.*—Francis W. Clarke, M.R.C.S. Eng., L.S.A., to the Workhouse.

*Huntingdon Union.*—Wm. M. Davies, B.M. and M.C. Edin., L.R.C.P., to the Workhouse.

*Liverpool Parish.*—Wm. Alexander, M.D., M.Ch. Queen's Univ., Ire., to the Second District. Richard Y. V. Packman, M.R.C.S. Eng., L.S.A., to the Fifth District. Wm. Irvine as Assistant Medical Officer at the Workhouse.

*Louth Union.*—Fredk. Hay, M.C. and M.D. Aber., to the Hainton District.

*Morpeth Union.*—Wm. Clarkson, L.F.P.& S. Glasg., L.R.C.P. Edin., to the First District.

*Toxteth-park Township.*—Thos. D. Ransford, M.R.C.S. Eng., L.R.C.P. Lond., as Assistant Medical Officer at the Workhouse.

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AT the Liverpool School of Medicine 101 students have been this year enrolled, including twenty-three first year men.

DR. THOMAS, of Selkirk, and his wife have been thrown from a gig by the horse shying. The former had three ribs broken, and sustained a severe shock, but is progressing favourably; his wife escaped with only a scratch.

DR. DOBIE, of Chester, has been thrown from a gig by the horse bolting and coming in contact with a telegraph post. He was severely bruised and cut, but not seriously injured, although the gig was smashed to pieces.

IN the list of office-bearers of the Royal College of Surgeons, Edinburgh, forwarded to us there was an omission. After the name of the Secretary, there should have been added "Librarian, Archibald Inglis, M.D."

CONTRARY to expectation, the Local Government Board have sanctioned, and the Truro Rural Sanitary Authority have thereupon appointed, four out of the eight district medical officers of the union as medical officers of health, at a remuneration of 40 per cent. per annum upon their salaries as medical officers of the union. A local newspaper, in making the announcement, expresses a very natural fear that such an arrangement will produce discord.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL.—The proposed appointment of a married Resident Medical Officer, whose wife should act as superintendent of nurses, will not be proceeded with.

IN MEMORIAM.—A few of the private and professional friends of the late Dr. Thomas Ballard have determined, in token of their friendship and esteem, to place a simple but fitting memorial of him over his grave. Dr. Barratt, of 8, Cleveland-gardens, Hyde-park, has kindly undertaken to act as treasurer.

THE FORTY-SEVENTH MEETING OF THE GERMAN NATURALISTS AND PHYSICIANS.—This meeting, which was held at Breslau from September 18 to 24, was looked forward to with some apprehension as to its keeping up the fame of its predecessors, owing to the out-of-the-way situation and (comparatively) unimportance of its place of meeting. These forebodings, however, have been quite falsified, as the meeting was fully attended and was full of social and scientific interest. There were altogether 1492 members present, ninety-six of whom did not belong to the German Empire; of these, one-half were Austrians, and forty-seven guests came from various parts of Europe and America, three of these only being English, and twenty-one Russians. The Association met in Breslau forty-one years ago, and its great expansion since naturally formed a theme of congratulation.

THE LATE DR. EDMOND WATERS.—A monument has just been erected at the back of the church in the Coventry Cemetery to the memory of the above-named gentleman. The base is of marble and granite, and surmounted by a cross. The following is the inscription:—"In affectionate memory of Edmond Waters, M.D., for thirty-one years Surgeon to the Coventry Dispensary, who was suddenly taken away from his work to his rest by a fall from his horse, July 15, 1873. His patients and friends have erected this cross upon his grave. 'Looking for the mercy of our Lord Jesus Christ unto eternal life.'"

ABORTIVE TREATMENT OF SMALL-POX.—Dr. Guipon, in a communication addressed to the Académie de Médecine, states, on the strength of trials made in thirty-one cases of epidemic small-pox, that the perchloride of iron exerts a great influence over the disease, lessening its duration and intensity, rendering the development of the pustules less considerable, allaying or suppressing secondary fever, and promoting a rapid convalescence. The quantities given daily varied according to age—from a minimum of twelve drops to a maximum of forty drops; and the total quantities given during the duration of the disease varied between 58 and 556 drops.—*Bulletin de Thérapeutique*, September 15.

THE THERAPEUTIC VALUE OF THE COLORADO BEETLE.—An order just received by a chemical manufacturing firm of Indianapolis, Indiana, for 1000 pounds of potato bugs, may be classed as one of the curiosities of commerce. It has been discovered that these insects possess qualities which make them a good substitute for the Spanish fly, and there is a prospect that from being regarded as an unmitigated pest they may become a source of actual profit.—*The New York Druggist*, September 15.

UNIVERSITY OF DUBLIN.—TRINITY COLLEGE SCHOOL OF PHYSIC.—The following alterations have just been made. At a meeting of the Provost and Senior Fellows of Trinity College, held on Saturday, October 17, 1874, it was resolved—1. "That the Senior Lecturer, in conjunction with the Medical Registrar, be directed to recommend examiners to assist the professors in the Medical School at the examinations in botany, physics, chemistry, and materia medica." 2. "That the Medical Registrar be directed to give every facility to the visitors of the General Medical Council for the inspection of examination papers and of the answers thereto, but not to resign the custody of these papers." 3. "That a three months' course of practical instruction in animal histology be added to the curriculum for the degree of M.B., under the superintendence of the King's Professor of the Institutes of Medicine; and that the Bursar of Trinity College be authorised to expend a sum not exceeding £110 in the purchase of instruments for that purpose."

DR. WEIR MITCHELL ON THE TREATMENT OF LOCOMOTOR ATAXIA.—A correspondent of the *Boston Medical Journal* (August 27), refers to Dr. Mitchell's paper in the *American Journal of Medical Science* (July, 1873), in which he relates six cases of recovery or great improvement ensuing on enforced absolute rest in consequence of the occurrence of fracture. "It naturally occurs," says Dr. Mitchell, "to ask why so many ataxics have chanced to break their limbs; and as to this I should answer, first, that no people are so awkward or fall so much; and next, that in some of the cases it seemed to me that the habitual abruptness of the muscular acts had a share in the calamity; and that I have suspected, what has not yet been proved, that the bones may suffer some impairment of their nutrition, and hence of their health. But this is as yet purely speculative, and what I want to set forward prominently is, that I have seen rest cure the neuralgia of posterior spinal sclerosis, and apparently, in some cases, arrest the disease." Dr. Mitchell's latest views on the subject are thus stated:—"No one need attempt the cure of old confirmed ataxics. Catch them in the neuralgic stage, or at the onset of the attack, when eye and vesical troubles exist, and then treat them. For all, save old ataxics, I order rest (but that means *movelessness*), vegetable and milk diet, hypodermic injections of corrosive sublimate, nitrate of silver internally and boldly, watching the gums for the blue line which precedes skin-tinting, and which is not permanent. I have used all forms of galvanism, and now employ it in the neuralgia of ataxia, but rarely in any other stage. I never *cure* cases. Does anyone? Patients with ataxic symptoms get well; those having posterior sclerosis of the cord do not. The mere rarity of cures is proof that ataxia has not existed where recovery has been claimed."

ASSASSINATION OF A MEDICAL MAN.—Dr. Guichard, of Troyes, was required some time since to draw up a report concerning a rape, and, in consequence of the conclusions he came to, the defendant, one Lebœuf, a hatter, was condemned. This ruffian vowed mortal vengance upon Dr. Guichard and his co-reporter, Dr. Carteron. Having gained admission to Dr. Guichard, who was in his study, having his infant a few months old on his knee, he fired two barrels of a revolver at him, one of the balls penetrating the forehead and the other passing near the heart. The victim expired twenty minutes after. The assassin was arrested, and it will be difficult, we should suppose, even for a French jury to declare that there are "attenuating circumstances" in such a crime as this.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*A. S. A.*—We question much if you could do so. Apply by letter to the Secretary of the Society.

*M.D. Oxon., Banbury.*—John of Gaddesden, also frequently called Johannes Anglicus, flourished about 1320. Anthony à Wood states he was a doctor of physic, and of Merton College, Oxford; Chaucer alludes to him in his "Canterbury Tales," in his description of the "Doctor of Physick," when in speaking of him he says—

"Averois Damascyn and Constantyn,
Bernard, and *Gaddesden*, and Gilbertyn."

*Dr. Denman.*—In vol. xvi., p. 320 of the *Medical Gazette* you will find Coleridge's opinion—viz., "I think there are only two things wanting to justify a surgeon in performing the Cæsarean operation—first, that he should possess infallible knowledge of his art; and secondly, that he should be infallibly certain that he is infallible."

*Psychologist, Dublin.*—Some years ago M. Ferrus exhibited a tænia to the Académie de Médecine, which he had purged from a maniac. Immediately on its expulsion the insanity disappeared. Several members recited instances in which the insanity of hysterical persons had been cured by the evacuation of the tænia and other intestinal worms. The *London Medical and Surgical Journal*, vol. vii., p. 22.

*An Old Subscriber.*—We cannot find the date of the trial of the notorious quack for manslaughter at the Old Bailey. The celebrated Coleridge said of him, "There unquestionably ought to be a declaratory act withdrawing expressly from the St. John Longs and other quacks the protection which the law is inclined to throw around the mistakes or miscarriages of the regularly educated physician."

*An Afflicted Sanitarian.*—As to whether perfumes are of use in decomposing stinks or not, it is worth recording that when the late Mr. F. Carpenter Skey, F.R.S., was President of the College of Surgeons, he introduced the use of Rimmel's vaporiser during the summer anatomical examinations, thus neutralising, or certainly disguising, the horrid smell arising from the dissected subjects. Mr. J. H. Green thought highly of the ingenious invention; but with the present Court of Examiners the vaporisers have gone out of fashion.

*A Metropolitan Demonstrator.*—The College of Surgeons formerly claimed and obtained the bodies of all criminals executed at the Old Bailey for murder. Earl Ferrer's body was conveyed in his own coach-and-six to Surgeons' Hall to be anatomised, pursuant to the sentence passed on him. The last body claimed by the College was that of Smithers, of Oxford-street, who was executed about thirty years ago for setting his house on fire, when two ladies lodging with him were burnt to death.

"*Notes from the Mews.*"—Under this title our contemporary, *Land and Water*, is publishing some interesting disclosures by "Half-pay," which will be valuable to those of our readers keeping horses. Under the *nom de plume* of "Bulbous Roots, M.D.," a curious illustrative case is given in the last number as occurring in the stables of a Dr. ——— in a suburb of this metropolis.

*C. H., Torquay.*—The first number of the first French newspaper was published in 1632 by Theoprastus Renandot, a distinguished physician under the patronage of Louis XIV.

*G., Nottingham.*— Is this, then, your wonder?
Nay, then, you shall understand more of my skill."
—*Ben Jonson.*

*Mr. Angell*, of the Hants County Laboratory, writes us with regard to the process of analysing butter, noticed last week, thus:—

"We base our estimation upon difference or loss, but we do not arrive at our results by distillation. We give eight experiments for the express purpose of showing that method to be unreliable. Their only value is a negative one, excepting that by their means we show that there are at least 6 or 7 per cent. of volatile acids in butter fat. Beyond this, we place no reliance upon distillation. Our method, in short, is to saponify, decompose the soap, and weigh the resulting fixed fatty acids. There is on an average 9·65 per cent. less of these acids in butter than in any other fat."

*Dr. Colley.*—The numbers from the commencement of the present volume shall be duly forwarded. You will find the case in vol. xviii. of the *Medical Times and Gazette.*

*Tacitus.*—The Hunterian Oration for 1819 was given by John Abernethy.

*C. P. P.*—"Medical Ethics, or a Code of Institutes and Precepts adapted to the Professional Conduct of Physicians and Surgeons; to which is added an Appendix containing a Discourse on Hospital Duties." By Thos. Percival, Manchester, 1803.

*Vane.*— "Alas for man!
Exuberant health diseases him, frail worm!
And the slight bias of untoward chance
Makes his best virtues from the even line,
With fatal declination, swerve aside."—*Roderick.*

*S. A. W.*—The Albany Medical College, New York, was founded in 1845. The Physio-Medical College of Ohio was founded by Dr. A. Curtis in 1848. The Professors in this College teach the doctrine that irritation, fever, and inflammation are not diseases, but simply manifestations of vital efforts to restore diseased organs to the performance of their functions. They reject in their curative treatment all poisons or intrinsically injurious agents, and recommend only those the tendency of which in the degree, mode, or measure used is to harmonise with and promote the physiological actions. In surgical operations they advise only those escharotics that are incapable of entailing permanent injury on the constitution.

*A Surgeon.*—The number of students now pursuing their studies at the metropolitan medical schools is over 1700. This is the largest number in any year on record.

### HOMŒOPATHIC PRACTICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the *Monthly "Homœopathic" Review* for July, 1874, is to be found a would-be sarcastic address delivered by Dr. Dudgeon, at the late "Homœopathic" Congress, of which he was the president. In this paper, among other interesting facts, we find the following (p. 419):—"One can now practise pure homœopathy within the bosom of the old school without exciting any opposition on the part of old-school colleagues—indeed, with the applause of old-school journalists, and without disqualifying oneself for professional chairs and hospital appointments." This must be indeed good news—for some people; but if it is so easy to practise *pure homœopathy* within the bosom of the old school (which will probably be a fact previously unknown to most of your readers), it seems to be still easier to practise the system of the "old school" within the bosom of "homœopathy," as the following prescriptions by professed "homœopathists" now *lying* before me will demonstrate:—

1. Liquor sarzæ ℥xij., kali hyd. ℥ijss., ft. mist.
2. Kali hyd. ℥v., decoctum sarzæ co. (concent.) ℥xij., ft. mist.

This "homœopathic" mixture contains, therefore, four drugs! These two prescriptions are by a well-known City "homœopath," who is a member of the British "Homœopathic" Society, and one of its medical officers!

3. Podoph. gr. iij., ext. hyosc. gr. x., ft. pil. xij., to be silvered.

This is by a provincial "homœopath."

4. Podophyll. tinct. gtt. 30, sulph. 200 ℥ij. A draught to be taken at once.
5. Tartar emetic gr. jss., ignatia (3rd decimal) ℥ij., ft. mist.

These last two are by a City "homœopath."

6. A patent medicine called "Ladies' Ointment" for sore nipples; sold at 13½d. per box by a "homœopath" in the North of London.
7. Mercurius solubilis purus gr. xx., opium purum gr. x., bread gr. xx. ft. pil. xlviij. (in syphilis).
8. Hydrarg. biniod. gr. $\frac{1}{16}$ gr., pot. iod. gr. ij., ft. pil. j., ter die (in secondary syphilis).

The authors of the last two are members of the British "Homœopathic" Society, and also medical officers of a provincial "homœopathic" dispensary.

The author of the last lately gave three-quarters of a grain of podophyllin for constipation, and nearly finished his patient off.

9. Tinct. opii. ℥j., tinct. conii. ℥iij. aque ℥viij., ft. lotio.

This is a specimen of "homœopathic" practice in a large provincial own.

10. A few years ago a cupboard full of "allopathic" mixtures was found at a certain public "homœopathic" institution. To the credit of the lay authorities, it was removed; but the physicians who had employed them, and thus practised under false pretences, were allowed to remain. It would repay to visit some of these places, and expose the *fraud* which is perpetrated there. The use of lotio nigra in syphilis and lotio zinci in gonorrhœa is not infrequent among some of these men. Only recently a notorious "homœopath," whose practice is so large that he gives about three minutes and a half *per corpus vile*, advised *leeches!* These are only a few instances of what has come before my notice, but they must suffice for the present, and when I have any more interesting information of a similar kind I will communicate it. There is just one capital joke which I must repeat. A poor man was often visited in a friendly way by two "homœopaths" and one "allopath." Homœopath No. 1 prescribed vinum opii for sleeplessness. Homœopath No. 2 prescribed for his cough a *mixture*, to be made up at an allopathic chemist's. Lastly, the allopath called, and seeing the prescriptions on the table, exclaimed that homœopathic practice did not seem to differ very much from his!

As a wish has been expressed to reprint Dr. Dudgeon's address, and circulate it all over Great Britain, in order to convert people from the error of their ways, it might be worth while to suggest to the authorities the propriety of attaching an appendix to it containing the above prescriptions, that all may see the *other side* of the question.

There are, I believe, in London, some half-dozen *honest* homœopaths who really do conscientiously believe in Hahnemann's doctrines, and endeavour to faithfully carry them out, and there are a few more in the provinces. These of course all can respect as *honest men*, even when they cannot agree with them; but as for those who practise the old system, *while calling themselves homœopaths*, no one can look upon them without feelings of *disgust* and *contempt*.

I enclose my card. I am, &c., JUNIUS.

COMMUNICATIONS have been received from—

Messrs. Johnson and Sons, London; The Registrar of Liverpool Royal Infirmary School of Medicine; Mr. C. J. Egan, King William's Town; Dr. Tilt, London; Mr. James Robertson, Edinburgh; Mr. A. R. Emmerson, Ramsgate; Mr. C. Todd, London; Mr. J. Houghton, Duncannon; Mr. J. Tremearne, Victoria; Mr. T. Laxton, Stamford; Mr. E. Swain, Brookwood; Mr. Walter W. Reeves, London; Mr. T. H. G. Harding, London; Mr. H. Sewill, Loudon; The Registrar-General, Edinburgh; Mr. G. Brown, London; Mr. T. Stone, London; Mr. H. A. Kinloch, London; Mr. A. Anoell, Southampton; Mr. G. F. Masterman, Burnham; Mr. T. Stokes, Nailsworth; The Registrar of Apothecaries' Hall; Mr. L. Birt, London; Mr. T. Ennion, Newmarket; Mr. J. Gunning, Stranorlar; Mr. E. O. Smith, Solihull; Mr. Davidson, Carlisle; Dr. Theodore Williams, London; Dr. Venn, London; Sir J. Rose Cormack, Paris; Dr. A. E. Sansom, London; Mr. Wagstaffe, London; Mr. J. W. Hulke, London; Mr. H. Courtenay Fox, Stoke Newington; Mr. Henry Morris, London; Mr. R. J. Godlee, London; Mr. A. S. Perkins, Exeter; Mr. J. Chatto, London; Mr. James Spence, Scotland; The Rev. Professor Haughton, Dublin; A. S. A.; Mr. G. Eastes, London; Mr. G. Croxton, London; Mr. Benjamin Vincent, London; Dr. J. W. Moore, Dublin.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin del'Académie de Médecine—Archives of Dermatology, vol. i., No. 1—Leisure Hour—Sunday at Home—The Standard—West London Observer—American Journal of the Medical Sciences—Revue des Sciences Médicales—Science Gossip.

BOOKS AND PAMPHLETS RECEIVED—

Jeffries' Records of One Hundred and Five Cases of Operation for Cataract—Thomas's Practical Treatise on the Diseases of Women—Army Medical Report for the year 1872—Transactions of the Clinical Society, vol. vii.

## APPOINTMENTS FOR THE WEEK.

*October* 31. *Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

*November* 2. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Mr. Wm. Adams, "A Case of Strangulated Femoral Hernia reduced by large Injections of Oil." Dr. Redlet, "A Case of Transfusion of Lamb's Blood in Phthisis" (communicated by Dr. Theo. Williams). Mr. Wm. Allingham, "On the Treatment of Fistulous Sinuses by means of the Elastic Ligature."

Odontological Society, 8 p.m. Mr. Charles J. Fox, "On a Case of Fractured Jaw treated with Mr. Moon's new Splint." Mr. Francis Mason, "A portion of Tooth imbedded in the Lower Lip." Mr. Henry Sewill, "On the Use of Absolute Alcohol in Dental Operations." Mr. W. G. Ranger, "On Unusual Injuriés of Teeth." Mr. Oakley Coles will exhibit some Models illustrating the Treatment of certain Deformities of the Mouth. Mr. Charles Tomes will exhibit some Specimens recently added to the Museum. And other Communications.

Royal Institution, 2 p.m. General Monthly Meeting.

3. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8 p.m. Mr. Waren Tay—Two Cases of Alopecia Areata communicated from Ringworm, with the Trichophyton Tonsurans (living subjects). Dr. Whipham—Epithelioma of the Œsophagus Ulcerating into Trachea. Dr. Cayley—1. Syphilitic Disease of the Heart; 2. Congenital Disease of the Aortic Valves. Mr. Clement Lucas—Heart from a Case of Cyanosis. Dr. Goodhart—Acute Enteritis. Dr. Silver—Abscess of Liver associated with Dysentery and Sloughing of Appendix Vermiformis. Dr. Dowse—1. Cancer of Colon; 2. Cardiac Aneurism. Mr. Godlee—Alveolar Sarcoma of Skin of Leg. Dr. W. Legg—Primary Enchondroma of Lung.

4. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Mr. Churton, "Recto-Vaginal Fistula caused by a Zwanke's Pessary." Dr. Bathurst Woodman, "On the Prevention of Mammary Abscesses by the application of the Principle of Rest." Dr. Gervis, "Cases of Retroversion of the Gravid Uterus." Dr. Madge, "On a Case of Labour complicated by Pelvic Tumour and by Convulsions." And other Communications.

Royal Microscopical Society, 8 p.m. Dr. Fleming and M. C. Cooke, "On some Himalayan Leaf-Fungi."

5. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

Harveian Society (Meeting of Council, 7¼ p.m.), 8 p.m. Dr. W. Squire, "On Infection, and the Incubation Period of Infectious Diseases."

6. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, October* 24.

### BIRTHS.

Births of Boys, 1318; Girls, 1238; Total, 2556.
Average of 10 corresponding years 1864-73, 2111·7.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 684 | 609 | 1293 |
| Average of the ten years 1864-73 | 701·8 | 652·6 | 1354·4 |
| Average corrected to increased population | ... | ... | 1490 |
| Deaths of people aged 80 and upwards | ... | ... | 29 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | ... | 11 | ... | 1 | ... | 1 | ... | 5 |
| North ... ... | 751729 | ... | ... | 27 | ... | 2 | ... | ... | 2 | 4 |
| Central ... | 334369 | ... | 2 | 13 | ... | ... | 2 | 4 | 1 | 2 |
| East ... ... | 639111 | ... | ... | 45 | 1 | 4 | 3 | 5 | 3 | 8 |
| South ... ... | 967692 | ... | 3 | 9 | 3 | 3 | 1 | 7 | 1 | 6 |
| Total ... ... | 3254260 | ... | 5 | 105 | 4 | 10 | 6 | 17 | 7 | 25 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·775 in. |
| Mean temperature | 47·9° |
| Highest point of thermometer | 63·1° |
| Lowest point of thermometer | 36·0° |
| Mean dew-point temperature | 43·6° |
| General direction of wind | W.S.W. & S.W. |
| Whole amount of rain in the week | 0·09 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 24, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Oct. 24. | Deaths Registered during the week ending Oct. 24. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2556 | 1293 | 63·1 | 36·0 | 47·9 | 8·83 | 0·09 | 0·23 |
| Portsmouth ... | 120436 | 26·8 | 99 | 33 | ... | ... | ... | ... | 0·17 | 0·43 |
| Norwich ... ... | 82257 | 11·0 | 56 | 36 | 60·5 | 32·0 | 46·2 | 7·89 | 0·13 | 0·33 |
| Bristol ... ... | 192889 | 43·3 | 156 | 74 | 61·4 | 35·6 | 46·8 | 8·22 | 0·51 | 1·30 |
| Wolverhampton ... | 70836 | 20·9 | 58 | 25 | 59·8 | 36·7 | 47·4 | 8·55 | 0·03 | 0·08 |
| Birmingham ... | 360892 | 43·0 | 310 | 158 | 59·7 | 39·0 | 48·5 | 9·16 | 0·05 | 0·13 |
| Leicester ... ... | 106202 | 33·2 | 67 | 42 | ... | ... | ... | ... | ... | ... |
| Nottingham ... | 90894 | 45·5 | 61 | 35 | 60·1 | 35·4 | 47·4 | 8·55 | 0·11 | 0·28 |
| Liverpool ... ... | 510640 | 98·0 | 372 | 327 | 60·7 | 42·7 | 49·2 | 9·55 | 0·31 | 0·79 |
| Manchester ... | 355339 | 82·8 | 261 | 202 | 63·2 | 33·0 | 47·4 | 8·55 | 0·61 | 1·55 |
| Salford ... ... | 133068 | 25·7 | 111 | 71 | 61·8 | 34·0 | 47·9 | 8·83 | 0·67 | 1·70 |
| Oldham ... ... | 86281 | 18·5 | 57 | 45 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 105 | 81 | 60·0 | 38·0 | 47·7 | 8·72 | 0·58 | 1·47 |
| Leeds ... ... | 278798 | 12·9 | 205 | 159 | 61·0 | 38·0 | 48·1 | 8·94 | 0·30 | 0·76 |
| Sheffield ... ... | 261029 | 13·3 | 213 | 103 | 61·0 | 37·7 | 48·1 | 8·94 | 0·35 | 0·89 |
| Hull ... ... ... | 130996 | 36·0 | 108 | 90 | 60·0 | 32·0 | 46·4 | 8·00 | 0·02 | 0·05 |
| Sunderland ... | 104378 | 31·6 | 69 | 52 | 60·0 | 37·0 | 51·7 | 10·94 | 0·02 | 0·05 |
| Newcastle-on-Tyne | 135437 | 25·2 | 108 | 69 | ... | ... | ... | ... | ... | ... |
| Edinburgh ... ... | 211691 | 47·8 | 130 | 87 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 356 | 292 | 57·7 | 34·8 | 47·1 | 8·39 | 2·85 | 7·24 |
| Dublin ... ... | 314666 | 31·3 | 149 | 147 | 61·9 | 33·0 | 48·5 | 9·16 | 0·44 | 1·12 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5608 | 3421 | 69·0 | 32·0 | 47·9 | 8·83 | 0·43 | 1·09 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·78 in. The highest was 30·09 in. on Tuesday at noon, and the lowest 29·36 in. on Wednesday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

ON THE

## PATHOLOGICAL RESULTS OF PECTOUS CHANGES IN COLLOIDAL STRUCTURES.(a)

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

(*Concluded from page 467.*)

### PATHOLOGY OF PECTOUS CHANGE.

Whenever colloidal matter in the active aqueous form passes into the pectous condition there is an immediate change of function. The pectous colloid is dead, and, except it be required for such a passive purpose as protection—like the epidermis, nails, or hair,—it is useless, if not obstructive and injurious. If it were a liquid previous to the change, it was capable of taking up and of equally diffusing water, but that property is lost, and the substance has become practically—as is the case with this pectous fibrine—insoluble, the water, instead of being absorbed by it, being now thrown out from it by its contraction. If it were translucent, it has become opaque, as is the case with this pectous lens. If it were a membrane, it was moist and clear; it admitted readily through it all soluble saline substances that were presented to it dissolved in water, and it held colloids, like itself, on its surface. Now, as is the case with this pectous membrane, it admits salines through it imperfectly, and if fatty or saline substances be presented to it in excess, it entraps them, so that fat or salts which are not very soluble become incorporated with its own structure. Moreover, its power of removing water is impaired, and it becomes thereupon a receptacle for water if it form the covering of a closed cavity.

When from these considerations we turn our attention to pathological studies, and view what we know, practically, in pathology by the light of what we now understand of the physical character of colloidal changes, a new world breaks upon us. We read off in a simple physical language the causes of phenomena which were before obscure, and, what is more important still, we see a unity in what has been conceived diversity—unity perfect of its kind, and threading like a visible clue many of our most difficult paths in the study of disease. I will trace this clue in a few parts of its course—where it is most visible.

1. First, then, as to death itself. Death, whether it be local or general, of one organ or of all the organs of the body, is a pectous process. No animal can truly be said to be dead until the final act of attraction of cohesion has sealed together its colloidal structures. We may suspend this process, and thereby may produce a simulation of death; but there is yet property of motion in the animal, and while that exists, though it be only the last act of cohesive contraction, there is no death. John Hunter, with all his obscurity of language, pierced with the true eye of genius this fact, when he said that such final contraction is particle uniting with particle, and is the last act of life. Let me put forward, in illustration of this intensely important subject, the following experimental evidence:—

*Experiment.*—Here in this glass tube is a dead toad. The animal was rapidly killed by being made to breathe an anæsthetic vapour. It was instantly frozen hard by ether spray, and was then placed in a metal tube with a side opening, like the pocket-lamp tube which we use in the railway-carriage. The tube, well closed, was immersed in a freezing mixture; and thus, in the glacial state, the animal has been kept for several hours. Now I open the side of the tube, and you see the animal. To the ordinary mind nothing could be more thoroughly dead than its frozen body. It is so hard that when it is touched it is like the metal that surrounds it. Is it dead? No! its colloidal muscular matter is still aqueous, and is capable, therefore, of passing through one more act of life—that of attraction of cohesion. The animal is at this moment a hard but soluble water crystal. Before it can be called dead, its blood, its lenses, its nervous matter have to coagulate; its muscles have to contract. Then, as we can do nothing to restore functions that have been arrested by these pectous changes, we may declare the structures dead; but not until then.

*Experiment.*—I attach to a limb of this apparently lifeless animal a bit of silk thread, and, without hurry, loop the other end of the silk gently, but with sufficient tenseness, to the lever of a small dial—a dial such as the watchmaker uses for gauging the thickness of his fine pivots and wires. I have so adjusted the spring on this dial that any movement produced by tightening of the silken cord will move the hand on the face, and mark the degree of tension as accurately as the hand of a clock marks the hour. We have in this manner completed the arrangement mechanically, and we wait the result.

The animal, removed from the extreme cold and placed in the warm air, will gradually thaw. Its muscles will thus be entirely released from the glacial state, and their colloid matter will reassume for a moment the active aqueous form. From this aqueous form they will pass into the pectous by the attraction of cohesion. The attraction will be shown by the movement of the hand on the dial, for the contracting muscles will pull on the silken cord, the cord on the spring, and the spring on the hand. Then probably all further motion will cease.(b)

It is in experiments of this nature I have sometimes seen the startling phenomena, in fish and in frogs, of restoration of the organic activity during the process of thawing, and of restoration of perfect life. In such instances the animals have awakened as from a lethargy, and have lived as though they had, indeed, been merely rendered insensible by a narcotic vapour. If this very animal had been carefully thawed at a temperature sufficiently high to melt the ice, yet not sufficiently high to render its colloids pectous, it would probably have recovered.

Up to the present time we are unable to insure recovery in every case of this nature, and we can only insure it in any case in a small, cold-blood animal. In what lies the difficulty? In this simple fact—that unless all the colloidal structures of the body of the animal are at the same moment equally fixed in the glacial condition, and unless, in thawing, they are all equally brought back to aqueous activity, the restoration, though perfect in parts, will be useless in restoring the organism as a whole. I may restore the muscle to activity; but of what avail is that if the blood be pectous? I may restore the muscle and blood; but of what avail is that if the nervous centres that stimulate the heart and other muscles into motion be pectous?

So we stand at this hour with the elements of an immortal truth in our hands, yet unable to carry out, from lack of physical skill, what we foresee may be done. We shall not always stand so helpless. The light breaks on the problem, and by persistent experiment we shall steadily advance. I venture, backed by experiment, to predict that a day will come when human beings we now consider dead, but in whom the organic parts are left uninjured, will be brought in suspended state of life (like the suspended life of this small animal) to our great centres of science to be restored, as the blind from cataract are now brought to regain, by art, their sight.

Death, then, is a pectous change of colloidal matter, but in the act there is an order of proceeding in relation to time. I mean by this, that under the same conditions the different organs of the body that are of colloidal construction undergo the process of cohesion at different rates of time. In order to see this truth in all its fulness, it is necessary to observe the phases of the process in a lower animal in which death has been induced after the manner of a sleep—rapidly, but in the gentlest form,—if possible, without a struggle of the animal. To make the method of observation complete, the external temperature must be maintained equally, and, as far as can be, the most perfect mechanical rest must be obtained.

These necessities of observation realised, the order of pectous phenomena in different parts and organs seems, from many observations I have made, to run approximatively in warm-blooded animals in this wise, in regard to time:—

1. In the cerebro-spinal nervous matter.
2. In the blood—first in the minute vessels; next in the larger vessels, veins of the trunk; lastly, in the cavities of the heart.
3. In the muscular structure of the left ventricle of the heart, followed soon by the right ventricle.
4. In the involuntary muscular fibre, and in the minute vessels of the circulation.
5. In the voluntary muscular fibre.

(a) Lecture introductory to the Session 1874-75 of the Hunterian Society, delivered in the London Institution on October 14, 1874; Robert Barnes, M.D., F.R.C.P., in the chair.

(b) In this experiment the final degree of attraction registered on the dial was a little over the fourth of an inch.

6. In the muscular structure of the left auricle of the heart, followed by the right auricle.

7. In the membranes, commencing generally in the cornea, and giving the dimmed lustre so characteristic of death, but soon extending through all the serous surfaces.

8. In the lenses, in which apparently the change does not commence until the membranous capsule, by its contraction, starts the process.

These data as to the occurrence of the pectous colloidal change after quiet rapid death lead us on to another appearance of our clue in the phenomena of death from old age—the phenomena of what may be called the natural death. This death is, indeed, a pectous change gradually induced, and constantly preceded by local and fixed pectous modifications in organs not directly essential to life. Slowly, part upon part loses its aqueous active condition, until at length the mere vegetative structures come under the influence, and the final combination of particle with particle brings the shrunken structures into absolute inertia.

I have already said that in assigning to different parts of the body an order of succession into the pectous or dead form of colloidal substance the mode of death must be gentle and rapid.

If the death be sudden and violent there may be no interval at all in which to mark the order of attraction of particle between one structure and another. In a frog, exposed immediately upon its death to the vibration of heat, the change of colloidal matter from the aqueous into the cohesive form is instantaneous and universal. The same may occur in other animals from a mechanical blow in which all parts of the body are brought directly under the vibration. But the most convincing evidence of this kind has been supplied in the experiments I was enabled to make with the large induction coil of the Royal Polytechnic Institution. In those experiments, by passing a current, in cascade, through them, the bodies of large animals were struck by one blow into instantaneous colloidal cohesion. Nervous matter, blood, muscle, membranes, lenses, were all alike, and at the same moment, transformed from the aqueous into the pectous condition of colloidal matter.

This sudden form of pectous solidification may occur from other causes. It may come on from a rapid increment of heat. In a hot-air bath at 190°, in which I was able to live owing to the free evaporation from the skin, a fowl died momentarily after it had been but three minutes in the same atmosphere, the whole of its colloidal structures fixed in contraction, and with water commencing to separate from the contracting masses.

In tetanus this same event may occur if the increment of heat be rapid; the rigidity from the spasm may be so confirmed that the muscular fibre and the other colloidal parts may pass directly into the pectous consolidation. I was present recently at a case of sudden death from acute tetanus, where this actually took place. A swift and general spasm, excited as it appeared to me by the attempt to swallow some liquid, reached, in a few seconds, such extreme solidity of contraction of muscle, that I was unable, with all the force I could bring to bear, to move the muscles of the chest for artificial respiration. In this rigid state the man remained, set in the pure rigidity of death, until the muscles began to pass into the new stage of crystalloidal decomposition. Whenever the temperature of the body is raised, and the increment of heat we call fever is established, the tendency of all the purer colloidal fluids is to the pectous condition. This may be general, as in what is called "heat tetanus"; it is more frequently local, and indeed is the cause of all those colloidal inflammatory separations and destructions with which we are so familiar in our daily practice.

## Local Pectous Changes.

### *In the Blood.*

Through the whole series of morbid conditions that are localised in character, the occurrence of change in the colloids from the aqueous to the pectous state is recognisable. Since the splendid paper of William Gould on polypi of the heart, written in 1684, we have become familiar with this change in the blood; and during the past twenty-five years we have learned, or I had better have said relearned, the clinical history of this subject, until it has at last taken position as a recognised and important study. It is true we have tinctured our learning with a great deal of the grotesque in language, and have succeeded but little in reaching the basis of what has yet to be discovered before much progress of a scientific character can be made. But we know the general facts of the pectous separation of fibrine while the blood is circulating in the vessels, and of many of the effects of such separations taking place in the heart and in the other portions of the circulating channels.

In the blood the fibrine is so near to the purest colloidal form of matter, and is held in such feeble combination with water, slight causes are sufficient to lead to its separation. The blood is influenced, in a word, by all those changes which we have seen dispose it to pectous solidification out of the body. The following are the conditions favouring this tendency:—

(*a*) An excess of colloid in the volume of the blood, as is the case in acute inflammation.

(*b*) An excess of water, as in acute dropsy.

(*c*) An obstruction to the course of the blood, leading to friction against the opposing substance.

(*d*) A rapid elimination of water and of saline matter, as in cholera.

(*e*) An enfeebled motion of blood over an enlarged surface, as in aneurism.

It is worthy of observation that in all these forms of pectous change the fibrine is, as a rule, entirely separated from the other colloidal constituents—the albumen and the corpuscle. The separation is most common on the venous side of the circulation, and in most instances will be found on careful examination at the place where it was actually laid down. Mechanically, the pectous development assumes six forms—The false membranous separation, in which it is laid down within the cavities of the heart; the hollow cylinder containing red blood, in which form it is sometimes found in the pulmonary artery, in the aorta, and in the sinuses of the brain; the spiral or corkscrew cylinder with red blood in the grooves, in which form it is occasionally met with in the pulmonary artery; the simple cylinder of varying form and size, according to the position in which it is cast; the mould, in which form it is met with in the cardiac cavities, impressed with the marks of the folds and muscular fibres; the bead, in which state it adheres to margins of valves or tendinous cords; and lastly, the fibrillated, in which form it is separated in extreme vessels, as in the extremities of the pulmonary artery at the end of a portion of pectous blood in which the red colouring matter is retained with the corpuscles.

The pectous change may take place in the corpuscular matter of the blood, and the attraction of cohesion between the corpuscles may be such as to lead to their rapid aggregation. Thus they become obstructive to the course of the blood in the minute circulation, and the frequent cause of local changes resulting in the resolution and removal of the pectous and dead matter.

### *In Exudations.*

Pertaining to the colloids of the blood there are conditions in which they find their way even through a dialysing membrane. From resistance to the passage of water through a pectous membrane, there may be exudation of colloid from simple mechanical rupture. There is, however, a more definite cause of exudation without rupture. If colloidal matter be rendered unduly aqueous, either by extreme dilution with water or by excess of saline, the colloid will dialyse to a certain extent through the membrane.

*Experiment.*—A simple experiment illustrates this last-named fact in a practical way. In the flask I send round is a solution of albumen, to which has been added a free quantity of urea. The urea, a very soluble salt, has rendered the albumen sufficiently fluid to dialyse easily through membrane.

*Experiment.*—I have taken some of this fluid and placed it in a dialyser, the membranous part of which is a sheet of peritoneum freshly stripped from a bladder. I have floated the dialyser containing the albuminous saline fluid on water. I now take a little of the water in which the dialyser floats, and test for albumen as if I were testing urine. You will observe that the evidence of the presence of albumen is at once demonstrated.

*Experiment.*—There is a portion of the lung of the sheep here on the table, which lung has been subjected to the following experiment:—So soon as it was removed from the recently dead animal, its bronchial tubes were entirely emptied of air. Then into the bronchial tract, blood, held fluid by ammonia, was injected gently so as to permeate the minutest part without rupture. Lastly, the lung was floated in water containing a minute portion of dilute hydrochloric acid, the solution being frequently changed. The solvent of the blood

passing through the membranous structure of the lung and through the pleural membrane has left the fibrine extravasated in the pulmonary texture, and there it has become pectous. In some parts the colouring matter of the blood has also passed through the membrane, in which parts the fibrine is left in white patches in a form very characteristic in its resemblance to the recent fibrinous exudations met with during some post-mortem inquiries.

Here, then, we see a simple explanation of the extrusion through membrane of a colloidal fluid. A colloid extruded from the blood can pass through a membrane with a solvent. If it be albumen only that has passed, and it be carried into an open cavity such as the bladder, or into a distensible cavity such as a cyst, it may remain merely in solution. But if a more refined colloidal fluid be thus extruded it may become pectous, and in that condition be a source of death to all surrounding structures unless it be resolved and removed.

*In the Lens.*

The phenomenon of pectous change is well illustrated in a small but important manner in the disease cataract. In this example the crystalline lens (it should be called the colloidal lens) changing from the aqueous to the dead or pectous state is singularly illustrative.

Our study of this subject is refined to a remarkable degree, because we can during life and immediately after death induce the cataractic condition by merely repeating those processes, described in the first part of this lecture, which are conducive to the pectous modification of a pure colloidal material. Here, in a dead animal, a carp, a cataract has been induced by the action of a saline, in excess. The experiment is the same as that in which I made blood pectous by surcharge of hydrate of potassa.

The knowledge we thus obtain on the methods of rendering the colloid lens pectous is, I think, one of the most interesting in pathology. It explains in the simplest physical manner the diabetic cataract; it explains equally senile cataract; and, traced out to its fullest extent, it will, I doubt not, explain the development of every variety of the disease with which the practitioner is in this day familiar. Whatever the form of cataract may be, the physical condition is the same. The colloid lens or its capsule has ceased to be aqueous, and, thus disarranged in molecular construction, is rendered opaque and practically dead.

*Pectous Membranes.*

I have time only to refer, very briefly, to the effect of pectous change on the function of the membranes of the body.

In all closed cavities nature gives us double membranes, and thereby what may be called double dialysis. If these membranes, lining a cavity, are all equally aqueous, water passing through them is always in current, as though, indeed, there were but one membrane. But, if a portion of such membrane become pectous, then the course of the current is impeded, and there is accumulation of fluid.

If, again, the membrane be in the form of a simple cyst charged with albuminous fluid, a pectous state of that membrane will lead to accumulation of fluid within the cyst, owing to the suppressed dialysis.

If, once more, the membrane surrounding closely a vital organ be rendered pectous, its action upon the organ as it shrinks and solidifies is of the most signal importance in arresting function. Thus, the dura mater rendered pectous and dialysis through it checked, the direct pressure on the brain is equivalent even to change of brain-structure itself. The same applies respectively to the effect of the change on Glisson's capsule of the liver, and to other organs similarly membranous.

*Pectous Nervous Matter.*

Perhaps, however, the most important pectous change of all is that which occurs in the nervous matter. The nervous matter may pass from the aqueous to the pectous condition with the same rapidity as the blood, and under similar influences.

I believe myself that sleep is due to a temporary pectous condition of the nervous substance; but, not to press this, I may venture fairly to trace certain pathological nervous changes, in which no visible lesion is left, as arising from this cause.

The sudden insensibility from a blow or from an electric discharge is due to the pectous modification induced in the nervous substance; while varied forms of disease, of coma, of paralysis, irregular movement, sudden dissolution, occurring in the course of acute diseases, are, I believe, as fairly traceable to the selfsame cause. Notably the paralysis of diphtheria will come under this head of physical causation.

At the same time there is in the easily oxidisable nervous substance a facility for recovering from the pectous modification which belongs to no other part of the animal organism.

THE SUBJECT IN RELATION TO TREATMENT.

If the subject I have ventured to lay before the Society be important in its physiological and pathological bearings, it is certainly not less important in relation to the treatment of disease.

Presuming it to be correct that death cannot take place while all the colloidal structures of the body retain their natural active aqueous condition, we are led to something that is immediately cardinal in treatment. We have to consider whether by a distinct therapeutical advance we cannot prevent the pectous change, and even resolve it when it has occurred.

In the matter of prevention we have arrived at certain practical truths of great moment. It is the fact that by diffusing through the tissues certain chemical substances, ammonia especially, which by their affinity for water suspend the pectous change, we can, when the conditions of disease favour the change, put an obstacle in the way of it and so prevent a fatal obstruction.

But when once a pectous separation has occurred, the difficulty increases; and towards solving this difficulty we have not yet arrived at any correct and uniform knowledge, because in truth we have not known in what the difficulty really consisted. Now we get a glimpse at it we may face it with a firmer will and with natural fact for our guide.

Nature solves the problem of removal of pectous matter in two ways: in some instances, as in the process of digestion of pectoid substances, and in the formation of pus, she resolves the substance back to the aqueous form. In another instance, as in the disposal of muscle, she breaks up the pectous mass into a new and crystallisable body, which in solution can be conveyed away. We sometimes empirically imitate nature in this latter act, as when we make solution of an effused and pectous lymph by the administration of mercury to salivation; but we bungle because we fail to localise the physical action we have set up, and involve, therefore, all the colloidal structures in the effect we produce.

Recently, I think I have seen nature imitated by art in the first process—that, namely, of resolution,—since it has been my good fortune to observe three cases of disease in which, after the colloidal fibrine had become pectous, it was resolved, under the influence of ammonia, into a fluid condition again, and, circulating through the blood, created only a temporary embarrassment from which the patients made good recoveries.

I must not dwell further on this topic. Sufficient is it for me to have striven to direct the mind towards it, guided by the pathological clues that so far have become disclosed on our way.

As I have put my hand, Mr. President and gentlemen, to this hardly unrolled scroll of nature, and, unrolling it a little further, have essayed to decipher the comprehensive lesson it reveals, I have almost trembled with anxiety lest I may have translated it by an imperfect key. Revising it again and again, I become more conscious that, with many probable errors of detail, the translation, so far, is on the whole true; with which consciousness I submit it without reserve to your learned scrutiny.

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THE PHYLLOXERA.—Among the weekly budget of communications concerning this destructive insect which M. Dumas lays before the Académie des Sciences was one from M. Marignac, of Geneva, stating that its presence in the vines of the environs of that city is now a well-established fact, and that it has been there for the last three years. Now, it seems that M. Dumas has paid a recent visit to Geneva, and all the proprietors in the very locality referred to whom he interrogated on the subject declared that their vines were quite free of the *phylloxera*. "If," says M. Dumas, "in so enlightened a country, where science is so well cultivated by so many persons of great distinction, this scourge, the object of everyone's preoccupation, has not been recognised for so long a period, it is quite certain that it exists unperceived in many other localities. It is therefore necessary to search closely even in places which seem quite secure."

## ORIGINAL COMMUNICATIONS.

# TWO CASES ILLUSTRATING THE SURGERY OF WOUNDS OF THE DEEP-SEATED ARTERIES OF THE LEG.

By JAMES SPENCE, F.R.S. Ed.,
Surgeon-in-Ordinary to the Queen in Scotland; Professor of Surgery in the University of Edinburgh.

*Case* 1.—*False Aneurism on the Front of the Leg from Wound of the Bifurcation of the Poplitcal Artery, successfully treated by Ligature of the Vessels implicated.*

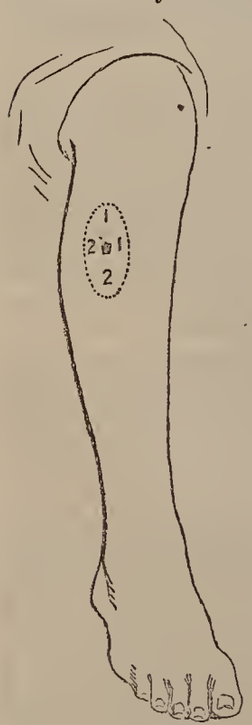
In the *Medical Times and Gazette* for June 29, 1872, I described a case of large diffuse false aneurism of the leg, resulting from a wound of the posterior tibial artery at the point of bifurcation of the popliteal. The following case is another example of false aneurism from a wound at the bifurcation of the popliteal, inflicted from the anterior aspect of the leg. It possesses several features of interest to the practical surgeon.

On June 20, 1873, I received a letter from my friend Dr. Taylor, who was on a visit at Forres, giving me the history of the case, and asking me to come north or to advise as to treatment. The following is Dr. Taylor's account of the case:—

"A farmer, while out shooting on the 4th inst., made a halt, and, wishing to become possessed of a thorn branch, took out his knife and proceeded to cut it. The knife slipped and entered his leg. He was not aware that he had sustained any injury until he saw the blood, and on seeing this he tied his handkerchief round his leg outside his trousers and walked home. Dr. Murray was sent for, and on his arrival loosened down the leg and proceeded to clear away some clots, whereupon a gush of blood spurted out on his shirt-front. He pressed his thumb upon the wound, and on lifting it by-and-by to look for the source of the bleeding, found that the bleeding had entirely ceased. The blood which came was dark. He sent for Dr. Innes, and remained till his arrival. They found the part much swollen and pulsating. By using the stethoscope they heard a whirring sound accompanying each pulsation. Treated it with cold, rest, and bandaging.

"On Sunday, Dr. Ross, Inverness, saw it in consultation with them. Recommended acute flexion of the limb, which was kept up for two or three days, but could not be borne. The leg was therefore liberated yesterday, and placed on an inclined place; and to-day, when I saw it, we placed it partially flexed and elevated upon pillows.

"The wound occupies the position indicated below, and is of a proportional size relatively to the limb. The area of swelling is indicated by the dotted lines, and the bruit is loudest at the distal portion, and also towards the posterior aspect of the wound (2, 2), while it is less loud at the parts marked 1, 1.




"When the man stooped to cut the thorn, his knees were bent, and he was therefore in an almost crouching position; and from the limited area of the external opening, and the force likely to have been employed, I think it probable that the blade has plunged deeply and probably entered the vein and artery both. From the character of the bruit, and the force of the impulse communicated to the swelling, it must be, I think, the anterior tibial. Of course the external wound does not give us any reliable information regarding the direction of the wound any more than of its depth. Dr. Murray has introduced the probe, but it has only traversed laterally and equally in all directions. The pulsation and bruit entirely cease when pressure is made on the femoral."

In reply to Dr. Taylor's letter I advised that the patient should be brought to Edinburgh, as, judging from the history, I thought an operation would be indispensable; and as the patient lived at some distance from Forres and from medical assistance, I considered he would be safer in Edinburgh in case of any secondary hæmorrhage or other accident occurring subsequent to the operation. Accordingly, the patient was brought to Edinburgh by Dr. Taylor on the evening of June 24. I saw him shortly after his arrival; the wounded limb had been methodically bandaged, and there had been no bleeding during the journey. He was, however, a delicate-looking man, and had evidently suffered from the previous loss of blood. As his tongue was clean, and no fever present, I decided on operating next morning, and therefore did not examine the limb or undo the bandage.

On June 25, at 11 a.m., assisted by Dr. John Duncan and Dr. Taylor, the patient having been put under the influence of chloroform, and a tourniquet applied to command the lower part of the femoral artery, I slit up and removed the bandage. On removing the lint in immediate contact with the wound there was a spurt of dark blood. I found the general appearance of the limb much as described by Dr. Taylor in his letter, but there was more swelling, and some redness of the surface near the wound. On introducing a probe it passed obliquely, deeply, back and upwards. Introducing a straight probe-pointed bistoury into the wound, I cut downwards in the direction of the outer edge of the tibialis anticus to a sufficient extent to enable me to introduce my finger. On doing this a little purulent matter escaped. On displacing some clot I felt my finger pass through the interosseous membrane at the upper part of the wound. I freely enlarged the incision upwards and downwards, in the line already indicated, to the extent of about six inches, and turned out first a mass of soft clot lying between the tibialis and common extensor muscles. This clot had separated and dilated the intermuscular space so that the wound of the interosseous membrane could be seen. At the deep and upper part of the wound a small, firm, decolorised and conical mass was found; on this being removed, and the wound sponged out, the wounded vessel was seen presenting a large oval opening, the edges of which felt thick. On proceeding to clear the wounded vessel for ligature, I saw the anterior tibial, all but separated, passing downwards along the tibialis anticus. From the direction and position of the large artery in which the opening was seen, it was obviously the posterior tibial, and the knife had evidently wounded the bifurcation from below, almost severing the anterior from the posterior tibial artery—something as shown in this diagram. Having cleared the artery, I applied two ligatures of carbolised dentists' silk, one a short distance above, and the other immediately below the opening, and a third upon the nearly divided end of the anterior tibial artery. On slacking the tourniquet blood still welled up from the opening. Supposing that the upper ligature might not fully command the large orifice, I cleared the parts upwards for four or five lines, which exposed the lower part of the popliteal, immediately above the bifurcation. I passed and tied another ligature; but there was still some oozing. A small twig was seen near the deligated part of the vessel, which was also tied, but still some oozing continued from the wound in the artery. I therefore applied another ligature immediately above, almost on, the opening, when all oozing ceased. The wound was then thoroughly cleansed with weak carbolic lotion, the ligatures brought out, and the margins of the wound closed by silver sutures. A layer of waxed tissue-paper was applied next the wound, and the limb enveloped in a sheet of cotton wadding and laid on a soft pillow. An opiate was given when the effects of the chloroform had passed off.

The patient went on favourably, though subject to dyspeptic attacks and flatulence. On the second day after the operation the pulse could be felt in the posterior tibial artery at the inner ankle, and the foot and limb were of good temperature. The discharge from the wound was moderate, at first grumous (as might be expected), but gradually becoming purulent. On the fifteenth day all the ligatures came away except one, and this was thrown off on the seventeenth day after the operation, without the slightest oozing of blood, and the upper part of the wound cicatrised rapidly. In the fourth week Mr. G. seemed so well that I allowed him to be taken into another room for a change. Next day, however, he was restless and feverish; his tongue was foul, pulse quick, and his temperature had risen from 98° to 101·2°. On examining the limb, which had been gradually assuming the natural size, I found it swo l n

and erythematous, and the discharge had a peculiar fetid smell. I therefore reopened the lower part of the wound to allow the discharge free vent, and because I suspected that some of the fascial texture was sloughy. Lint soaked in a mixture of powdered charcoal and warm water was applied over the wound, and the patient was directed to take fifteen drops of the muriated tincture of iron four times a day. Several portions of fascia came away as sloughs during the dressings, and one morning, seeing a portion of the tendon of tibialis anticus exposed and looking sloughy, I laid hold of it with the dressing forceps to see if a portion of it were separating, when it came away from below, and in drawing it out what appeared to be the whole of the fleshy portion of the muscle came away along with it, much softened, but still retaining its prismatic form. The tendon seemed to have separated about an inch above the ankle. After this there was no more fetor, and only moderate healthy discharge and the separation of scales of bone from an exposed portion of the tibia corresponding to the separation of the tibialis anticus. The erythema and the constitutional symptoms speedily subsided. Convalescence became established, and the wound so nearly healed that Mr. G. left Edinburgh for his home on August 13, 1873—seven weeks from the date of the operation. His subsequent treatment was carried on by Dr. Murray, of Forres, from whom I heard of the patient's continued favourable progress, and ultimately that he was able for a considerable amount of walking. Being in Forres in August last, through the kindness of Dr. Murray, who took me to see Mr. G., I was enabled to judge of his state a year after he left my care. The injured limb is now almost equal in bulk and muscular development to the sound one. The wound is thoroughly and firmly cicatrised, but a deep depression marks the position whence the mass of the tibialis anticus had separated. The woodcut, from a photograph, gives a good view of the limb in its present state, though, as in all photographs of cicatrices, the depth is exaggerated by the very dark shadow. All the movements of the leg are perfect, except the power of bending the ankle and extending the toes, which movements are considerably impaired. But Mr. G. walks for long distances without much fatigue, and is able for all the active duties of his business as a farmer.

*Remarks.*—I think that the character of the wound in this case presents some points of interest. There is no difficulty in understanding how a deep wound in the upper part of the leg, whether inflicted from before or behind, may involve both the anterior and posterior tibial arteries, but in that case we might naturally expect that the extravasation of blood into the limb would not be limited to one aspect of the leg, but would be more or less generally diffused. From the history of the accident and the force with which the knife was impelled, I was prepared for the risk of wound of both vessels, and, indeed, had mentioned it in my reply to Dr. Taylor's letter as one of the complications which made me advise Mr. G. being brought to Edinburgh. But when I saw the limb and felt no extravasation on the posterior part of the leg, and the aneurismal swelling limited to the anterior aspect, I came to the conclusion that the anterior tibial alone was injured; and it was only after introducing my finger and feeling the wound in the upper part of the interosseous membrane that the uncertainty of such a diagnostic presented itself. A little consideration of the surroundings of the wounded vessel at the point where it was wounded, together with the nature of the wound and the treatment immediately adopted, will explain the direction and limitation of the extravasation. The sharp knife had penetrated with full force deeply in a direction from below upwards, and almost severed the anterior tibial at its origin from the popliteal. The wound in the posterior tibial, therefore, was the result of this severance, and consequently on the anterior aspect of that vessel; thus the blood would escape without obstacle in the forward direction, whilst the cellular connexions of the artery and the muscular and fascial textures around and on its posterior aspect being undisturbed would tend to prevent the blood from passing backwards. The methodical and immediate arrest of the bleeding by bandaging and flexion of the limb had prevented there being great extravasation in any direction. Thus it will be seen that the limitation of such an aneurism is not an absolutely certain diagnostic of only one of the vessels being wounded. Another point in reference to the wound of the vessel is the character of the hæmorrhage when the wound was first examined by Dr. Murray. When that gentleman removed the dressing he was covered by a forcible gush of blood, which he at once arrested by pressing with his finger in the wound, and after a few minutes, when he slowly withdrew his finger, there was no more bleeding, nor could any bleeding point be seen. Such a cessation of hæmorrhage is very apt to mislead the surgeon to suppose that only some small artery has been wounded, and that the first gush is from blood which has been confined by the dressings; but it is really characteristic of certain forms of arterial hæmorrhage. In recent wounds of arteries, such as those of the leg and forearm, if the wound be nearly parallel to the course of the vessel or slightly oblique, more or less across the circular fibres of the middle coat, when the limb is held straight the vessel is on the stretch, and the wound in its coats becomes almost linear, and there is no hæmorrhage. Hence it often happens that while the limb is held steady for the surgeon to examine the wound, there is no bleeding point to be found, but whenever the limb is left free and the vessel relaxed bleeding again begins. A very good illustration of this will be found in Liston's "Practical Surgery," in a case of wound of the anterior tibial artery. As regards the operative procedure I adopted, it was that which I have always advocated—to commence by enlarging the existing wound sufficiently to admit the finger to examine the state of the parts, and then to prolong the incision directly in the line of the vessel injured. In cases of false aneurism, where some weeks have elapsed from the time when the injury was received, it will generally be found that the vessel is reached with much less difficulty than might be expected, and that when the clots are removed and the parts cleansed the wound in the vessel is very distinct, presenting a round or oval opening with thickened edges, so that it may be felt as well as seen. The extravasated blood separating the parts, dilating the inter-muscular spaces, and pushing the muscles aside, prepares the parts for the surgeon; and if the skin and fascia be freely divided, the difficulties of reaching even a deep vessel like the anterior tibial at its upper part are much diminished. The enlargement of the wound in the artery arises from the manner in which the natural hæmostatic process occurs in a wounded but not completely divided vessel. In such cases there cannot, of course, be any retraction or contraction of the coats of the artery, nor plastic lymph exuded, causing cicatrisation of the divided coats, as in a vessel cut across. The hæmostatic process here is, for a time at least, limited to the formation of blood clot, and this clot forms partly within the opening in the artery, as well as in the surrounding cellular tissue; so the aperture is kept distended and blocked up by the clot until irritation of the vascular coats and plastic effusion complete the obliteration of the vessel at the wounded point. When this process proves abortive, as in false aneurism, then we can easily understand why we see a distinct aperture with defined, thickened, and rounded edges, so distinct that, in deep-seated vessels, feeling might guide us to the wounded point. But whilst I thus explain the favourable conditions in false aneurism, I would not wish to be supposed as arguing for delay in securing a wounded artery, for it must be kept in mind that delay often leads to serious risks and dangerous complications, such as unhealthy suppuration, matting, and loss of distinction of important parts in the vicinity of the wounded vessel, which may increase even the difficulties of the operation. I would observe, from the uppermost ligature being placed on the lower part of the popliteal after a very slight clearing of the textures with the knife, it seems to me that the possibility of doing this from the front of the leg must have depended on the stretching of the vessel and the dilatation of the parts, or that the popliteal must have divided rather lower down than usual; for on the dead subject I have found it very difficult to reach the vessel as I did in the above case. The only other circumstance I shall mention is separation of what appeared to be the whole tibialis anticus muscle with a large portion of its tendon. Was

this due to rapid death from loss of vascular supply? This could scarcely be the case, for it did not separate till nearly five weeks after the operation, and then the collateral supply should have been re-established. I rather incline to the belief that it arose as a consequence of the erysipelatous inflammation leading to the death of a structure, the vitality of which had been so seriously impaired in its nutrition.

(*To be continued.*)

## EARLY NOTICE OF CHOLERA IN INDIA.

By JOHN MACPHERSON, M.D.

I HAVE been favoured by that eminent Orientalist, Professor Dowson, with the following information respecting the occurrence of cholera in India at an early date. Jehangir, in his authentic biography,(a) mentions that "one of his nobles died of the cholera (*haidsa*), in the Deccan, in the year 1616." He goes on to say:—

"In this year a dreadful plague (*waba*) broke out in many parts of Hindustan. It first appeared in districts of the Punjaub, and gradually came to Lahore. It destroyed the lives of many Mussulmans and Hindoos; it spread through Sirhind and the Doab to Delhi and its dependent districts, and reduced them and the villages to a miserable condition. It has now wholly subsided. It is said by old men, and it is also clear from the histories of former times, that this disease had never before appeared in the country. I asked the physicians and the learned men what was the cause of it, as for two years in succession the country had suffered from famine, and there had been a deficiency of rain. Some said it was to be attributed to the impurity of the air, arising from drought and scarcity, but some ascribed it to other causes. But God knows, and we must patiently submit to His will."

I may be allowed to offer a very few remarks on these interesting notices.

As regards the death by cholera, it very conveniently fills a blank in the annals of that disease. Although there are accounts of the prevalence of cholera in the East generally between 1589 and 1639, there was no positive case on record of its occurrence in India proper within those dates.

Then the word *haidsa* is unmistakable; it is the word used for cholera by the Arab writers, and the most common term in India for the disease at the present day.

This also is the first notice of cholera in the interior of India. Other mention of it referred chiefly to the coast, to Goa, and Calicut.

Next as to the epidemic, the *waba* or pestilence: though this word does not necessarily mean cholera, I agree with Professor Dowson that it must in all probability have been cholera in this instance.

The disease would not have been considered anything at all novel if it had been merely a pestilential fever. Nor does the fact of learned men not being able to say what the disease was, and still less what was its etiology, really militate against its having been cholera, although we know that it had occurred in India long before this date.

D'Orta, writing at Goa in 1583, does not allude to the great epidemic of the disease in that place in 1543. The Calcutta people, although they had a temple to the goddess of cholera, looked on the disease when it invaded them in 1781 as a new one; and again by 1817 they had forgotten the invasion of 1781, and, indeed, later small ones.

Though not, therefore, supposing that the disease was absolutely new, we may still fairly infer that cholera was not a very common epidemic in Upper India at the time when Jehangir wrote.

The connexion between this pestilence and the occurrence of a drought and a famine is worth observing; as also its origin in the Punjaub and its spreading down-country, contrary to the rule which is now usually supposed to prevail in this respect. The origin of this epidemic affords additional evidence that in past times cholera arose in various parts of India, whether the disease originated anew, or only found local conditions apt for the multiplication of its germs. It is only in modern days that it is correct to look on Lower Bengal as the special home of cholera.

It is worth while to consider how very different the climate and local circumstances are in the Punjaub, in the Deccan, and in Lower Bengal or on the Malabar coast, in all of which cholera appears to have originated, as it certainly has flourished. This consideration is of more importance when we find that cholera has apparently been naturalised for a long series of years in Persia, and has even shown signs of attaching itself for long periods to European Russia, where medical men have had difficulty in determining whether the disease was cholera indica or cholera nostras.

35, Curzon-street, W.

(a) MS. belonging to the Royal Asiatic Society, pp. 345, 348.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## ST. THOMAS'S HOSPITAL.

### GROWTH OCCUPYING NEARLY HALF OF TONGUE—REMOVAL OF GREATER PART OF TONGUE THROUGH THE MOUTH—RECOVERY.

(Under the care of Mr. WAGSTAFFE.)

JAMES B., a healthy-looking man, fifty years of age, was admitted into St. Thomas's Hospital, under the care of Mr. Wagstaffe, March 30, and gave the following account of his illness:—About twenty-two years ago he had a white pimple on his tongue, almost like a burn; then a few nodules, like warts or small mushrooms. These would last for a week or two, and after a dose of aperient medicine would disappear for a time. The nodules, however, became gradually more permanent and larger, and five years ago he had something done to the tongue; apparently the growth, which was about the size of a small bean, was destroyed by the cautery. The growth, however, recurred, and for the last twelve months had been rather rapidly spreading and becoming very troublesome. The state of the tongue is described as follows:—The right half and the whole of the tip form a curious fleshy mass, red, glazed, and fissured, and covered with bright red hypertrophied papillæ, some of these being single, some compound, some overhanging healthy parts. From the tip, which is wholly affected, to the back of the growth measures about three inches. The rest of the tongue is much fissured and indurated as far back as the finger can reach. The sub-maxillary lymphatic glands are rather enlarged, but possibly only from irritation. No actual ulceration of the surface at any point; no true discharge from it. A portion of overgrowing tissue was examined microscopically by Mr. Wagstaffe, and found to be composed entirely of epithelial elements and birds'-nests in abundance, but it could not be determined how far these appearances invaded the deeper structures. He had been accustomed to use the blowpipe a good deal; had never had syphilis, and there was no history of tumour or cancer in his family.

On April 6 he was put under the influence of chloroform, and Mr. Wagstaffe made an incision from the angle of the mouth backwards on the right side for about an inch, and arrested the bleeding which resulted from it. The tongue was now fully withdrawn by means of thick silk thread which had been carried through the tip. A strong steel skewer was passed from near the tip on the left side through to the base, and out through the wound in the right cheek, so that the whole of the growth was in front of the skewer. Next the wire loop of platinum belonging to the galvanic écraseur was placed round the tongue behind the skewer, and gradually tightened, and the mass burnt off. There was no bleeding during or after this. The wound in the cheek was brought together by a harelip-pin and two silver sutures. The tongue was dressed with lint soaked in sweet oil.

8th.—Some difficulty in swallowing.

9th.—Mouth washed out frequently with solution of peroxide of hydrogen.

13th.—Some hæmorrhage from the tongue, stopped by plugging.

18th.—Has been using a solution of perchloride of iron for cleansing mouth; articulates fairly.

20th.—Went out; wound not quite healed.

July 10.—In perfect comfort; articulates distinctly.

October 10.—No evidence of return of growth.

*Remarks.*—Notwithstanding the microscopical appearances of the portion examined beforehand, Mr. Wagstaffe was induced to remove the growth in the hope of its not being

malignant, for the naked-eye appearances were strongly suggestive of its being papilloma, and a further examination of the growth since removal has confirmed this opinion. It is worthy of notice that the removal of so large a portion of the tongue was effected with a very small incision. The room given by dividing the cheek was sufficient to allow of free exploration of the interior of the mouth, and the operation was simpler than that of section through the jaw, or removal of the tongue below the jaw.

## LONDON HOSPITAL.

### NEW OPERATION FOR EXOSTOSIS BY MR. MAUNDER.

On August 8 we recorded a case in which Mr. Maunder treated a pedunculated exostosis of the femur by subcutaneous fracture. It was impossible to foresee the result, and that which has occurred was probably the one least expected. The growth has become reunited, but the position of the globular head is changed. Before operation it projected outwardly in a marked manner, and could not be handled without causing the girl great pain. It also prevented extension of the leg upon the thigh, and thus rendered the patient comparatively helpless. The head of the tumour is now displaced inwards, is absolutely free from tenderness, and the girl has perfect use of the limb. The object of the operation has therefore been attained.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# Medical Times and Gazette.

SATURDAY, NOVEMBER 7, 1874.


## INSANITARY ENGLAND.

We are thankful to note some signs that give ground for hope that sanitary reform may soon become almost a popular cry, or that it may at least be demanded by so large and powerful a portion of the population that the Government will be encouraged, if not compelled, to take up sanitary legislation with earnestness and energy. We have frequently insisted on and illustrated the destructive evils, physical and moral, arising from overcrowding in dwelling-houses, and it will be remembered that this subject was fruitfully forced on the attention of the House of Lords last session, though the action taken then in the matter applied only to the metropolis. We are glad to see that the Bishop of Exeter and Lords Devon and Fortescue have just taken a public opportunity, afforded by the opening of a block of tenements erected at Exeter by the Improved Industrial Dwellings Society, to speak of the necessity of supplying the poor with well-constructed, wholesome, and therefore attractive homes. Earl Fortescue, perhaps, hardly recognised sufficiently the overcrowding that may certainly be found in some parts in agricultural districts, but on the extent and evils of overcrowding in towns he spoke well and forcibly, pithily summing the matter up in a few lines:—"Overcrowding is dangerous and expensive. No large population can lodge like pigs and live like Christians. It is expensive, because preventable disease means preventable widowhood, orphanage, and pauperism; and it is dangerous, because preventable indecent overcrowding means demoralisation, which leads to crime." Teaching like this can hardly fail to produce good fruits.

Then, politics still slumbering, the daily press seems more inclined than heretofore to practically recognise the importance of public health. Our powerful contemporary the *Times* lately opened its columns to communications about sewer-gas, and has given much space during the last few days to reports and letters on conditions affecting the public health. These communications illustrate in the most telling manner what we last week said of the insanitary state of England, and must command attention, and something more than "consideration," from those who, as they wield the powers of Government, are in a degree responsible for the wasted lives of the nation. Scarlet fever is epidemic; and compulsory education is at present one of the means by which this and other contagious diseases are spread. What are the powers by which this spread of preventable disease can be legally stayed? and who is practically responsible for setting those powers in action? Inspectors from the Local Government Board are visiting Lewes and Over Darwen, and "reporting" and "advising" on outbreaks of typhoid fever; and the special reporter of the *Times* has described a state of things at Wiveliscombe, in Somersetshire, almost as horrible and inexcusable as that at Over Darwen, where, as a clergyman of the town says, the people "sit amid, walk in, and breathe their own excreta." The description given by Mr. Moore, the clergyman, of the "defective sanitary arrangements" in Over Darwen, would undoubtedly be set down as a gross exaggeration, were it not, fortunately for the impression it ought to produce on the public, more than corroborated by the report of Dr. Stephens, the Inspector of the Local Government Board. Over Darwen contains about 25,000 inhabitants, and when Mr. Moore wrote, on October 30, there were, according to him, "more than 1500 cases of typhoid fever" in the town; and even Dr. Stephens, speaking with greater caution, allowed that "there were then present, at the lowest computation that could be made, 1200 cases," while forty-four deaths had occurred in the three weeks following October 8. The condition —the normal condition, we suppose we must call it—of Over Darwen makes it a wonder that human beings can ever live and thrive there, rather than that there is now and then a fearful outbreak of typhoid fever. There are in the place "over 150 streets still not sewered and paved, though the houses have been built one, two, and three years"; and "we are cursed," Mr. Moore says, "with the midden and cesspool system, and everywhere you see ash-pits running over with ashes, refuse, and decayed vegetable and animal matter; and, worse still, the cesspools of the privies (which, in spite of repeated applications and complaints, are unemptied for months together, and in one case I found for a whole year) are mostly built of random walling, so that the contents percolate through the foundations, and saturate the soil for yards around; and after heavy rains these cesspools are filled to overflowing, and the excreta are washed out into the yards of the houses and into the back lanes." Dr. Stephens stated to the Darwen Local Board that he could not find words to convey an idea of

the bad sanitary state of the town; that there were "acres of uncovered excrement"; that in one part "there were alleys composed of cesspools insufficiently covered, and with houses on either side of them. In the back yards of the houses there was no convenience whatever for the storage of ashes and other refuse. Between the common road and back yards they might walk sixty yards, and find nothing but ash-pit, cesspool, ash-pit, cesspool, the whole length of the way. In other places there were worse nuisances than these." After any heavy fall of rain the sewer-gases are forced through the untrapped sinks into the dwelling-houses, and the sewage leaks into the imperfect water-pipes, and contaminates the whole water-supply; so that, as the *Times* remarks, when Mr. Moore describes the population as "sitting amid, walking in, and breathing their own excreta," the only inaccuracy in the description is that he does not add "drinking." The whole place is well described by Dr. Stephens as "a hotbed of the most dreadful sort," and the only marvel is "that there should be inhabitants left in Oven Darwen to supply victims to fever." Mr. Moore remarks that "it would indeed do much to make the nature and causes of this disease (typhoid fever) better known if it were systematically called by medical men 'cesspool fever' or 'sewer-gas fever.'" But does not the history of these places and the epidemics of typhoid that visit them go a very long way to prove the theory that sewage filth alone will not cause typhoid, but that typhoid excreta must be added to it? This, however, by the way. There can be no question as to the constant injury to health of such a state of things as obtains at Over Darwen, and to a less appalling extent in so many other places, or as to the frightful danger always hanging over such hotbeds that some added spark of contagion will cause a terrible outbreak of disease and death. We hope the *Times* is right in asserting that "public" opinion is now sufficiently instructed to pronounce at once that such a state of things as prevails in Over Darwen and Wiveliscombe is utterly inexcusable, and is sufficient to explain any amount of disease"; for, if this is the case, Mr. Disraeli's Government must legislate so as to insure and compel amendment. It is to be remarked that in these places, as in other places where the grossest sanitary defects are allowed still to exist, there are local boards of health and official inspectors of nuisances, and that many of them have been visited by inspectors from the Local Government Board, who have inspected, reported, and advised. But ought that to be all that that Board can do? Mr. Moore, writing "in a tone of indignant despair at the barbarous waste of health and life" in Over Darwen, demands "more centralisation, arming the departments of Government with greater compulsory powers." He says:—

"We do not permit a district to do without schools and education because it selfishly and barbarously prefers ignorance and low rates to education and the price of it. Why, then, should we allow a community to poison itself or others for the sake of saving its own pockets? The Local Board that kills a person or family by permitting the existence of a nuisance which poisons the air they have to breathe, commits murder as really as if it put poison, or allowed someone else to put poison, into the water they have to drink. In how many towns in this ill-governed country besides Darwen is this wholesale kind of murder being committed? and how long are we going to submit quietly to such an abuse of power?"

But the *Times* observes that "the people who compose local boards have been born and brought up amid all the foul air and water of their town or village. They have survived it, and they look upon the occasional epidemics which rage among them as the inevitable casualties of existence"; and therefore we must be tender in our dealings with them; we must "place our chief hope in the influence of publicity, and in the spread of intelligence in all districts"; and it holds that "if all who appreciate sanitary evils will combine to expose and repress them, a power already exists, which, however it may need to be increased, will compel local authorities to do their duty." It may be replied to this that we have not waited for the influence of publicity and the spread of intelligence to insure the supply of education; and we fear that if we wait till they compel sufficient sanitary reform it will be at the cost of a fearful waste of health and life. Moreover, it is something new to find lack of intelligence and age-honoured habit and custom adduced to excuse or palliate any sin of omission or commission in our manufacturing districts. We could understand excuses being offered—half in pity and half in scorn—for the state of Wiveliscombe, on account of the "slow-moving bucolic mind." We are used to that sort of thing; but Over Darwen is only four miles from Blackburn, "in the prosperous and vigorous county of Lancashire," and is a town of "rapid growth." Is lack of intelligence there to account for the 150 streets that during the last two or three years have been built without sewers? Local Government Boards are fully empowered under the Sanitary Laws Amendment Act to enforce their orders. But what power is to compel the local boards to do their duty? The *Times* says, trust in the influence of publicity and in the spread of intelligence. It remains to be seen whether Mr. Disraeli agrees with the *Times*.

## THE GLASGOW MEDICAL SCHOOL.

The opening of the present session at Glasgow University has been characterised by an event of great importance to the Medical School, which forms an important faculty of the College. The new Western Infirmary was formally opened with all the pomp and circumstance which become the inauguration of an institution which must be of great importance to the Medical School, to the west-end of Glasgow, and to the townships of Partick and Govan, which, by the marked increase of their own population, and the rapid extension of Glasgow towards them, have almost come to be part of the great city itself. Considering the great national importance of Glasgow as a city, and the urgent wants of all rapidly growing towns for comprehensive systems of medical charity, the capital of the West of Scotland has hitherto been insufficiently supplied with infirmary accommodation. The removal of the Medical School to the extreme west-end rendered it necessary also that some provision should be made in the neighbourhood for the teaching of clinical medicine and surgery. Those who know the neighbourhood of Gilmore-hill will at once perceive how well adapted it is for the erection of a large medical hospital. From its immediate proximity to the city of Glasgow, it offers all the advantages of convenience, and from the nature of its exposure and elevation it promises to afford the inherent salubrity which ought to be the first element of all public medical treatment. When completed, the new Infirmary will contain 350 beds. The grounds cover about twelve acres, and the ultimate cost, far exceeding the original estimates, will be about £100,000. The University Subscription Committee have given liberally towards the Infirmary scheme, and the public are asked to make the sum up to the necessary amount. When the Glasgow people have already shown how handsomely they can respond to such calls by doing so much in the way of supplying the magnificent new University building, there can be little doubt that they will supplement their former subscriptions to the extent of the outstanding balance of £100,000. At the recent meeting of the Social Science Congress, the Glasgow people repudiated the hint that their city was not the second in the empire, and we hope that by their subscriptions to the new Infirmary they will show that, though the aggregation of small towns around large centres like Liverpool and Manchester may make relative population a difficult problem to settle, it is easy to demon-

strate that they are second to none in liberality to public institutions. The inhabitants of Glasgow also may be more liberal in their subscriptions for the extension of hospital accommodation, when they remember that present generosity may be the means of averting future calamity. The reports of the Social Science Congress must have taught them how much the health of the rich is directly related to the health of the poor, and how disease unchecked passes by rapid transfusion amongst contemporaries and descendants; and when they remember the great prosperity which they have so long enjoyed, and of which they so frequently boast, they should be led to exercise freely a liberality which will be of direct benefit to the poor and of indirect service to the whole community. Glasgow people are justified in referring with pride to many of their recent public schemes. Their water-supply and University are projects for which succeeding generations will thank the present; and the satisfactory completion of the new infirmary will be another lasting benefit which will show that, though Glasgow people may take the advice of Nicol Jarvie and look to their ledgers first, they are not backward in subscribing for philanthropic projects. The rapid growth of large towns absolutely necessitates the extension of charitable medical relief. In times of immunity from virulent disease such extension may appear to be a benevolent exercise of pure charity; but the presence of infectious maladies and hostile atmospheric conditions shows how necessary it is, for the good of a whole community, that the lower orders should not be called upon during their periods of illness to struggle with both disease and destitution. That an additional hospital was required in Glasgow for simple charitable purposes is shown by the large numbers who have come for assistance since the Hospital was opened to out-door patients. And it must be only too evident to practical people like the inhabitants of Glasgow, that without a well-appointed and liberally supported hospital a medical school cannot exist in such a manner as to maintain a good reputation and produce men of sound professional knowledge.

At present the new Glasgow Infirmary will have about 200 beds. Of the eight large wards ready for use, one-half will be assigned to medical, and one-half to surgical cases. The wards will contain fourteen and eighteen beds each, with a breathing space of 1575 cubic feet per bed. There will be a ward for skin diseases, to which medicated baths of all kinds will be attached. The surgical theatre will be seated for 300 students. Dr. W. T. Gardiner and Dr. McCall Anderson have been appointed physicians and clinical lecturers on medicine; Dr. G. H. B. McLeod and Dr. George Buchanan have been selected as surgeons and lecturers on clinical surgery. The appointments made up to this time are to a certain extent subservient to the use of the University, of which the gentlemen named are professors. It is not ultimately intended, however, to limit the appointments to the medical and surgical staff of the University.

The only point on which there appears to be disagreement amongst the subscribers to the Western Infirmary is that which relates to the admission of patients with or without orders. At present, but, it is understood, temporarily, patients are to be treated without a subscriber's line, but an opinion has been pretty generally expressed that though such a provision would be apparently sound, yet it might affect the interests both of the new institution and the Royal Infirmary. It would tend, it is said, to make the Western Infirmary more of a charitable institution than is at present desired. Experiment will be the best guide which the subscribers can follow, and their present elastic arrangements will easily admit of modification. In the draft of the constitution of the Infirmary, provision is made for the subsequent erection of a sick children's hospital in connexion with the new building.

On the same day as that on which the Western Infirmary was formally opened, the medical classes at the University of Glasgow resumed their sittings. Professor P. A. Simpson addressed the students, and spoke mainly on the medical education of women. He was opposed to the admission of women into our profession, but repudiated the taunt that medical men excluded women on merely selfish grounds, by pointing out that there was always a desire to increase the number of male students, which could not be reconciled with such an accusation. Dr. Simpson especially deprecated mixed education, but admitted, of course, that, with regard to matters purely affecting women themselves, they may be allowed to form an independent opinion, and find by experience what the practical adoption of it will lead them to.

## THE LATE DR. LANKESTER AND MEDICAL CORONERS.

Our obituary this week contains the name of Dr. Edwin Lankester. From his prominent position as Coroner for Middlesex, as a lecturer on various scientific subjects, and as the author of many works on botany and food, he was entitled to be regarded as "a man of the time." With great energy of character and an unusual capacity for work, he made up for whatever disadvantages he laboured under from a somewhat scanty early education. Without any remarkable profundity of knowledge, and an irregular "system" of medical labour, he succeeded, by a happy readiness of expression, a good delivery, and a fine presence, to obtain a great reputation as a popular lecturer. The amount of work which he performed in the various offices he filled seems prodigious, and so it is under any circumstances in which we may recognise it. We may assert that he died prematurely from overwork and anxiety. He was a powerfully-built man, with a capacious brain, and, with a wiser mode of exercising his powers, would not have succumbed at three-score years. He had no "method" in the employment of his energies, and frequently exhausted them by working against time. Like his predecessor in the office of Coroner for Middlesex, he had too many irons in the fire; to this may be added the causes which broke him down, many difficulties connected with the office of coroner, and the great expenditure which he incurred in obtaining that appointment. The unjust persecution to which he was subjected by some of the magistrates of Middlesex would not fail to add seriously to his troubles. He has gone now, and it is only due to his memory to affirm, as we did on many occasions during his life, that the attacks upon him by the magistrates were most unjust and uncalled for. He acted on the righteous principle that if a coroner's inquest is to be worthy of the name, it must embrace inquiries into the real causes of death. How can these be arrived at, in a vast majority of cases, without a post-mortem examination? We can only say that without it the inquiry would be "a mockery, a delusion, and a snare." Better to abolish the office of coroner *in toto* than to restrict that officer in his selection of cases in which he considered, in the cause of justice, that an after-death examination was necessary. It is highly probable that, if any contest should arise in the election of the future Coroner for Central Middlesex, a cry will be raised against a medical candidate, on the ground that he will institute unnecessary post-mortem examinations. A counter-cry might be efficiently brought forward against the election of a lawyer, that he was incapable of forming an opinion as to the necessity or non-necessity of an examination of the body upon which the inquest was to be held. As to the "rules of evidence," they are so few and simple that any man of common sense might master them by an hour's study. Not so, however, are the vital questions to be decided as to the real cause of death. A medical coroner is the only person capable of forming a

judgment and properly addressing a jury on a question so delicate and difficult. It should be remembered in this controversy that the coroner, be he medical or be he legal, has no interest whatever in ordering a post-mortem examination. It is his simple duty to arrive at the nearest amount of certainty obtainable of the *exact* cause of death. It would be a clear neglect of duty for any coroner to withhold from a jury any evidence which would enable them to find a correct verdict.

## THE WEEK.

### TOPICS OF THE DAY.

In a letter to the editor of the *Times*, Dr. Lionel Beale, noticing that the writer of a leading article in that journal "appears to consider that the precise meaning of Dr. Tyndall's declaration that he 'discerned in matter the promise and potency of every form and quality of life' is doubtful," appeals to Dr. Tyndall to explain publicly what he does mean by the statement. Dr. Beale quotes the following assertions from Professor Tyndall:—"The animal body is just as much the product of molecular force as the stalk and ear of corn, or as the crystal of salt or sugar"; "Molecular force is the 'agency' by which both plants and animals are built up"; "The formation of a crystal, a plant, or an animal is a purely mechanical problem"; "Not alone the mechanism of the human body, but that of the human mind itself—emotion, intellect, will, and all their phenomena,—were once latent in a fiery cloud"; "I discern in matter the promise and potency of all terrestrial life"; and then, remarking himself that "so far from all the phenomena of animals and men being explained by physics, it is a well-known fact that the changes which occasion and accompany the growth of a blade of grass or the sprouting of a single yeast-particle cannot be adequately accounted for by physics and chemistry," he begs to be permitted, without being considered intolerant, "to urge that Dr. Tyndall's position as a public teacher, and the authority he wields as President of the British Association, render it imperative not only that he should at once more accurately define the views he does entertain upon the momentous and far-reaching scientific question he has deliberately, so many times and in so many ways, forced into public notice, but that it is a duty he owes to science to state more clearly than he has yet done the inferences in favour of his doctrine which, in his opinion, are supported by facts and observations, and separate these from those purely conjectural propositions which must be admitted to be altogether beyond the limits of experimental science." Dr. Beale's well-earned position as a public teacher of physiology, and his eminence as a man of science, more than justify him in making this appeal to Professor Tyndall. In his celebrated address at Belfast, the learned Professor says—"The 'materialism' here professed may be vastly different from what you suppose"; and since then he has, we think, not complained, but stated that he has not been understood. May we hope that he will answer the appeal now made, and explain himself? Noticing Professor Tyndall's remarkable preface to his published address, Dr. Beale observes—"Dr. Tyndall remarks that the doctrine of 'Material Atheism' does not commend itself to his mind 'in hours of clearness and vigour,' and admits 'that in the presence of stronger and healthier thought it ever dissolves and disappears' (!) but he does not intimate whether, under the same happy conditions, his belief in the potency of matter only and its forces to form all life also dissolves and disappears."

An inquest, resulting in a very unsatisfactory verdict, was held at Romford on Tuesday, relative to the deaths of four children, whose ages varied from nineteen months to two years and one month, who had died from poison. Mrs. Copsey, the mother of one of the deceased, stated that her child suffered from teething, and she sent to the shop of Mr. Lasham, a chemist, at Romford, for a powder, which was put in the child's bottle of milk-and-water. On Thursday morning, about two o'clock, the child appeared very restless, and shortly afterwards fell into a stupor, and expired about two o'clock in the afternoon. Evidence was given as to the other deceased children having taken powders purchased at the same shop. Mr. C. Potter, surgeon, of Romford, had made a post-mortem examination of the body of Copsey. The appearances, he said, pointed to death being caused by opium. The assistant to Mr. Lasham said he remembered selling a teething powder for the child Copsey. The powder consisted of calomel, Dover's powder, and compound powder of tragacanth. There would be one grain of calomel in each five grains of powder, one grain and a half of Dover's powder, one grain and a half of compound powder of tragacanth. They were made up on the premises. The police inspector deposed that a portion of one of the powders sold to Mrs. Copsey had been sent to Dr. Medlock for analysis. There was only a trifle under a grain of it. Dr. Medlock examined it microscopically and chemically, and found it to contain calomel; the quantity was too small to be determined. He examined it specially for morphia. There was calomel, and some organic compound. He could not say positively that morphia or any constituent of opium was present, as the quantity he had for examination was so small. The reaction led him to infer the presence of opium. In answer to a question, the witness said he could not state whether or not three grains of such a compound would produce death. Dr. Potter stated, in answer to a question, that he thought a grain of calomel, one grain of Dover's powder, and one grain of compound tragacanth would be an overdose for a child so young as the deceased Copsey, though he did not think it would prove fatal. Mr. Lasham, jun., said he did not know who mixed the powders. Sometimes the powders were mixed by himself, and at times by the assistant. Similar evidence having been adduced as to the other deceased children, the coroner summed up, and the jury found the following verdict:—"That the four deceased children died from narcotic poison, such poison being contained in powders purchased at Mr. Lasham's establishment, but there was no evidence to show how or by whom the powders were prepared." There are some points in this inquiry worthy of comment. In the first place, it was highly improper and dangerous on the part of a druggist to prepare and sell powders containing the ingredients mentioned by the assistant, inasmuch as the dose was unmistakably poisonous to very young children. Secondly, it ought to have been ascertainable who was the preparer of the poisonous compound. Thirdly, it is reasonable to suppose that other powders were in existence of a similar composition; these should have been submitted to examination. There is good reason to believe that this is not a solitary instance in which dangerous doses of opium are administered, in the form of a powder or otherwise, to children suffering from the effects of dentition. It should be remembered that young children are peculiarly obnoxious to the effects of opium in any form, and it is invariably administered to them by the medical practitioner with the greatest care and caution.

The total number of deaths in London last week was 1368, which was 149 below the average. The deaths from zymotic diseases rose from 179 in the previous week to 217, of which 128 were fatal cases of scarlet fever, forty-three of other forms of fever, and twelve of diarrhœa. The last week's deaths from scarlet fever were the highest number recorded in any week since 1870. The disease was most prevalent in Hackney, Clerkenwell, Mile-end Old Town, Bow, Poplar, and Brixton.

As a sequel to the proceedings which we noticed in the *Medical Times and Gazette* of the 24th ult., respecting the

appointment of Dr. Gunn to an office in the Catholic University, we quote the following from a contemporary:—

"The opening of the medical session of the Catholic University took place yesterday afternoon in the School of Medicine, Cecilia-street, Dublin. The inaugural address was delivered by Professor Hayden, Dean of the Faculty. The students, who were crowded together in the gallery seats of the lecture theatre, indulged in rather noisy demonstrations. When Dr. Hayden came forward he was greeted with loud cries of 'Answer the petition!' 'What about the Queen's University?' The Rector of the University (Dr. Woodlock), who came into the hall a few minutes before Dr. Hayden, was received with mingled cheers and hisses, amongst which were heard loud cries of 'Hurrah for Queen's University.' At the conclusion of the lecture the students assembled in large numbers in the hall, and renewed the scene which had taken place in the lecture theatre. One of them turned round to his colleagues, and in a loud voice said, 'All who are of opinion that the Catholic University School is a sham will say "Aye."' In the chorus of replies the 'ayes' seemed to have the majority, but some hisses were also heard. Another person cried out, 'Hurrah for the Queen's University,' and subsequently a cheer was given for the *Morning Mail*. As each of the professors passed out of the building he was cheered and hissed according to the humour of the students."

It is to be regretted that any dissension should arise on a question so important to the interests of the University. Hitherto we have received no answer to the question we put on the 24th ult.; we therefore retain the opinion we then expressed on the policy of the appointment in question.

At the meeting of the London School Board on Wednesday week, the Rev. John Rodgers stated, in reply to a question, that every precaution had been taken by the School Management Committee to keep out of the schools all children who lived in houses where there was any case of scarlet fever. Moreover, by the action of the visitors, the Committee hoped to be able to prevent children who had the disease from coming to the schools while there was danger; and besides, by the use of disinfectants and disinfecting soap, the Committee hoped to keep the possibility of the spread of the disease at the lowest. The Committee were empowered, by a resolution passed by the Board, to take all measures they thought fit under any circumstances which might arise.

Recent disclosures before the Coroner for West Kent indicate in a striking manner the necessity for registering all "still-born" children. An inquest was held on a number of bones of an infant found under suspicious circumstances in the soil of a closet near St. Paul's-churchyard, Deptford. It was proved, in evidence, that the bones in question were those of a child of a Mrs. Biram, and the verdict was to that effect, with the addition "that it had been found on October 10, stillborn." Mrs. Biram proved that she was confined on September 14 of a stillborn female child. The undertaker came to fetch it. She saw him put the body into a wooden box made in the shape of a coffin. She gave her mother five shillings, which was paid to him in her presence. From the evidence of the undertaker, it appeared that the part of the business relating to "stillborn" children was conducted in a curious manner. They took stillborn children to bury, but they did not enter them, and there was no entry of the present one. They kept no account of stillborn children; sometimes they had not one for six months, and there might be three in a week. Surely there is sufficient in these facts alone, leaving out of the question others of less moment, to show the imperative necessity of registering all children who are buried, or supposed to be buried, as in the present case. The absence of such a precautionary measure opens out a wide field of crime.

At the annual meeting of the King and Queen's College of Physicians, Ireland, held on October 19, Surgeon-Major T. M. Bleckley, M.A., M.D., C.B., Army Medical Department, was unanimously elected a Fellow of the College, *causâ honoris*, in recognition of his services as senior medical officer of H.M. (hospital) ship *Victor Emmanuel* in the late Ashantee campaign.

We are sure that our readers will hear with gladness that Mr. Stone, the well-known and highly esteemed Registrar of the College of Surgeons, has been made a "Corresponding Member of the Municipal Museum of Boulogne." The notice of this honour was, we believe, conveyed in a most courteous note from the present Mayor of Boulogne, M. Hugnet.

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### THE CORONERSHIP FOR CENTRAL MIDDLESEX.

Already there are in the field for the office left vacant by the death of Dr. Lankester five candidates, two of whom are solicitors, and three are medical men. The former are both undoubtedly able men, and one of them, Mr. Langham, has well done much public work; but we do not propose to discuss their qualifications for the vacant office, for we hold it to be an indisputable principle that a coroner should be a medical man rather than a lawyer. The primary and chief work of the coroner's inquest is to discover the *cause* of death in any given case,—to find out *what*, not *who*, if anyone, brought it about; the latter question is only incidental to the inquiry. And that the primary object may be carried out as fully and accurately as possible, the inquiry should be presided over and conducted by a man skilled in the art and science of medicine. Such a verdict as "Died by the visitation of God" is a disgrace to the science and knowledge of the day; nor should such verdicts as "Died from natural causes," "Died from heart disease," and "Died from apoplexy," be tolerated unless founded on post-mortem examination or on definite and positive medical evidence. And further, we fearlessly assert that only a medical coroner can in many cases of death fully judge of the need of exact medical evidence, or appreciate the circumstances that point to a suspicion of foul play. But it is evident that the old contest between medicine and law will be again and keenly fought; and we trust that when the day of election comes there will be only one medical candidate in the lists, so that there may be no division of interest in the medical camp. The three medical candidates at present before the electors are—Dr. Diplock, Mr. Mortimer Granville, and Dr. Hardwicke. We wish to speak with all due respect to the candidature of the first two of these gentlemen, but we must observe, with regard to Dr. Diplock, that we see no good reason for transferring him from the coronership he now holds to that for Central Middlesex; and with regard to Mr. Mortimer Granville, that he appears to be unknown as a practitioner of medicine, or as an expert in medical jurisprudence or chemistry, and that as a coroner he is an untried man. The third candidate, Dr. Hardwicke, has done good service as Deputy Coroner for twelve years, and has therefore ample experience of the requirements and duties of the office he seeks, and has established a claim to the support of his professional brethren.

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### THE ANNUAL REPORT ON MILITARY PRISONS.

The annual report of the Inspector-General of Military Prisons for the past year has just been made public. In the prisons for military offenders in Great Britain and Ireland there is accommodation for 1192 persons—1141 for separation, and 51 for association. The number of sentences was lower than in the last two years by 1025 and 878 respectively. The average strength being 95,768, gave a proportion of 8·7 per cent. as compared with 9·2 during the preceding years. Recent arrangements had removed the anomaly pointed out in the last report—that soldiers who found the service distasteful, or wished for any cause to leave it, had no legitimate and practical way of doing so, but were kept to their engagements by fear of the consequences of breaking them—by giving such men facilities for leaving the service after three years.

The discontinuance of the practice of branding soldiers has no doubt tended to facilitate the desertion of men, and removes one of the most easy methods of detecting them when they present themselves again for enlistment.

Lieutenant-Colonel Du Cane observes that no doubt considerable tact is necessary in managing young soldiers, and the want of it may often lead to irritation, which tends to the commission of crimes.

Referring to the length of service of the men committed during the year, the Inspector-General states that a large proportion of the offences were committed by men in the earliest part of their service, while being broken in to the restraints of military discipline, which required of those subjected to it a higher standard of conduct and behaviour than is customary among the class from whom recruits are principally drawn, and which on that account, as well as from the necessity of enforcing strict and unquestioning obedience, was likely to be very trying and irksome, most especially to such unsettled characters as the recruiting sergeants were likely to pick up.

### PROVINCIAL MEDICAL SCHOOLS.

The official return of the number of gentlemen pursuing their professional studies at the eight recognised provincial hospitals has just been made to Dr. J. W. Ogle, the Government inspector of the anatomical schools in connexion with those hospitals, from which we learn that Owens College, Manchester, still takes the lead with 142 students, against 138 last year. The figures for the several hospitals are as follows:—

| | 1874. | 1873. |
|---|---|---|
| Manchester, Owens College | 142 | 138 |
| Birmingham, Queen's College | 72 | 79 |
| Liverpool Infirmary | 72 | 84 |
| Leeds School of Medicine | 45 | 46 |
| Cambridge University School | 44 | 40 |
| Newcastle-upon-Tyne College of Medicine | 37 | 34 |
| Bristol Old Park Medical School | 26 | 24 |
| Sheffield Medical Institution | 15 | 10 |
| Totals | 453 | 455 |

It will be seen that there is an increase in the number of students at the Manchester, Cambridge, Newcastle-upon-Tyne, Bristol, and Sheffield schools; and a decrease at the large schools of Birmingham, Liverpool, and Leeds. The gross diminution at the united schools, however, is only two over those of last year, as will be seen above. It is a little remarkable that there should be such an increase in the metropolitan schools as 1745 against 1650 last year.

The following comparative table will no doubt be read with considerable interest, not only by the metropolitan and provincial teachers, but by the profession and public generally. It has been compiled with great care, and may be relied on as a fairly correct statement of the number of students in the metropolitan and provincial schools respectively during the past decade:—

| | Metropolitan. | Provincial. | Totals. |
|---|---|---|---|
| 1864 | 995 | 247 | 1,242 |
| 1865 | 1,013 | 249 | 1,262 |
| 1866 | 1,027 | 258 | 1,285 |
| 1867 | 1,125 | 257 | 1,382 |
| 1868 | 1,194 | 284 | 1,478 |
| 1869 | 1,241 | 330 | 1,571 |
| 1870 | 1,298 | 357 | 1,655 |
| 1871 | 1,475 | 368 | 1,843 |
| 1872 | 1,496 | 402 | 1,898 |
| 1873 | 1,650 | 455 | 2,105 |
| 1874 | 1,745 | 453 | 2,198 |

It will therefore be seen that at our eleven recognised metropolitan schools there is an increase of ninety-five students over the number of last year, including dental students.

### RARE CASES OF CONGENITAL SYPHILIS.

Under this title Dr. L. D. Bulkley describes two cases of dactylitis syphilitica, a case of syphilitic pemphigus, and a case of syphilitic disease of the lung (*New York Medical Journal*, May, 1874). In the first two patients the enlargement of one or more phalanges of the hands and feet, and other features of the disease, were well marked; but the history of syphilis in one was not positively certain. The case of pemphigus is remarkable, inasmuch as the child lived twelve months, although the feet were sore and raw at birth, and became speedily covered with bullæ. The last child was of syphilitic parents, and died with pulmonary and tracheal symptoms after five weeks' illness, but no post-mortem examination was made.

### AWARD OF THE QUEEN OF PRUSSIA'S PRIZE.

We have received for publication the following official notice from the Central Committee of the German Societies for Aid to the Sick and Wounded in War:—

"For the prize which her Majesty the German Empress and Queen of Prussia had instituted on the occasion of the Universal Exhibition at Vienna for the best handbook on technical war-surgery, five works (four German and one English) entered into competition.

"The gentlemen appointed as judges, Professors Billroth, of Vienna, Baron von Langenbeck, of Berlin, and Socin, of Basle, have carefully examined these competing works, and, after a mutual verbal discussion, have resolved that three of these works—namely, those bearing the mottoes 'Kurz und Cündig,' 'Wissen ist Macht,' and 'Soldier-Surgeon,' were worthy of being most highly mentioned.

"On the motion of the above named prize-judges her Majesty the German Empress and Queen of Prussia has been pleased to order that the prize of 2000 thalers should be divided, and that 1000 thalers should be awarded to the work bearing the motto 'Kurz und Cündig,' because it best meets the intention for which the competition was established, whilst a prize of 500 thalers each is to be awarded to the works bearing the mottoes 'Soldier-Surgeon' and 'Wissen ist Macht' because they contain valuable material for a handbook of war-surgery.

"At a meeting of the Central Committee, which took place yesterday, the opening of the three sealed envelopes was proceeded with. 1. The envelope bearing the motto "Kurz und Cündig' contained the name of Dr. Frederick Esmarch, Professor at Kiel, as author. 2. The envelope bearing the motto 'Soldier-Surgeon' bore the name of Surgeon-Major G. A. Porter, Assistant-Professor of Military Surgery, Royal Victoria Hospital, Netley, England. 3. The envelope bearing the motto 'Wissen ist Macht' contained the name of Dr. Joseph Landsberger, of Posen.

"The authors of the works to which no prize was awarded are requested to reclaim these as early as possible.

"In consequence of certain circumstances the jurors have not yet been able to pronounce their decision on the second prize instituted by her Majesty the Queen—viz., the best essay on the Geneva Convention. "Von Holleben.

"Berlin, October 18."

Although Surgeon-Major Porter does not gain the first place in this international competition, as was reported by our contemporaries last week, we heartily congratulate him on the honourable distinction he has gained; it is a honour to himself and the British School of Military Surgery, and a military surgeon may well be proud of standing only not first in competition with Professor Esmarch.

### NORFOLK AND NORWICH HOSPITAL.

The report of the Board of Management, which was received and adopted at the quarterly meeting held on the 24th ult., contained some important paragraphs referring to the sanitary condition of the Hospital, and to its proposed alteration and enlargement. The question of "utilising property lately acquired on the south side of the hospital," had been referred to a committee, of which the entire medical staff are members; and the report stated that this committee had "entered upon a careful examination of the defects of accommodation, sanitary condition, and arrangement in the present buildings, and the best mode of supplying them; but the subject is one of such

serious importance, and beset with so much of complication and difficulty, that it is impossible to do more at present than report the unanimous opinion of the medical staff, that to meet fairly the requirements of the district it is necessary to increase the present accommodation—which has been reduced from 150 to 120 beds, on the recommendation of the medical staff, and for hygienic reasons—to 200, of which 150 only should be in use at one time." The time and attention of the medical members of the committee had been so absorbed by the meeting of the British Medical Association that it had not been possible to prepare a full report, but the committee hope to be able to present such a report to the Board at their next meeting; and the Board gave the committee authority, in the meantime, "to call in and consult some recognised professional authority on hospital construction." The report of the Board of Management also contained a reference to the "paper on the hygienic condition of the hospital, read at the meeting of the British Medical Association," and stated that—"The Board have at all times been anxious to carry out every recommendation of the medical staff for the improvement of the sanitary condition of the hospital, and hope ere long to obtain from them an expression of opinion on the matters contained in that paper."

The following resolution, proposed by Mr. Cadge, was also unanimously adopted, and a committee was appointed to carry it out :—

"That a committee be appointed to inquire and report upon the necessity of appointing a superintendent of hospital nurses, and whether a combined system of hospital, private, and district nursing could be advantageously adopted in this, as it has been in other large towns."

### MIDDLESEX HOSPITAL MEDICAL SOCIETY.

The first meeting of the session was held in the board-room of the Hospital on Thursday, the 29th ult., the majority of the students and several members of the staff being present. The President, Mr. Harry Lucas, the Resident Medical Officer, in a few introductory remarks congratulated the Society upon the large number of excellent papers which have been read before it during the last few years. Several of those of last year were of very considerable merit, and gave the examiners a great deal of trouble to adjudicate upon them in awarding the prizes. What was wanted was a little more freedom and vigour in discussing the papers, and this was urged upon the members of the Society as a sure means of increasing their knowledge, as an excellent method of self-education, and a good way of learning how to form clear ideas and how to express them fluently. The business of the meeting commenced by the exhibition of the parts removed from a woman in South Wales who had died from the effects of tubal gestation. Remarks were made upon this by Mr. Knox Davis, who also referred to a case of tubarian gestation which had occurred in the wards of the hospital under Dr. Hall Davis in July last. Mr. Humphry, M.A., M.B. Camb., then read an excellent paper, based upon the notes of several cases recently observed by him, "On Acute Scarlatinal Nephritis," in which he touched upon most of the clinical and pathological features of interest in the disease, and commented especially upon the doubling of the first sound of the heart which has been noticed in so many of the cases, and to which attention has been lately drawn by Dr. Sibson. Mr. David Hepburn then detailed the notes of a case of sudden and intractable closure of the jaw in a young woman. The impossibility of opening the mouth came on immediately after biting a hard crust, when she heard something snap. Nothing could be detected about the parts to account for this, but there was a discharge from the ear, which had existed some time, on the side opposite to that on which the crust had been bitten. He asked for an explanation of the condition, but no satisfactory answer was given.

### SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The ordinary general meeting was held in the library of the Royal Medical and Chirurgical Society on Friday last. The President, Sir George Burrows, Bart., was in the chair. After the usual preliminary business of such meetings the half-yearly statement of accounts was read, showing receipts for the half-year amounting to £1575 19s. 7d., and expenditure £1388 9s. 3d. A sum of £1133 10s. had been distributed to fifty-eight widows, £119 to twenty-four children, and £24 10s. from the Copeland Fund to four children variously affected and totally unable to support themselves. A special grant of £10 had been made at the annual meeting to the grown-up daughter of a deceased member. The expenses of the half-year were £101 19s. 3d. On the recommendation of the Court of Directors, William Tiffin Iliff, Esq., was elected a vice-president, in the place of John Miles, Esq., deceased. A vote of thanks to the chairman closed the meeting.

### SURGICAL SOCIETY OF IRELAND.

The election of Council for the ensuing session took place in the Jacob Library, Royal College of Surgeons, Stephen's-green, Dublin, on the afternoon of Monday last. Considerable interest attached to the proceedings, as this was the first election of Council under the new regulations. By these the right to vote for councillors is extended to such Fellows of the King and Queen's College of Physicians as are also members of the Society, and to all Fellows of the Royal College of Surgeons, they being *ipso facto* members of the Society. The following was the result of the election, the names being arranged in alphabetical order :—Edward H. Bennett, Charles Benson, Philip Bevau, Richard G. Butcher, William Colles, Anthony Corley, Henry Gray Croly, Edward Hamilton, J. Stannus Hughes, Hans Irvine, Rawdon Macnamara, Edward D. Mapother, Humphrey Minchin, John Morgan, George H. Porter, B. Wills Richardson, M. Harry Stapleton, William Stokes, Joliffe Tufnell, Albert Walsh, and James H. Wharton. *President :* Joliffe Tufnell. *Vice-President :* Edward Hamilton. *Honorary Secretaries :* Humphrey Minchin and Benjamin Wills Richardson.

### THE MIDDLESEX HOSPITAL ENTRANCE SCHOLARSHIPS.

Two entrance scholarships, of the annual value of £25 and £20 respectively, tenable for two years, are offered for competition at this hospital at the commencement of each winter session. The successful candidates of the present session are Mr. Thomas Jackson, B.A. Lond., who obtained the first scholarship, and Mr. W. S. Watson, who gained the second.

### THE WORK OF A PHYSICIAN.

To the energy chiefly of Dr. Gason, a resident physician, a Protestant church has been erected by public subscription, and was opened on the 25th inst., in the Piazza, San Silvestro, Rome. The Doctor subscribed £900 himself. The entire expenditure is a little over £8000, of which about half has been subscribed.

### UNIVERSITY OF OTAGO, NEW ZEALAND.

The Council of this University recently resolved, in order to meet the express wish of the colony, to institute a chair of Anatomy and Physiology. The University is already fully equipped with chairs of classics, mathematics and natural philosophy, mental philosophy, and physical science. It has a special endowment for the chair of mental and moral philosophy; and as it is further endowed with 200,000 acres of land, it has means enough at its disposal to pay the new Professor of Anatomy and Physiology liberally. The salary offered is £600 per annum, to commence from the date of embarkation, besides class fees of £3 3s. per head, and an adequate allowance for passage and outfit. No private practice, however,

will be permitted. No religious test is required to qualify the holder of the chair. As the colony of Otago is composed chiefly of Scotchmen, it was to be expected that the election would fall upon a graduate of one of the Scotch Universities. We are, accordingly, informed that at a special meeting, convened for the purpose of considering the applications for the chair of Anatomy and Physiology, the Council elected Dr. Millen Coughtrey to be Professor. Dr. Coughtrey is an M.B. and C.M. of Edinburgh, and took his degrees in 1871.

## MEDICAL NOTES ON A VISIT TO THE WINE DISTRICTS OF WESTERN FRANCE.

(*From our own Correspondent.*)

SAUMUR—SPARKLING WINE—PROCESS OF MANUFACTURE—SUCCESSIVE FERMENTATIONS—EXHAUSTION OF FERMENT—TRUE SPARKLING WINE NOT FERMENTING—ADDITION OF LIQUEUR—QUESTION OF WHOLESOMENESS—QUESTION OF COST—SPARKLING WINE CHEAP IF BOUGHT UNDER ITS OWN NAME.

I HAVE availed myself of an invitation to visit some of the wine districts of France, now fully occupied in the care of their abundant vintage. Perhaps you will give me leave to lay a few jottings before your readers.

Let us skip the earlier part of the journey (I only wish it were possible to skip the Channel), and suppose ourselves arrived at Saumur, a town on the River Loire, in the Department of the Maine-et-Loire, half a day's journey south-west of Paris. Here the eye is regaled with a scene of picturesque beauty. A fine old town, sheltered by lofty hills that rise behind it, crowned with a frowning old castle. In front, a broad valley through which the Loire flows in a wide channel, abounding in banks of gravel, which, if bad for the navigation, are said, from the absence of mud, to be prolific of excellent fish. The river is subject to great and sudden inundations, which are kept within bounds by raised causeways—*levées* they call them here, as they do in Louisiana. Each flood leaves a deposit of fertilising mud on the lower grounds. So far we have another Egypt with its Nile; but the hills on either side, instead of being horrible stony sandy deserts, enlivened with catacombs and mummy pits, are abundantly clad with vines, which yield the wine which it is my purpose to speak about.

The fact is that this wine is perfectly familiar to us in London, only, as I shall show presently, it has hitherto been decorated with other names than its own. Five years ago it was described in the *Medical Times and Gazette*, and I have quite a large set of acquaintances in England and in India who import it for use at their own tables; but if one went into a wine merchant's and asked for a bottle of sparkling wine of Saumur, it is doubtful whether one would get it under that name. As one of the kind and hospitable proprietors and wine manufacturers was driving me to his residence in a pretty village situated on a rather considerable affluent of the Loire, a few miles below Saumur, he pointed with justifiable pride to the neatness, cleanliness, and general signs of comfort amongst all classes. "All this," he said, "depends on London. We send thither every year 4,000,000 bottles of wine, and an equal value of barley. We are an outskirt of London!" The teetotalers, I fear, will derive no comfort from the fact that France sends us so much barley to be converted into our own national drink, as well as her own wine; but I must leave the barley and trace the history of this wine, from which my medical brethren may, I think, derive one or two comforting hints.

When anything is produced well and abundantly in any particular place, there are usually more things than one to favour it. Thus, in the Saumur district the hills of calcareous tufa not only afford congenial soil for the vines, but they are capable of being excavated into cellars of almost any extent. It would seem that caves in the hill-side in this district have been in use from time before history begins—first as habitations for the living (and some of them are used for this purpose still); secondly they have been used as burial places; and thirdly as *caves* or cellars where immense quantities of wine can be stored, and preserved at an uniform temperature, whilst it is coming to perfection. The residence of our kind entertainer and guide, with its garden, was at the foot of a cliff, out of which acres of soft limestone had been dug in long wide cellars, the floors of all being on the level of the external ground, and the roofs perforated at regular intervals with circular chimneys for ventilation. The hill over the caves, as elsewhere, was covered with vines.

Here we were shown the whole process of the manufacture of sparkling wine. It begins as grape-juice or *must*, which the manufacturers buy of the surrounding peasants and small proprietors—for I need hardly say that property is much subdivided: the peasants cannot make good sparkling wine in small quantities and with small appliances, so they sell their grape-juice to the manufacturer. Half of each year's *must* is put into barrels by itself to ferment and become wine, which is mixed with half the *must* of next year. The remainder is mixed with that half of the wine which was put by over from last year. The various sorts of grape-juice, some of white, but mostly of black grapes, are blended in proportions to be estimated by the initiated alone; and half this year's *must*, with the residual moiety of last year's wine, as has just been said, is poured into a huge *cuve* or mother cask, containing I am afraid to say how many thousand gallons, when the mixture is well stirred up and left to ferment. I need hardly say that the juice of black grapes and of white is of the same colour, only in making red wine the juice is fermented along with the skins of the black grapes, which are pressed afterwards; whilst in making white wine, whether from black or white grapes, the skins are pressed at first, and left out of the *cuve*.

Well, after a fortnight's fermentation the young wine is drawn off into *barriques*, in which it remains all the winter, slowly finishing its fermentation, letting fall its lees, and, as they truly say, eating up its sugar; for the practical fact is that the *must*, which, from the sugar it contains, is a good deal heavier than water, is converted into a wine of the specific gravity ·993, or thereabouts.

So it goes on by itself up to the May following. Then the manufacture begins. The wine is put into bottles, in order that it may undergo a second fermentation, which shall have these purposes—viz., to charge it with carbonic acid gas, and to use up and rid the wine of all residue of that organic nitrogenous matter which we know as *ferment*, and which is the home and food of the torula and mycoderma, on which M. Pasteur has so well discoursed.

To effect this, the wine when bottled is charged with a small dose of the finest sugar candy, just enough to raise its specific gravity up to the level of distilled water. It is in the addition of this sugar that there lies one of the great niceties only to be dealt with by a combination of scientific knowledge and practical skill. If too much sugar be added, and the wine be still rich in ferment, the quantity of carbonic gas generated will burst the bottles. Hence the manufacturer, knowing that sugar yields in fermentation half its weight of alcohol and half of carbonic acid, has to calculate the quantity of sugar to be added, so that the pressure of gas generated within the bottles shall not exceed five atmospheres.

The delicacy of this operation is manifest from the fact that, if not sugar enough be added to use up the ferment, the wine when finished will not be clear; whilst if too much be added, the bottles will burst; and with bursten bottles, I need hardly say, there is an end of the wine. As things are, the loss from bursting is great. I asked innocently enough, Why not collect and use the old veteran bottles that have already stood the conflict? and was told that when this is done the loss from bursting is frightful. The pressure from within of the carbonic acid is said to make the bottles bulge, though we may think them made of inflexible material; and the maxim holds true here as elsewhere, that new wine must not be put into old bottles.

Well, the wine just put into bottles, tightly corked and tied down, and dosed with a small quantity of sugar, is left at rest for some months, in order that its sugar may be converted into alcohol and carbonic acid by the remaining ferment. The progress of the fermentation is made manifest by the growth and death of successive generations of torula, which fall down and form a sediment. It is an axiom that there is no fermentation without a growth of torula, which lives upon the nitrogenous matter of the wine, and so long as fermentation continues that sediment will go on increasing; and it is the object of the manufacturer during this stage to get all the

ferment separated, so that future fermentation may be rendered impossible.

When the fermentation is finished, then begins a series of operations to coax the deposit into the necks of the bottles. They are moved from the horizontal to a slanting condition, and are turned a quarter of the circle and gently shaken every day. One man is able to perform this operation on 70,000 bottles a day. This, supposing he works eight hours a day, is quite possible; for both hands work at the same time, and each hand can easily turn and shake 73 bottles in a minute.

When the operation of *remuage* has succeeded in coaxing all the deposit into the neck of the bottle, leaving the wine quite clear, then comes the operation of *dégorgement*. Quick as thought the operator seizes each bottle, cuts the string, out flies the cork, and with it a certain quantity of wine, including all the deposit collected in the neck; then the bottle receives a certain dose of *liqueur*—a compound of the finest wine, cognac, and sugar candy,—it is filled up with wine, a new cork is driven in, tied, and wired down, and the wine is ready after a short rest for exportation and consumption.

There are in the above sketch (in which I have been obliged to omit all sorts of niceties and details which were shown me) two points which my medical readers will dwell upon, as relating to the wholesomeness of these and other sparkling wines.

First of all it will be seen that there is a difference between a *fermenting* and a sparkling or effervescing wine. All fermenting wines effervesce; but all true sparkling wines, though they effervesce, yet are not fermenting.

This is a distinction which the practitioner will bear in mind. Any wine containing sugar and ferment will effervesce, just as ginger-pop does when we put together water, sugar, ginger, and yeast into bottles to make ginger-beer. It is thus that our housewives used to make sparkling gooseberry and the like. But wines of this sort are accused of being heavy to the head, and apt to create acidity of the stomach.

On the contrary, a true sparkling wine is one whose fermentation is over and done; whose nitrogenous ferment is exhausted; and which is not a generator of fresh carbonic acid, but merely retains in solution the gas which resulted from previous fermentation. The stronger the wine, the more gas, I am told, it can retain in solution easily. The normal pressure, I am told, within a finished bottle is two and a half atmospheres.

The second point relates to the liqueur. What is it? Why is it used? And is it wholesome? It is made of the finest and driest old wine, of the best sugar candy, and of a particular double-distilled *eau-de-vie*, of which I saw the distillation at Cognac a few days later—of which more anon. These ingredients are most carefully chosen, and prepared, and filtered so as to exclude any torula or source of fermentation, and a small quantity is added to each bottle, after *dégorgement*, just before it is filled up and corked. Why? Because the wine is naturally very dry, and people like the suavity and roundness imparted by this little dose of sugar and brandy. Is it wholesome? That can only be told by the experience of daily life, and I believe most of us find in good sparkling wine a remedy that has no sting in its tail.

The practical application of the foregoing details is this:—Both in society and in medical practice the use of sparkling wine is largely on the increase. Nothing is so exhilarating with so small a quantity of alcohol in it. Well, we have seen that the production of this wine by the twenty-five manufacturers around Saumur is immense. What becomes of it? Half is sent to London, where it has hitherto been bought by wine merchants, and ticketed with any name the purchaser chooses to give it. Most likely he calls it "champagne," and puts "Reims" on the label, and sells it as champagne. The other half goes to Champagne, where it is used by the manufacturers to make the second quality of champagne.

Now, if a man who desires a sparkling wine, whether for merriment or health, can afford one of the grand brands of champagne from 7s. to 10s. a bottle, he may please himself. He gets, or believes he gets, value for his money. But for the middle classes, who cannot afford this, and yet who want sparkling wine, it surely is foolish to give 4s. or 5s. for a second-rate "champagne," when a wine which is either the same identically, or, rather, one better than the second-rate brands of champagne itself, may be had for less money, under the modest and true appellation of "sparkling wine of Saumur." Now for Bordeaux and Arcachon.

*(To be continued.)*

# FROM ABROAD.

## Doctors at Play.

We have not unfrequently been struck by the imperturbable good-humour and untiring patience with which our continental *confrères*, whether German or French, will listen at their banquets to the poetic effusions of interminable length and doubtful humour which always seem to be forthcoming from some climber of the medical Parnassus. Doubtless, at the recent anniversary at Broslau, there was plenty of this old-world sort of thing, but the profession was determined to greet its visitors with something more original, in the shape of an allegorical play entitled "The Dream of the Doctors." The play, its prologue and epilogue, were written by doctors; doctors were its actors, and formed a large portion of an overflowing audience in the large theatre. Herein, says a delighted reporter, were set forth, in the allegorical form, all the different systems of medicine which have prevailed from the time of Hippocrates to the modern exact school—their merits and their defects exhibited in right drastic style. Nor were witty couplets wanting touching on the newest topics of the day—as Virchow and the Bleeding Louise, for example. So, too, the sacrifices contingent to a doctor's career were earnestly and significantly dealt with. The performance terminated by a brilliant ballet danced by "wild" young doctors and students aided by eight lady-students from Switzerland. All went off admirably, the only complaint being that the theatre would not hold 5000 in place of 2000. Crowded as it was, some of the honoured heads of the profession, who have their thrones in the Olympus of science, were fain to be content with the Olympus of the theatre—in other words, with a standing-place in the third gallery.

## Professor Schwann and Louise Lateau.

The statement quoted by Prof. Virchow, in his address on miracles (referred to in our last), from Dr. Rohling's pamphlet on Louise Lateau—viz., that Prof. Schwann, the renowned originator of the cell-theory, had declared, after visiting the bleeding girl, that all unprejudiced persons must yield to the evidence offered to their notice, has been flatly contradicted. Prof. Schwann states that at the beginning of 1869 he and some Belgian colleagues were invited by Dr. Lefebvre to investigate this case of stigmatisation at Bois d'Haine, and he consented to do so; but the conditions which he considered necessary for arriving at an impartial judgment and an impartial result not being agreed to, he regarded the matter, as far as his participation was concerned, at an end. In March, however, of the same year he received a very pressing invitation from a person of high position to be present at one of the *séances*, he being there *incognito*, and in nowise connected with what was going on. He consented to be present, regarding himself rather as a spectator than as an experimenter. Upon the occurrences which took place he has made no report, because the conditions necessary to secure a scientific result were not fulfilled. As, however, his name has been brought forward, and words attributed to him which he never spoke, he takes the opportunity of stating that he denied their accuracy at the time in one of the Belgian journals, while Dr. Rohling, in the fifth edition of his pamphlet, has also retracted his former assertion.

## Injection of Pulmonary Cavities.

Dr. Pepper terminates an elaborate historical paper (*American Journal of Medical Sciences*, October), containing also accounts of six cases of his own upon the "Local Treatment of Pulmonary Cavities by Injections through the Chest-Wall," with the following conclusions:—"1. The idea of opening lung cavities by an incision through the chest-walls is, at least, as old as Baglivi (probably much older); but owing to the very imperfect character of early clinical records of thoracic disease, it is difficult to show that such an operation was actually performed before the last century, or more probably the present one. 2. The idea of conducting continuous treatment of such cavities by local applications, made directly through the chest-walls, has been seriously entertained only within the past few years. 3. The possibility of puncturing the lung in a state of health with delicate needles without injury was demonstrated in a few instances

by the advocates of acupuncture, and more recently in the lower animals, by Koch and others. 4. The operations of Storks (*London Medical Gazette*, 1854) and Mosler (*Berliner Klinische Woehensehrift*, 1873, No. 45) have shown that lung cavities are very tolerant of external interference, and that they may be cut down upon and opened, canulæ introduced and retained, and various medicinal agents injected in solution or spray (Mosler). 5. The independent observations reported in full in this paper have shown that the continuous treatment of lung cavities by repeated injections (of Lugols' solution of iodine diluted by from six to ten parts of water), by means of delicate canulæ, may be conducted without pain, hæmorrhage, traumatic irritation, or interference with internal medication and hygienic measures. 6. The cases which are best adapted for this local treatment are those wherein a single superficial and circumscribed non-tuberculous cavity exists; but even when there is implication of the rest of the lung, or incipient disease of the opposite lung, some benefit may be expected. 7. The mode in which such treatment does good is chiefly by altering the character of the morbid action in the walls of the cavity, and diminishing the amount of purulent formation, as well as the degree of hectic irritation and the danger of constitutional infection. A certain amount of rest for the walls of the cavity is secured by a marked relief afforded to the cough. It is also indicated by the progress of the cases above reported that this treatment may favour the cicatrisation and contraction of such cavities. 8. In the cases in which it has been employed (in which over seventy injections have been given), it has shown itself free from all danger, and of a certain degree of positive clinical value, since during its use uniform improvement to an exceptional degree has taken place in both the general and local conditions of the patients."

### Algidity in Strangulated Hernia.

At a recent meeting of the Société de Chirurgie (*Union Médieale*, October 31), M. Demarquay brought under notice the algidity observed in the subjects of strangulated hernia, his attention having been originally drawn to the subject by having had brought into the Maison de Santé a man who was supposed to be dying of cholera, which was then prevailing epidemically. He was vomiting, and in a state of almost complete cyanosis. M. Demarquay, observing that the vomits were not choleraic, but stercoral, rightly diagnosed strangulated hernia, as the event proved. Observing so considerable a depression of the general temperature in this case, he investigated the condition of the temperature in other cases, and found that it was sometimes increased and sometimes diminished. This difference he felt disposed to attribute to the difference in the seat of the strangulation, having observed that the greatest depression of temperature took place when the strangulation occupied the upper portions of the small intestine, this being probably due to the abundance of the nervous supply for these parts. He instituted experiments on dogs, producing constriction at different heights of the small intestine; and he found, in proportion as this influenced the parts nearer the duodenum, the consequent depression became more or less considerable. He therefore believes that the modification of temperature observed in these cases depends more on the seat of strangulation than on any other cause.

M. Verneuil observed that he had engaged in this investigation since M. Demarquay had done so, but had not arrived at quite the same conclusions. At his request, M. Terrilon, one of the ablest of the anatomical demonstrators, submitted the intestines of seven or eight dogs to very firm constriction without observing any depression of temperature. So, too, with regard to the influence of the seat of the structure, M. Demarquay's remarks are not secure from criticism. Last year a patient was brought into Lariboisière complaining of fearful abdominal pains, there being vomiting without stools, while the abdomen was absolutely depressed. The temperature was only some tenths above 32° C. (95° F.), the algidity being such as is met with after very abundant hæmorrhage or the most violent traumatism. From the sole fact of the great depression of temperature, M. Verneuil did not hesitate to diagnosticate a hyperacute strangulation of the intestine. The patient having rapidly sank, it was found at the autopsy that there was a strangulation occupying at least twenty-five centimetres of the large intestine, the sigmoid flexure being in a livid state. So marked was the strangulation that it might have been supposed to be produced by a tightly tied ligature. M. Verneuil is of opinion that the sole fact of a notable depression of temperature is in certain cases a precious means of diagnosis, enabling us to distinguish with certainty strangulated hernia from simple intestinal obstruction; but it is evident that at present we are ignorant of the laws which regulate these modifications of temperature.

### Treatment of Orchitis by Absolute Rest.

Dr. Ponzoni furnishes an account (*Gazzetta Medicina Italiana*, October 24) of the great success which, at the hospital at Lodi, has attended the treatment of orchitis, whether traumatic, idiopathic, or secondary to blenorrhagia, by absolute repose. Dr. Fiorani, the senior surgeon of the hospital, introduced the treatment some years since, under the belief that the cases which were said to recover under the use of collodion, nitrate of silver, etc., really did so in consequence of the immobility which accompanied these different modes of treatment. In 1872 he published twenty-two cases in which a cure was effected by this means alone. Since that time the practice has been continued, and Dr. Ponzoni now publishes twenty-eight additional cases, of which number sixteen were examples of blenorrhagic orchitis, five were idiopathic, and seven traumatic. To these are also to be added two cases of idiopathic epididymitis, and two cases of spermatitis, one blenorrhagic, and the other traumatic; making thirty-two in all. In two of the cases of blenorrhagic orchitis, repose was accompanied by the application of collodion in order to secure a greater quietude to the organ in consequence of the indocility of the patients, caused in one case by a cough, and in the other by abdominal pain. In two others the pain had been dissipated by rest, and the size of the testicle had become reduced, but, as the resolution seemed to be delayed, it was hastened by the application of ointments. In all the others simple repose sufficed, the medium time required for the cure being much less than that required by other modes of treatment. The rest has, however, been absolute, the patient not even getting out of bed to pass his evacuations, but remaining in the supine position, having the testis supported by a small cushion placed between the scarcely separated thighs. Under this procedure the patient feels some amelioration even by the next day; the pain and any febrile action that may accompany it soon subsiding, and the organ gradually recovering its normal size.

## REVIEWS.

*An Epitome of Therapeutics: being a Comprehensive Summary of the Treatment of Disease, as Recommended by the Leading British, American, and Continental Physicians.* By W. Domett Stone, F.R.C.S., Honorary Member of the College of Physicians of Sweden, Physician to the Westminster General Dispensary. London: Smith, Elder, and Co. Pp. 359.

In the conception of the form and character of this book Dr. Domett Stone has made a capital hit, but in working it out we are quite sure he could have done better. The book consists, of course, mainly of excerpts from many various authors, some of great fame and reputation, others, again, of what might be called somewhat doubtful authority. What we should have liked to see Dr. Stone do, would be either to leave out the latter class altogether, or to have in some way or other indicated the inferior authority thus invoked. This Dr. Stone could certainly have done much better than the great majority of his readers. We throw out this hint not so much in the way of criticism, as illustrating at least one mode in which the book may be improved in a subsequent edition. Even as it stands there can be no doubt but that it will prove eminently useful.

*The Practice of Medicine.* By Thomas Hawkes Tanner, M.D., F.L.S., etc. The seventh edition, revised by W. H. Broadbent, M.D., F.R.C.P., Physician to the London Fever Hospital, Physician to St. Mary's Hospital, and Lecturer on Medicine at St. Mary's Hospital Medical School. Two vols., pp. 642 and 675. London: Renshaw.

One prime factor in the late Dr. Tanner's success in life was his acumen in hitting on what was wanted by the medical public; and that he did succeed in satisfying the wants of the great bulk of the profession is most notably illustrated by the immense sale of this book. With his unfortunate death the prospects of the work might have seemed marred, but in the hands of Dr. Broadbent it certainly has not suffered. If there was a default or defect in the book as it issued from

Dr. Tanner's hands, it was one inevitable to his position. For only a few years had Dr. Tanner opportunities of hospital work on a large scale, and these were mainly consumed in the study of one particular department. It could not, therefore, be expected that he could give in his work indications of that peculiar knowledge of disease which only comes of work in the wards of a large hospital. This want has been most admirably supplied by Dr. Broadbent, well known as one of our best clinical observers and teachers. Under this gentleman's care the new volumes have come out, and we can most candidly say that his work has been thoroughly done. The plan and scope of the work have remained unaltered, but we think the editor has been most judicious, both in what he has left out and in what he has added. As it stands, we can most cordially recommend the work to the profession as in every way a sample of sound, reliable, good work.

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*Clinical Atlas of Skin Diseases: being Delineations of Cases as they actually occur, together with their Diagnosis and Treatment.* By H. Stanley-Gale, M.B. Lond., etc., Physician to the Manchester Skin Hospital. Part 1.

There has been forwarded to us for review or notice a production with the above title purporting to be from the pen and pencil of Dr. Gale. The merits of the letterpress are of the lowest; the illustrations are most hideous. The only things we have ever seen approaching either are those horrible productions one sometimes comes across in the back slums of great cities in the shop windows of so-called herbalists. If we are rightly informed as to Dr. Gale's antecedents, it is truly deplorable to see that he has come to publish such a thing and to forward it to respectable journals.

## FOREIGN AND COLONIAL CORRESPONDENCE.

### AMERICA.

Philadelphia, August 24.

The First Operation in America for Amputation at the Hip; Excision of the Clavicle; Ovariotomy; Removal of the Inferior Maxillary Bone; Gastrotomy; Vesico-vaginal Fistula; Ligature of the Innominate Artery, etc.

It is surprising how many valuable contributions to the surgery of this country have been made by those who practised their profession in obscure villages and towns. A paper, exhibiting this fact, in connexion with the claims of Western surgery, was prepared by Dr. Paul F. Eve, of Nashville, to be presented at the recent meeting of the Association; but it came too late for appropriate reference to a section, so that I overlooked it in my account of the proceedings. The report is characterised by all the order and enthusiasm of our Western brethren, being penned by one of the most conspicuous and able among them. We quote freely from the statements embodied in it. Among other points of originality claimed for the Western portion of the United States especially, it was mentioned in this paper (1) that the first successful amputation at the hip-joint in America, and it may be the first successfully performed in civil practice the world over, was done by Dr. Walter Brashear, of Bardstown, Kentucky, in August, 1806. The patient was a boy of seventeen years; the method of operation the circular, with incision over the trochanter major to complete the disarticulation. At a public dinner given to the celebrated Henry Clay by the City of New Orleans, Dr. Brashear being also present, to a sentiment complimentary to this operation, the great Kentucky orator exclaimed: "Doctor, they have got you on the hip!" It was nearly twenty years—viz., in 1824—before this most formidable of all amputations was successfully repeated in this country.

2. The same paper also states that in 1828 Dr. Mott published his case of excision of the clavicle for osteo-sarcoma, believing it at the time to have been the first operation of the kind ever performed. So formidable, too, did he consider it that he subsequently called it his "Waterloo operation." Little did he suppose that here, again, he had been preceded by another Kentuckian. The first successful excision of the entire clavicle ever achieved was done by Dr. Charles McCleary, of Hartford, Kentucky, on May 4, 1811, as reported in the *Medical and Surgical Journal* of New Orleans for 1850. Dr. Gross, in his "System of Surgery," says it was done in 1813, and on a boy of fourteen years, for scrofulous caries of the right collar-bone, who survived the operation many years.

3. To Dr. Ephraim McDowell, of Danville, Kentucky, is the world indebted, says this paper, for the operation of ovariotomy, in December, 1809. This was soon followed by two other cases, and the three published in 1816 in the *Eclectic Repertory* and *Analytic Review* of Philadelphia. So that to a backwoodsman of America, says the report, without now the shadow of a doubt, we owe the origin of the most hazardous, delicate, and wonderfully successful operation in gynæcology.

4. Professor Gross, in his "Surgery" (vol. ii., p. 926) says,—"Vaginal hysterotomy was first performed in this country in 1830 by Dr. J. Briggs, of Kentucky."

5. In regard to resection of the inferior maxillary bone, it is stated that on February 6, 1810, William H. Deaderich, M.D., of Rogersville, Tennessee, removed nearly one-half of the lower jaw-bone from a lad fourteen years of age, "without known precedent or professional counsel or aid." The patient fully recovered. This was the first operation of the kind ever performed, and was originally published in the *American Recorder* of Philadelphia. The case excited at the time great interest, both in this country and Europe. Dr. Mott, Mr. South (editor of the English edition of "Chelius's Surgery"), Professor Gross, and others, have all admitted that this was the first operation of the kind.

6. Gastrotomy for intrasusception is described in the *Pennsylvania Medical Journal*, 1835, as having been performed by John R. Wilson, M.D., on a negro man, twenty years old, in December, 1831, then of Rutherford County, Tennessee. Other means having failed, seventeen days after obstinate obstruction in the bowels, the abdomen was opened by an incision two inches above and three inches below the umbilicus, when the ileum was found invaginated and threatened with mortification; was drawn out carefully and released, and the wound closed by sutures and plasters. He fully recovered.

7. While J. Marion Sims, M.D., etc., was practising medicine at Montgomery, Alabama, in the happy combination of the duck-bill speculum, silver suture, and sigmoid catheter he succeeded in permanently closing the fistulous opening between the bladder and vagina. The details of his operation for vesico-vaginal fistula were first published in the *American Journal of the Medical Sciences* for 1852. His peculiar speculum has actually produced a new era in the treatment of female diseases. Dr. Sims now resides in New York City, and is the bearer of the Cross of Honour from France, Belgium, Spain, Portugal, and Italy. He was Surgeon-in-Chief of the Anglo-American ambulance at the battle of Sedan, which culminated in the downfall of the French empire under Napoleon III. He is also the author of several works on gynæcology, and the founder of the New York Woman's Hospital, valued at a million.

8. Of fourteen published attempts to ligature the arteria innominata, the only case in which the patient survived occurred to Dr. Andrew Woods Smyth, of New Orleans, Louisiana. The operation was performed in the Charity Hospital in that city on May 15, 1869. Its success is attributed by Dr. Smyth, and no doubt correctly, to his tying also the right vertebral artery. Ligatures had previously been applied simultaneously to the innominate and right carotid; but hæmorrhage recurring at irregular intervals, at the end of fifty-four days the operator tied the right vertebral. Four months from the date of the first operation the patient was announced to have fully recovered.

9. The operation of removing the entire ulna and radius, except a small portion of the lower extremity of the latter, was first performed by Dr. Compton in 1853, when he was connected with one of the medical colleges of New Orleans, and is published in the *Medical Register* of that city. The accident requiring its performance occurred to a sailor boy, who, while asleep on the anchor-chain, was caught in its running out and the limb severely fractured. On April 18 the doctor removed both radius and ulna entire, excepting a portion of the inferior end of the former bone. The forearm is two or three inches shorter than the other, but it has assumed a healthy condition, can be used to a limited extent, and the boy, eleven years of age, fully recovered.

10. The late Prof. Josiah C. Nott, M.D., of Mobile, Alabama, first exsected part of the coccyx for distressing nervous affection of the neighbouring soft parts. This he did by removing two segments of this bone, in 1843, from a lady patient of twenty-five years, who had been a great sufferer, and whom he partially relieved by the procedure. This is believed to

be the first instance of such an operation. The case is published in the *New Orleans Medical Journal* for May, 1844. In Prof. Gaillard Thomas's edition of the work of Prof. Barnes, of London, it is stated that J. C. Nott, M.D., performed this operation for coccydinia fifteen years before the late Dr. James Y. Simpson did it.

11. Dr. Charles A. Luzenberg, while in charge of the Charity Hospital, New Orleans, Louisiana, in 1834, laid open a strangulated hernia, and finding the intestine completely mortified, did not hesitate to remove the dead parts, stitched the serous surfaces together, and the patient fully recovered in thirty-five days. As early as 1832 he recommended the exclusion of light to prevent pitting in small-pox.

12. The first, and probably the only successful, removal of the kidney performed in this country, occurred in the practice of Prof. G. T. Gilmour, M.D., now of Mobile Medical College, during December, 1870, the patient a negro woman, aged thirty-three, and pregnant. Prof. Simon, of Heidelberg, as is well known, revived the operation on this organ by the successful result of his case of extirpation in 1870, while it may be true that Marchetti, an Italian surgeon, had practised nephrotomy during the seventeeth century. Several recent attempts at these operations have all proved fatal. Of course the distinction is here made between the extirpation of the organ under consideration and nephrotomy proper.

13. A case of removal of the crista galli for fracture of the cranium (reported in the *Nashville Journal of Medicine and Surgery* for 1852) is believed to be the only case of the kind on record. It may be the only one in which this portion of the cranium was ever removed by an operation. On December 15, 1851, Dr. Paul F. Eve relieved a patient who had been dashed out of a buggy against a telegraph pole. The os frontis was extensively fractured, the shock so great that his pulse fell to forty-four, and his breathing became stertorous. Twelve pieces of bone were elevated, the hæmorrhage from the nose ceased, and the circulation rose to sixty-two. In one of the fragment removed, the crista galli, with the foramen cæcum, were distinctly recognised. The patient unfortunately became uncontrollable, and in his movements struck his forehead. Cerebro-meningitis supervened, and he died on the sixth day, having, however, lived long enough to create hopes that under more auspicious circumstances he might have recovered. Was this possible?

These claims on the part of our Western brethren have never before been detailed *en masse* for the general information, and their publication now may perhaps be the opening wedge for a discussion on the subject. It certainly would be a matter of interest to have the question of originality settled to the satisfaction of the whole profession in an impartial spirit that will not blind scientific men of any one country to the merits of those of any other.

## PROVINCIAL CORRESPONDENCE.

### SCOTLAND.

Edinburgh, November 3.

Opening of the University of Edinburgh—Éloge on Professor Bennett—Opening of the Glasgow Extra-Mural School—Scarlet Fever in Edinburgh.

The opening address of the session 1874-75 of the Edinburgh University was delivered yesterday in the Queen-street Hall by Principal Sir Alexander Grant. A very large number of students were present, and the usual lively demonstrations on their part preceded and followed the proceedings of the day.

Principal Grant, in congratulating the University on its prosperity, said "Last session might almost be christened in our annals by the name of 'the Golden Session' on account of the rich contributions for the improvement of this University made by the people of Scotland." The amount contributed up to the present time for this purpose is £70,000. "The first object to which this sum should be devoted is, to provide proper theatres, laboratories, class-rooms, and museums for the medical faculty on a level with the requirements of modern science—equal, if possible, to the new buildings of a similar kind recently erected in Berlin, Bonn, Leipsic, Jena, London, Oxford, Cambridge, Manchester, Glasgow, and other places. And this step is absolutely necessary if the medical school of the Edinburgh University—which is by far the largest and most important medical school in the United Kingdom—is to continue to hold its present position." A second object is to provide a hall for the University in which academical meetings and examinations may be held; and one of the remaining objects is to improve the architecture of the north front of the College, "which at present makes a far from creditable appearance by the side of the Government museum, and opposite to the handsome buildings now rising in Chambers-street." The total cost of the whole undertaking cannot be estimated under £150,000. "Of this sum," says Sir Alexander Grant, "we trust that altogether £100,000 will be provided by the public spirit of individuals, and we shall then assuredly have a good claim upon the Government to supply the remaining £50,000 by Parliamentary grant." The acting committee have already expended £33,000 on the mere purchase of a site; yet the encouragement given is so great that they consider themselves justified in proceeding to the immediate commencement of the new buildings. With reference to the architectural style of the building—which has caused much anxiety to the committee—"I believe," he says, "we shall look more to general harmony of the proportions and simple dignity of the lines of our buildings than to particular mouldings and decorations, however good in themselves."

There have been 839 medical students on the rolls for last year, showing an increase of fifty-seven on the previous list. Of the 201 first year's students in medicine only sixty-two were born in Scotland, and only sixty-six received their previous education in Scotland, eighty-six having been born in England, Ireland, and Wales, forty-one in the colonies, and eleven in foreign parts. Of the whole number eighty-seven were educated in England, Ireland, or Wales, thirty in the colonies, and seventeen in foreign schools. Of the medical students more than three-fifths are thus seen to belong to other countries.

Referring to the new degrees, Sir Alexander says:—"Two excellent changes have been introduced at the instance of the Faculty of Medicine. The first of these consists in the introduction of a new scientific degree on the subject of public health. There is no subject the study of which is more important to the community; no subject is more prominent in the present day. The creation of many responsible appointments of 'health officers' throughout the kingdom calls for efficiently prepared persons to fill these appointments, and our new degree will induce some of those generally skilled in medicine to devote themselves specially to this department, and will test their acquirements in it. The second reform consists in strengthening the system of medical examinations, by increasing the number of non-professorial examiners in medicine from three to seven, or more. The effect of this will be that the examiners will be chosen for their special knowledge of some particular subject, instead of, as heretofore, for a general acquaintance with all the branches. This will afford the means of testing more accurately the qualifications of the students. And the measure is altogether one in the right direction, for it tends towards the assertion of the principle that the final judgment on the attainments of a student in any subject should rather rest with some competent external authority than with the professors who have taught him. If this measure be well worked, and perhaps ultimately carried somewhat further, it will entirely obviate even the shadow of a necessity for that which would be most disadvantageous to medical education and medical science—I mean a central board of medical examination for the whole kingdom."

Sir Alexander, in speaking of the losses in the professorial body, made the following reference to Professor Bennett:—"Than Dr. Hughes Bennett no more able, more enthusiastic, or more successful professor ever taught in the University of Edinburgh. I must not speak of him as one whose career is closed. His strength has somewhat failed him of late, and he is unable to continue, in the vigorous climate of this place, the severe exertions which he has made during the last twenty-six years. But in a more genial atmosphere, and with leisure at his command, he may still add some crowning touches to the work of his life here, on which he has every reason to look back with pride and pleasure. I lament the loss to the University of his strong mind, his clear and vigorous eloquence, his scientific thoroughness, and his European reputation. I cannot attempt to specify his achievements; I will only advert to some of the points in which we, and the world in general, are indebted to him. We are indebted to him, then, for the results he has attained in the instruction of his class, for the many able physiologists whom he has trained up to tread in his footsteps, and especially for the permanent revolu-

tion which he has effected in the teaching of physiology, he having been the first to introduce the practical teaching of that science. We are indebted to him for his writings, which include numerous and valuable contributions to the medical journals, several monographs or treatises on special subjects, and three systematic works on Clinical Medicine, on 'The Principles and Practice of Medicine,' and on Physiology, all of which have been translated into the Continental languages. Lastly, and perhaps chiefly, the world is indebted to Professor Bennett for the changes in the practice of medicine which he greatly contributed to introduce in this country, such as the use of cod-liver oil in the treatment of pulmonary consumption—the invigorating treatment in general of this disease, which had before been ignorantly treated as a species of inflammation, and the discontinuance of blood-letting in fevers and other inflammatory disorders. By these changes in medical practice it is not too much to say that thousands of lives have already been prolonged. I do not claim for Dr. Bennett the merit of having absolutely originated them, but he appears at an early period by his physiological and pathological sagacity to have apprehended their importance, and to have pointed out the true *rationale* on which they depended, and his lectures gave diffusion to these sounder views. And thus in his generation he has played the part of one of the great savers of human life. Besides these professorial and professional merits, Dr. Bennett's zealous attention to the general business of the University deserves a record, and especially what he did for us during the passing of the Scottish Universities Act of 1858, when he went as our delegate to London, and by his business capacity considerably assisted in the ultimate construction of that measure to which we owe our present academical constitution. With a grateful recollection of all these services, our good wishes and regards will follow Professor Bennett to his new home in the South of Europe."

Dr. Stephenson delivered the inaugural address at the winter session of the Edinburgh School of Medicine at the College of Surgeons. After giving a number of valuable hints to the students in an interesting sketch of the present requirements of medical men, Dr. Stephenson spoke of the controlling of their emotional nature as an important part of their education. In the hour of greatest danger, he said, we clung to that on which we could place most reliance; and so, he believed, would the public always prefer medical men to lady practitioners. He claimed for the former no intellectual superiority, greater power of endurance, finer ear, or quicker eye to perceive; but in the ability to command the emotions, men, he thought, stood pre-eminent. He had no objection to lady medicals, and would throw no obstacle in their way, for women themselves asserted that they had need of such practitioners. Just as he extended his sympathy to a hysterical patient in her mental affliction, so would he give the full benefit of being able to consult one of her own sex to the lady whose mental condition, from inherent weakness or faulty education, was so morbidly sensitive as to impel her to such a step. The necessity for lady practitioners was a morbid one; and every care should, in his opinion, be taken that while ministering to it they did not increase the evil. In the course of some remarks upon the present mode of conducting examinations, Dr. Stephenson said it was in reality not for these they were to study; their work should not be guided by the examinations they had to pass, but by the great object and aim they had in view—that of becoming able and trustworthy practitioners. The concluding portion of the address was occupied with various suggestions as to increasing the number of questions to candidates, and making them as simple and definite as possible.

Scarlatina has again become prevalent in Edinburgh. There were fourteen deaths from this cause last week; and from the number and nature of the cases in the Royal Infirmary and Royal Hospital for Sick Children there is reason to fear that we are on the eve of an epidemic of a severe type of this disease.

## IRELAND.

Dublin, November 3.

THE INTRODUCTORY LECTURES.—ROYAL COLLEGE OF SURGEONS; MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY; LEDWICH SCHOOL OF MEDICINE.

THE medical session was formally opened at the Royal College of Surgeons, on Monday, October 26, by an address from Dr. J. Emerson Reynolds, Professor of Chemistry. Of this some account has already appeared in your pages, and therefore it is sufficient to mention here that the lecturer introduced a somewhat novel feature in "introductories" by illustrating several of the topics on which he dwelt by experiments of an extremely interesting character.

On Monday, November 2, Dr. Arthur Wynne Foot lectured at the Meath Hospital before an immense concourse of students and many of the leading members of the profession. Owing to unforeseen circumstances he had been unexpectedly called upon at the last moment to deliver an "introductory." He selected as the subject of his eloquent and intellectual address the fundamental principles upon which a medical student should build his hopes of utility, prosperity, and success. Having touched on the necessity for a liberal preliminary education and diligent attendance in the wards, Dr. Foot described the system of clinical teaching for which the Meath Hospital is so famous. He continued—"Now, the best way of making a person interested in such work as there is to be done here, is to entrust him with some personal responsibility, however slight. Of course he must be looked after at the beginning, directed and corrected, encouraged, and shown his way, and it is in such collateral assistance that the personal influence of a teacher, provided that he is as earnest as he himself would wish his pupils to be, is felt and seen. This is the essence of the system of clinical teaching founded here by Graves and Stokes. The system makes provision for every student from the time that he neither knows how to wind a bandage or to make a poultice, to the time when, as is not seldom the case—I speak for myself, and I have heard Dr. Stokes say the same,—there is more to be learned from him than to be taught to him. The student in this system rises by degrees from the simplest to the most difficult duties. He commences in our dispensary with such responsibility—and heavy enough it is for him at first—as is involved in lancing a gum-boil, syringing an ear, or drawing a tooth; but as time passes, and he arrives towards the completion of his studies, he may be safely entrusted with the sole charge of a case of typhus fever—a charge which to give him, were he reared by any different system, would be encouraging him to imitate the conduct of Phæthon in attempting to drive the horses of the chariot of the sun. From the first day that he appears here, a student should accustom himself to the direct observation of facts: this has been proclaimed to be an absolute duty by all the men who have made the art of medicine and surgery illustrious. The original and proper sources of knowledge are not books, but life, experience, personal thinking, feeling, and acting. Facts, like asbestos, survive all fire; their perception demands no intellectual effort, it requires attention and memory. But till the student has learned how to see he is blind to many facts, and this house is like a great picture-gallery, hung with works from every school of painting, but for a beginner the pictures have their faces turned to the wall. As soon as attention has opened his eyes, and the observed facts begin to crowd upon his notice, he will find that it is of little use gathering precious treasures if he cannot store them. Memory, although the most wonderful of all the powers of the human mind, is naturally very treacherous, but, as if to make amends for this, is of all the mental faculties that one which is most certainly improved by exercise. Still, you will not risk the custody of all your valuables even to a cultivated memory; she might at any given moment petulantly refuse to hand you out what you wanted, and which you well knew was safely locked up in the cells of your brain; so that it becomes necessary to register your facts in note-books and case-books, and you should guard and keep these books safer than any others you may possess. I have often thought that were my house being burned, and no human life in danger, the first thing I would rush in to save would be my note-books; let everything else of worth or beauty perish—they might be replaced, but the note-books never. The only man whom I can conceive without a note- or case-book is the man who has no note to make." In a subsequent part of his lecture Dr. Foot said, "You have chosen a profession, the work of which is in every aspect of it of the noblest kind, and are to-day invited and warned to make up your minds without delay between work and idleness. The sentries at the gates of the profession are being doubled; there is a determination, shown in the reconstruction of the examinations, that it shall be no longer allowable to wade to a late experience through seas of blood. But these laws are a terror to none but evil doers; all that is required of you is a reasonable and average amount of

knowledge, such as any diligent student can attain; but for less no excuse will be taken. Of all professions, it is perhaps in this one that there is most room for the exercise of sympathy. Sympathy is that grand diapason which harmonises all the heart-cords of human nature. Like primroses in spring, it is one of the earliest flowers of the mind, and is notoriously exuberant in youth, a time of such susceptibility to impressions. It is, as Schiller says, 'Our own feeling when we are impressed with that of another, but it is our own feeling in a much higher state of development, for in the psychical ascent of the feelings it stands far above self-feeling, which is lost, forgotten, and absorbed in it. Sympathy is a marked attribute of every character that is noble and refined; in it all the radii of human nature meet, and the more widely the mind is expanded by knowledge of men and things, the wider is the circle of the sympathies; so keen is the reflexion through its agency of suffering in another that it is called compassion. The cultivation of this noble quality is a most essential feature of medical mental training; like all your other powers, it must be under proper control, and capable of being exhibited or concealed, according to circumstances. Often it must be carefully hidden under an icy exterior, as a tender plant is kept warm beneath a mantle of snow, because a sympathetic heart is too precious a jewel to be worn on the sleeve for every daw to peck at." After a full consideration of the practical duties of the students, Dr. Foot concluded amid applause.

The session at the Ledwich School of Medicine was opened on Monday, November 2, by an address from Mr. James E. Kelly, Lecturer on Anatomy and Physiology. He referred chiefly to the question of the admission of women to the medical profession, and in doing so minutely examined the arguments put forward in support of their claims. He concluded that it could not be shown that women possessed superior natural qualifications for the practice of any branch of the profession.

## GENERAL CORRESPONDENCE.

### MEDICAL DEFENCE ASSOCIATION.

Letter from Mr. George Brown.

[To the Editor of the Medical Times and Gazette.]

Sir,—The failure of recent attempts to convict parties who are practising without legal qualifications has naturally excited much uneasiness among medical practitioners, and it is felt that medical registration is a delusion and a snare if it does not protect the public and ourselves from unqualified practitioners.

If the present laws are insufficient to check quackery, we should use all our influence in effecting such alteration in the Medical Acts as may be necessary to secure conviction and heavy punishment in all cases where it can be proved that unqualified persons are practising as physicians and surgeons.

The Medical Council have declined to assist us in this matter; we must therefore help ourselves. In my opinion, the best way of doing this will be to form an association for the purpose of effecting reform in the Medical Acts, and protecting the interests of the profession by instituting legal proceedings against irregular practitioners in cases where conviction is likely to follow. Such prosecutions could be conducted much better by an association than by private individuals.

If any of your readers feel interested in the formation of such an association, I shall be glad if they will communicate with me by letter at 7, King-street, Snow-hill, City, E.C.

I am, &c., George Brown,
London, November 2. M.R.C.S. and L.S.A.

Congenital Absence of the Bladder without Incontinence of Urine.—At a recent meeting of the Société de Chirurgie, M. Fleury communicated a curious case of a young girl who was, only some months before her death, the subject of incontinence of urine. Having died from peritonitis, which supervened on simple urethral catheterism, it was found at the autopsy that there was a complete absence of the bladder. M. Fleury put the question how it came to pass that this evidently congenital absence of the organ had not been accompanied also by a congenital incontinence of urine. No reply was made to what must be admitted to be a very difficult query.—*Union Méd.*, October 31.

## REPORTS OF SOCIETIES.

### OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 7.

Dr. E. J. Tilt, President, in the Chair.

The following gentlemen were elected Fellows of the Society:—William Clair, M.D. (Jedburgh); W. A. FitzRayne, L.S.A.; E. L. Kock, M.D. (Ceylon); James Loutitt, M.D. (Greenwich); W. H. Roots, M.R.C.S. (Kingston); and A. R. Ticehurst, M.R.C.S. (St. Leonard's).

Ladies' Garment Suspender.

Dr. Tilt exhibited some braces introduced by an American firm into this country under the name of "Ladies' Garment Suspender." They consisted of elastic webbing, similar in construction to the ordinary braces, but having hooks attached to the extremities, so that the skirts could be readily fastened on to the braces. They were of great service in many cases where the pressure of the clothes on the lower part of the abdomen produced much inconvenience. They were very simple in construction, and well adapted for the purpose for which they were designed.

Uterine Fibroid.

Dr. Potter and Dr. J. C. Hayes reported that the specimen exhibited by Dr. Daly at a former meeting consisted of an interstitial fibroid tumour embedded in the uterine tissue of the body and fundus. From the posterior wall of the cervix, extending from the external to a little beyond the internal os, a ragged, soft, and very lacerable growth was seen to be sprouting. Nearly the whole of the anterior wall of the cervix had been destroyed by ulceration. The vagina was quite free from disease. The left ovary was enlarged to the size of a hen's egg. The microscopical appearances of the growth in the cervix were those of medullary cancer undergoing rapid fatty degeneration. The uterine fibres lying nearest the mucous membrane were packed with small round cells, whereas the fibres on the posterior surface of the neck were healthy. The cancer seemed to have originated in the mucous membrane of the neck.

Dr. Dayley remarked that the case afforded an important hint for treatment. Any operative procedure would probably have been attended by a fatal result.

Dr. Hayes thought any operation would have been impossible. Had the uterus been dilated the tumour would not have sloughed out. He regretted there had not been a fuller report of the post-mortem. The urgent vomiting seemed to point to cancer elsewhere.

Dr. Meadows inquired how near the tumour was situated in reference to the peritoneal surface.

Dr. Hayes replied, within a quarter of an inch, and that the tumour was of the size of a small apple.

Dr. Rogers thought from the fact of the patient losing blood, and a fibroid tumour being diagnosed, there was no harm in proposing dilatation or incision. He himself had frequently applied bromine internally, and destroyed malignant growths. He considered Dr. Wynn Williams perfectly justified in proposing an operation.

Dr. Hayes alluded to a case where the neck was removed, but the remainder of the cervix was infiltrated with malignant cells.

Dr. Wynn Williams stated that he had seen the patient during life, and had proposed that if the patient rallied from the effects of the hæmorrhage he would see what could be done by dilatation in arriving at a more precise diagnosis, and proceed to operation if deemed advisable.

Relation between Congestion and Flexion of the Uterus.

Dr. John Williams read a paper "On the Relation between Congestion of the Uterus and Flexion of the Organ." Different and even opposing views are held upon this subject. 1. It is held on the one hand that congestion is the primary morbid condition of the uterus, and that flexion follows as its consequence. 2. On the other hand, it is maintained that flexion is the primary morbid state, and that congestion is brought about by it. A third view may be adopted—viz., that the two conditions bear no relation of cause and effect to one another, though they frequently co-exist in the same organ. After discussing at some length, in a very able and exhaustive paper, the various opinions, the author thus summarises his conclusions:—There is no evidence to show that a

physiologically increased flow of blood through the uterus occurring periodically, or that erections of the uterus, favour or cause chronic congestion of the organ. Exposure to cold during a menstrual period is not a common cause of congestion of the uterus. Simple congestion is a rare affection of the virgin uterus. Flexion, or flexion accompanied by congestion, is not an uncommon affection of the organ in its virgin state. The effects of congestion on the uterus are, at first, slight enlargement through distension of its vessels, then slight softening from exudation into its tissue, and lastly enlargement of the organ and induration of its tissue. The increase in weight of the body of the virgin uterus arising directly from congestion is probably equal to about the weight of two drachms of blood. The effects of congestion on the uterus are such, that it is not possible for such a small force as the weight of two drachms of blood to produce flexion of the organ. The condition of the uterus from the time of impregnation to the fourth month of gestation militates strongly against the view that congestion is a cause of flexion. The effects of flexion on the uterus are occlusion of its canal, leading to dilatation of its cavity and congestion and thickening of its walls, just as obstruction to the exit of material from all hollow muscular organs causes dilatation and hypertrophy of those organs. The increased flow of blood through the flexed uterus just before menstruation does not diminish but increase the flexion. Simple flexion of the uterus gives rise to congestion and hypertrophy of the cervix by compressing the venous plexus around the insertion of the vagina into the uterus. In retroflexion the body of the uterus and the veins of the broad ligament may be grasped by the sacro-uterine ligaments, and thus become greatly congested.

Dr. Tilt thought the author had well explained the mechanism of uterine congestion by flexion of the womb, but he maintained that something more than flexion—some diseased condition of the uterine tissues—was required to account for uterine congestion and its frequent consequences, otherwise it would not so frequently occur that the cure of the uterine disease permitted patients to take an active part in all social duties, although the womb remained considerably retroflected. Dr. Tilt, still believed with Roget, that normal menstruation congested the womb, and he stated that many cases had been recorded in which the whole structure of a menstruating uterus had been found gorged with blood, as in Dr. Hayes's case. Dr. Tilt argued that in many cases of uterine disease menstrual molimen was seldom absent, and that there ensues a considerable amount of permanent softening of the body of the womb, while the cervix retains its usual firm consistency. Under such circumstances, it is easy to understand that some internal pressure should bend the overweighted body of the womb on its neck; and he argued that the frequent disappearance of marked uterine flexion after the cure of uterine congestion and ulceration, by leeches, cooling injections, and caustic treatment, showed these morbid conditions to have been the real cause of the flexion. Dr. Tilt considered that nothing could be more dangerous to sound practice than to attach too much importance to flexion of the uterus as a factor of disease; that to accept it as the common cause of uterine congestion was actually to make it the keystone of uterine pathology; and that the inevitable result would be the general resort to pessaries in the earliest stages of uterine affections, and to their almost necessary aggravation thereby; and he concluded by strongly urging that, whatever else amiss about the womb besides its state of flexion, should be cured by preliminary treatment, before resorting to mechanical measures.

Dr. Barnes thought the paper was an able analysis of the doctrines held on this point. He must demur to the statement that the profession was divided into two camps—in one the flexion, and in the other congestion preceding; there may be a third, admitting that both may be right. The tendency was to receive one idea, and to be satisfied by it, the mind not being able to receive both. Truth was never antagonistic. As to inflammatory conditions leading to flexions, no doubt they arose after labour from enlargement and subinvolution, and flexion or version ensued. He did not see why congestion should not cause it; but as to flexion preceding congestion, the former exists in the virgin state, before any physiological changes have taken place in the uterus. The flexion may favour congestion, it is true, but we see numerous cases of dysmenorrhœa where we cannot fairly put it down to one or the other condition, the congestion being often due to constriction of the lower part of the cervix.

Dr. Williams had not gone on with his argument. There was an old theory in medicine that treatment sometimes proved pathology, and is the test of it. When we apply treatment to relieve the secondary engorgement and inflammation, we also find the flexion or version relieved. It is not a question of a scientific mode of reasoning, but confirming theory by practice. The paper was a clear and well-reasoned-out statement of this matter.

Dr. Bantock thought there was one point that had been missed—the effect of cold in repressing the catamenia. He had seen numerous cases where serious consequences had ensued from this cause. In one instance a young lady, being perfectly ignorant of the subject, took a cold bath on the appearance of the first catamenia, and checked the flow for twelve months, headache, nervousness, and other symptoms ensuing. Profuse menstruation then recurred, followed by such scanty discharge as scarcely to justify the name of catamenia; excessive tenderness and enlargement of the uterus pointing out clearly the effect of cold in inducing inflammation.

Dr. Braxton Hicks, though agreeing with Dr. Williams, had seen congestion as a product of flexion. There was still another fact to be remembered—flexion persisting, and congestion then occurring. The latter was kept up by the flexion. Flexion itself was common, and yet there were no symptoms; therefore we could not look upon flexion as producing any congestion; but where flexion existed and congestion occurred then we got all the symptoms described. Congestion was relieved entirely by replacing and supporting the uterus.

Dr. Playfair thought no one could doubt the value of the paper. The question at issue often led to errors of practice and injury by treatment. He did not quite agree with Dr. Williams. We meet with cases where congestion exists, but it is impossible to treat the flexion; but by relieving the congestion, by leeching, etc., the flexion disappears. He agreed with Dr. Williams that in the vast majority of cases pessaries were necessary; but often by relieving the congestion the flexion disappeared. The observations of Dr. Braxton Hicks were of great importance. Flexion exists, though not often seen, as no symptoms declare it; but in cases of sterility patients present themselves to know why they do not conceive, flexion being present and yet no inconvenience whatever being complained of. There were numbers going about who never apply for treatment. As regards mechanical treatment, he thought more highly of it than formerly, since perusing Dr. Graily Hewitt's work; and it was likely to lead to beneficial results. It was true the introduction of the uterine sound often produced inflammatory mischief if used incautiously.

Dr. Braxton Hicks remarked that the employment of the uterine sound for redressing the retroflexed uterus was unnecessary, the postural treatment and the pessary being all that was necessary.

Dr. Wynn Williams alluded to a case where all the troubles dated from a fall; there was no anteflexion until the fall, which set up inflammation, and contraction of one side ensued, producing flexion. Some authors assert that every unimpregnated uterus is anteflexed; some portion of the catemenia becomes retained, which excites inflammation; the flexion becomes increased. Flexion may precede congestion and cause it; in other cases the congestion causes the flexion. He had grave doubts if any severe flexion could be removed by treatment. Give the uterus rest, and congestion and inflammation would subside.

Dr. Gervis remarked that his experience coincided with Dr. Playfair's. He met frequently with cases where flexion and congestion existed together. The latter was relieved by nitrate of silver, etc., applied to the interior of the uterus, and the version passed away without the employment of a pessary at all. In cases of sterility it was not at all infrequent to find the catamenia regular and no uterine disturbance whatever, and yet flexion existed.

Dr. Williams stated that he did not allude to versions, only to flexions.

Dr. Hayes observed that there were many points discussed by Dr. Williams, some of which were open to question. He stated that in case of menstruation the whole uterine organ did not undergo congestion. In the mid period congestion occurred when the mucous membrane was being formed. In a case recently noticed the ovaries and ligaments were engorged with blood, as also the body of the uterus; the mucous membrane was reddish and disintegrating, a small clot being present in the upper part of the uterus. It was a question whether the menstrual nisus caused sufficient congestion to lead to flexion. It often happened that a patient had a larger discharge

than usual at the menstrual period, was suddenly seized with violent pain, which passed off; at the next period the pain returned, and, on examination, the uterus would be found to be enlarged and partially fixed. This would be ascribed to hæmatocele, but it might be pelvic cellulitis. In cases of prolapsus with retroflexion we get hypertrophy of the neck and elongation, due, according to Dr. Barnes, to bruising during labour. If, on examining a patient, we find flexion, where no symptoms are present, why should we interfere or tell the patient?

Dr. Williams, in reply, stated that when the uterus was enlarged after labour the fundus projected out of the pelvic into the abdominal cavity. The force of the diaphragm acting on the posterior surface produced anteflexion, or retroflexion might be produced by slight exertion, such as getting out of bed; the fundus was driven by the action of the abdominal muscles under the sacral promontory, and the organ on account of its size became fixed in that position, permanent retroflexion being the consequence. He did not dispute the fact that exposure to cold during the menstrual flow caused congestion of the uterus, but according to his experience it was not of common occurrence. That there was a third factor between flexion and congestion he had no doubt. In cases of retroflexion that factor is the constriction caused by the retro-uterine ligaments; in other cases it is the constriction of the uterine canal at the point of flexion. The menstruating uterus referred to by Dr. Hayes was, I believe, taken from the body of a woman who died of "acute blood poisoning," and cannot be taken as the condition usually present. The object of the paper was to show the relation that may exist between the two conditions, not to prove that flexion was the only cause of congestion. The uterus that remains enlarged after labour is not merely congested, but hypertrophied, involution not being properly completed. In considering the relation between congestion and flexion, we should study the subject in the virgin uterus, where simple congestion is never met with.

### A Case of Ileo-Cæcal Intussusception in an Infant of Eight Months.

Dr. Madge related the particulars of a case where much straining, with the passage of pure blood per rectum, led to the supposition that intussusception had taken place. Death occurred suddenly, and on a post-mortem examination a portion of the ileum with a great deal of the large intestine was found to be completely invaginated in the remaining portion of the canal. The supposed cause of the mischief was an excessive amount of tossing and romping to which the child had been subjected.

Dr. Playfair inquired if the presence of a distinct tumour or swelling at the point of invagination had been detected. A bold and early operation of gastrotomy might have saved the life of the patient. He referred to a case in which there was a distinct loss of blood per anum. Gastrotomy was proposed, but one or two eminent surgeons declined to sanction the operation. The tumour increased, and the patient died. Had an operation been performed at first the invagination might, no doubt, have been removed. It was one of those points in which practical surgery led to happy results. He had tried inflation successfully in one case, in which the patient died three months after from a second attack, and the correctness of the opinion was confirmed post-mortem.

Dr. Brunton had seen several cases in which the tumour was very manifest, a knob of bowel being detected in the neighbourhood of the umbilicus. Injection of air, and also water, had been tried unsuccessfully. Opium in drop doses often proved of great service.

Dr. Hayes agreed with Dr. Playfair in the advantage of an operation. In the case of an infant seven months old inflation was unsuccessful; the child died, and on a post-mortem examination no adhesions were found. Had an operation been performed it would probably have been successful.

Dr. Gervis inquired if the application of ice had been tried. He cited one case where this was done; the tumour disappeared, and the child recovered.

Dr. Rasch alluded to the case of one of the watchmen at Vienna having passed several feet of intestine per anum, and yet recovered.

Dr. Wynn Williams referred to several cases published in the *Medico-Chirurgical Transactions*.

## OBITUARY.

### EDMUND SNELL, M.R.C.S. Lond., L.R.C.P. Edin.

The late Dr. Edmund Snell was a native of Cornwall. Having received his early education in that county, he came to London, and entered at the Charing-cross Hospital and the Charlotte-street School of Medicine. During his stay at these institutions, which was from 1841 to 1845, he won for himself the respect of all the professors connected with them. Having obtained his diploma, he returned to his native part and practised there for a short time, but wishing to settle in London, went to Mile-end, and took the old-established practice of the late G. E. Carruthers, Esq., where he continued for twenty-seven years. Dr. Snell was a Fellow of the Obstetrical Society of London. He died on the 26th ult. at the early age of fifty-three years, leaving a wife and son and a large circle of friends to mourn his loss.

### MICHAEL GALEANI, M.D.,

One of the oldest members of the Army Medical Service, died at Walton-place, on the 27th inst., in his eighty-fourth year. He entered the Service on November 2, 1812.

### THOMAS ANDERSON, M.D., F.R.S.E.

The death of Dr. Anderson, M.D., F.R.S.E., took place at Chiswick on Monday last. He occupied the chair of Chemistry for many years in the University of Glasgow, but which he was compelled to resign by the gradual increase of a fatal complaint. He was a Keith Medallist of the Royal Society of Edinburgh, a Royal Medallist of the Royal Society of London, and he enjoyed several other distinctions.

## MEDICAL NEWS.

Royal College of Physicians of London.—The following gentlemen were admitted Fellows on October 29:—

Carter, Thomas Albert, M.D. Edin., Leamington.
Green, Thomas Henry, M.D. Lond., 74, Wimpole-street, W.
Robertson, William Tindal, M.D. Edin., Nottingham.
Robinson, Frederick, M.D. St. And., 47, Claverton-terrace, S.W.

The following gentlemen, having passed the required examination, were admitted Members of the College on the same day:—

Ewart, William, L.R.C.P., 20, Leinster-square, W.
Godson, Clement, M.D. Aberd., 8, Upper Brook-street, W.
Greenfield, William Smith, M.B. Lond., 93, Wimpole-street, W.
Johnston, James, M.B. Lond., Birmingham.
Mahomed, Frederick Henry Horatio Akbar, London Fever Hospital, N.
Newman, Alfred Kingcome, M.B. Aberd., Guy's Hospital, S.E.
Sawyer, James, M.D. Lond., Birmingham.

The following gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were admitted Licentiates of the College on the same day:—

Alderton, Thomas Gunton, West London Hospital, W.
Andrews, Samuel, New Southgate, N.
Byrne, John Joseph, Cheetham, Manchester.
Edwards, Octavius, Chaxhill Lawn, Gloucester.
Forty, Daniel Herbert, Guy's Hospital, S.E.
Hall, Frank Algernon, St. Bartholomew's Hospital, E.C.
Jalland, Robert, Horneastle.
Lamb, William Henry, Guy's Hospital, S.E.
Payne, Henry Peter, Bournemouth.
Roeckel, Waldemar Joseph, Royal United Hospital, Bath.
Stephens, Augustus Edward Richard, General Hospital, Cheltenham.
Tyson, William Joseph, Guy's Hospital, S.E.

The following candidate, having passed in Medicine and Midwifery, will receive the College licence on his obtaining a qualification in Surgery recognised by this College:—

Hobson, John Morrison, 12, Wynell-road, S.E.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 29:—

Collier, Alfred Henry, Westminster Hospital.
Treharne, John Llewellyn, Weston-super-Mare.

The following gentlemen also on the same day passed their primary professional examination:—

Baker, Benjamin Russell, St. Thomas's Hospital.
Hallowes, Miller Coleman, St. Bartholomew's Hospital.
Lory, William Manley, University College.

At the recent examination for the prizes in Materia Medica and Pharmaceutical Chemistry, a silver medal and a book were

awarded by the Society to John Davies, student of Guy's Hospital, for his proficiency in those subjects.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARK, ERNEST O., L.R.C.P. Lond., M.R.C.S. Eng.—Resident Medical Officer at the City of London Hospital for Diseases of the Chest.

COLLES, ABRAHAM, F.R.C.S.I., M.B. Dub.—Medical Officer of District No. 3 and the Workhouse of Bridgnorth Union, *vice* Dr. Roe, deceased.

DONKIN, N. B., M.A., M.B. Oxon.—Assistant-Physician to the Westminster Hospital, *vice* Sir George Duncan Gibb, Bart., appointed Physician.

DUDLEY, REGINALD, M.R.C.S., Eng.—Medical Officer for the Kirkoswald No. 1 District of Penrith Union.

FENWICK, J. C. J., M.D. Camb., M.R.C.P.—Physician to the Belgrave Hospital for Children.

FINLAY, DAVID W., B.A., M.D., C.M.—Resident Obstetric Assistant at the Middlesex Hospital.

GIBB, SIR GEORGE DUNCAN, M.A., M.D., M.R.C.P.—Physician to the Westminster Hospital, *vice* Dr. Anstie, deceased.

HALES, MARK, L.R.C.P. Edin., L.F.P.S. Glasg.—Medical Officer to the Polesworth District of Atherstone Union.

LENDON, E. H., M.R.C.S., M.B.—Resident Physician's Assistant at the Middlesex Hospital.

MOORHEAD, ROBERT L., M.D., L.R.C.S., L.M.—Assistant-Surgeon to the Derby Amalgamated Friendly Societies' Medical Association, *vice* Mr. J. Ewart, resigned.

SHARP, HENRY, M.R.C.S., L.S.A.—Medical Officer for Blackpool District of Fylde Union, Lancashire.

## BIRTHS.

BIDDLE.—On November 3, at Kingston-on-Thames, the wife of Daniel Biddle, M.R.C.S. Eng., L.S.A., of a son, stillborn.

BLOMFIELD.—On October 27, at 20, Rye-lane, Peckham, S.E., the wife of J. Blomfield, M.D., F.R.C.S., of a son.

BODINGTON.—On October 17, at Ashwood House, Kingswinford, Staffordshire, the wife of G. F. Bodington, M.D., F.R.C.S., of a daughter.

BUCHANAN.—On October 31, at Gibraltar-place, Chatham, the wife of Walter Buchanan, M.R.C.S., of a daughter.

CHARLTON.—On October 27, at 17, Norfolk-street, Park-lane, the wife of Egbert Charlton, M.D., of a son, stillborn.

LEWIS.—On October 29, at 73, Albert-street, Regent's-park, the wife of Louis Lewis, M.D., of a son.

MARTIN.—On October 31, at Cambridge House, Portsmouth, the wife of John Henry Martin, M.D., of a son.

SLIMON.—On October 31, at Mare-street, Hackney, the wife of George C. Slimon, M.D., of a daughter.

## MARRIAGES.

FLOOD—MUIR.—On October 29, at St. John's Church, Greenock, Alexander William Flood, L.K.Q.C.P.I., M.R.C.S.I., R.N., son of Alexander Flood, M.D., of Danesfort, Enniskillen, to Jessie Macleod Muir, daughter of Richard Muir, Esq., of Oakbank, Greenock.

HUMPHREYS—BROWN.—On October 28, at Normanton parish church, R. W. Humphreys, M.R.C.S., of Clydach, South Wales, to Mary Hannah, daughter of the late W. H. Brown, Esq., of Wakefield.

SKILLER—MOYCE.—On October 27, at St. Peter's Church, Brighton, Wm. Skiller, of Hastings, to Louisa Mary, youngest daughter of the late Stephen Moyce, Esq., L.S.A., Rotherfield.

STANTON—COBBE.—On October 27, at St. Stephen's, Bayswater, Horace Hale, second son of Alexander Stanton, Esq., of Rock Ferry, Cheshire, to Florence Anne, second daughter of the late Charles Cobbe, M.R.C.S., of Wimpole-street, Cavendish-square, W.

WHITTEN—CHAPLEN.—On October 27, at the parish church, Stepney, William John Whitten, L.S.A., of Commercial-road, E., to Sarah Anne, only daughter of the late James Chaplen, Esq., of Stepney.

## DEATHS.

ANDERSON, THOMAS, M.D., late Professor of Chemistry in the University of Glasgow, at Chiswick, on November 2, aged 55.

GALEANI, MICHAEL, M.D., late Surgeon 46th Regiment, at his residence, 6, Walton-place, Sloane-street, London, S.W., on October 27, in his 84th year.

HUGMAN, WILLIAM, M.R.C.S., eldest son of W. C. Hugman, F.R.C.S., Guildford-street, Russell-square, at Schietfontein, Victoria West, South Africa, on September 20, aged 26.

KYNSEY, THOMAS BRETT, M.D., J.P., at his residence, Athy, Ireland, on October 28, aged 74.

SNELL, EDMUND, L.R.C.P. Edin., M.R.C.S. Eng., at his residence, 59, Stepney-green, London, on October 26, aged 53.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN-ROAD.—Assistant-Surgeon. Candidates must be F. or M.R.C.S. or C.M. of one of the Universities of the United Kingdom. Applications, with testimonials, to the Secretary, on or before November 7.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be M.R.C.S., and registered under the Medical Act. Applications, with testimonials, to Mr. J. Bullivant, 58, Abbey-street, Derby, on or before November 16.

DISTRICT INFIRMARY, ASHTON-UNDER-LYNE.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, on or before December 14.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, RATCLIFF-CROSS, E.—Resident Medical Officer. Candidates must be fully qualified in medicine and surgery, and be unmarried. Applications, with testimonials, to the Secretary, on or before November 9.

EAST SUSSEX, HASTINGS, AND ST. LEONARD'S INFIRMARY.—Assistant-Surgeon. Candidates must be F. or M.R.C.S. Applications, with testimonials, to the Secretary, Mr. W. J. Gant, Hastings, on or before November 12.

EVELINA HOSPITAL, SOUTHWARK-BRIDGE-ROAD, S.E.—House-Surgeon. Candidates must possess a recognised qualification. Applications, with testimonials, to the Committee of Management, on or before Nov. 20.

HUDDERSFIELD INFIRMARY.—House-Surgeon. Candidates must be fully qualified, and unmarried. Applications, with testimonials, to the Secretary, on or before November 23.

NORTH WALES COUNTY LUNATIC ASYLUM.—Medical Superintendent. Candidates must be duly qualified, and possess a knowledge of the Welsh language. Applications, with testimonials, to Mr. J. Robinson, Clerk to the Visitors, on or before November 12.

PARISH OF LAMBETH.—Medical Officer for the Infirmary. Candidates must be qualified according to the Orders of the Local Government Board. Applications, with testimonials, to Mr. W. B. Wilmot, Guardians' Board-room and Offices, Pleasant-place, Brook-street, Kennington-road, S.E., on or before November 9.

QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Secretary and General Superintendent. Candidates must be unmarried. Applications, with testimonials, to the Chairman of the House-Committee, at the Hospital, on or before November 25.

SEAMEN'S HOSPITAL, GREENWICH.—Visiting Surgeon. Candidates must be F.R.C.S. Eng. Applications, with testimonials, to the Secretary, on or before November 7.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to Mr. J. Barber, 41, John Dalton-street, Manchester, on or before November 13.

TRINITY COLLEGE, DUBLIN.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Frome Union.*—Mr. James F. Smith has resigned the Kilmersdon District; area 9024; population 3680; salary £70 per annum.

*Lexden and Winstree Union.*—The Second District is vacant; area 5760; population 3981; salary £36 per annum.

*Louth Union.*—Mr. Fredk. Hay has resigned the Hainton District; area 3983; population 583; salary £8 per annum.

### APPOINTMENTS.

*Bedminster Union.*—George B. Butter, L.R.C.S. Edin., L.S.A., to the Eighth District.

*Builth Union.*—John F. Herring, L.R.C.P. and L.R.C.S. Edin., to the Builth District.

*Castle Ward Union*—Alex. D. Fraser, M.B. and C.M. Edin., to the Ponteland District and the Workhouse.

*Eton Union.*—Philip Addis, L.R.C.P. Edin., M.R.C.S. Eng., to the Iver District.

*Ludlow Union.*—John A. T. Cartwright, M.R.C.S. Eng., L.S.A., to the Leintwardine District.

*Luton Union.*—Albert Hind, M.R.C.S. Eng., L.S.A., to the Barton District.

*Newmarket Union.*—Clement F. Gray, M.R.C.S. Eng., L.S.A., to the Workhouse.

*St. Marylebone Parish.*—Norman S. Kerr, M.D., C.M., F.L.S., to the Christchurch District.

*Stamford Union.*—Fergus M. Brown, L.R.C.P. Edin., L.F.P. and S. Glasg., to the Wansford District.

*Weardale Union.*—Robert T. Beamish, M.D., M.Ch. Queen's Univ. Ire., to the Derwent District.

*Wakefield Union.*—John S. Brookfield, M.D. and C.M. Edin., M.R.C.S. Eng., to the Emley and Flockton Districts. Wm. J. Lorraine, M.R.C.S. Eng., L.R.C.P. Edin., to the East Ardsley District. Duncan Macarthur, L.R.C.P. Edin., L.F.P. and S. Glasg., to the Stanley-cum-Wrenthorpe District.

THE Cardiff Board of Guardians have increased the salary of the Medical Officer of the Workhouse and Schools from £104 to £120 per annum.

THE Llandudno Urban Sanitary Authority have increased the salary of Dr. Nicol, the Medical Officer of Health, from £25 to £50 per annum.

A BAZAAR and fancy fair was opened last week at Brighton in aid of the fund to liquidate a debt of about £2500 on the Brighton Hospital for Sick Children.

IT has been resolved by the Vestry of St. Pancras to apply to Parliament for a Bill to enable the church trustees of that parish to preserve the old churchyard as an open space and an ornamental garden.

SCHOOL OF MEDICINE, LEEDS.—The number of new entries is nineteen. The total number of students on the books is seventy-five.

APOTHECARIES' HALL.—The following questions were given in the examination paper for prizes in materia medica and pharmaceutical chemistry on Wednesday, October 21, 1874:—1. Describe the preparation of the following substances, and explain the principles on which the process is founded in each case, viz.:—Acidum tartaricum, acidum tannicum, æther, bismuthi carbonas, potassa sulphurata, quiniæ sulphas, sodæ arsenias, sulphur præcipitatum, syrupus ferri iodidi, zinci valerianas. 2. Specify the composition of the following preparations and the proportionate quantity of the more important ingredients in each, viz.:—Vinum antimoniale, pulvis cretæ aromaticus cum opio, pulvis ipecacuanhæ compositus, pulvis kino compositus, liquor lithiæ effervescens, liquor strychniæ, pilula conii composita, pilula assafœtidæ composita, pilula saponis composita, trochisci ferri redacti, trochisci morphiæ. 3. Describe the medicinal substances obtained from the following plants and animals, with the uses, doses, and modes of administration of each substance, viz.:—*Cantharis vesicatoria*, *Nectandra rodiæi*, *Brayera anthelmintica*, *Asagræa officinalis*, *Vitis vinifera*, *Bos taurus*, *Ecbalium officinarum*, *Digitalis purpurea*, *Castor fiber*, *Moschus moschiferus*, *Claviceps purpurea*. 4. Give a detailed description and classification of purgative medicines, specifying the particular cases in which each should be used, or the cases in which none should be used at all, the structures on which each of them acts, and the theory of their action.

COLLODION IN CERVICAL ADENITIS.—Dr. Tournié strongly recommends the application of flexible collodion when the superficial cervical glands are enlarged and threaten suppuration, and the skin over them is inflamed. The inflamed region is painted over with a double layer, and an additional layer is added during each of the next three or four days. The application is of no use in deep-seated adenitis, nor when the glandular swelling assumes a chronic form without heat and redness of the skin. The object is to prevent the formation of abscess, and when this has actually formed the application is useless.—*Union Med.*, October 10.

DOCTORS AS PATIENTS.—These are proverbially difficult persons to manage, and many medical men who become the subjects of disease inflict great injury upon themselves in consequence of their procrastination (a fault which they are always cautioning their own patients against) in seeking for relief. A Berlin medical journal states that the distinguished clinical professor, Dr. Traube, is now confined to his bed by one of his frequently recurring attacks of asthma. The cause of the disease has never been ascertained, in consequence of the horror the distinguished Professor has of submitting to any examination. It has also been observed, singularly enough, that many practitioners have an objection to having autopsies performed upon themselves, so that several of these have died without the real nature of their disease being known.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN OCTOBER, 1874.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

| Names of Water Companies. | Total Solid Matter per Gallon. | Oxygen required by Organic Matter, &c. | Nitrogen. | | Hardness. | |
|---|---|---|---|---|---|---|
| | | | As Nitrates &c. | As Ammonia. | Before Boiling. | After Boiling. |
| *Thames Water Companies.* | Grains. | Grains. | Grains. | Grains. | Degs. | Degs. |
| Grand Junction | 17·33 | 0·048 | 0·115 | 0·002 | 13·7 | 3·3 |
| West Middlesex | 16·50 | 0·030 | 0·116 | 0·000 | 13·4 | 3·0 |
| Southwark & Vauxhall | 17·16 | 0·068 | 0·128 | 0·002 | 14·0 | 3·3 |
| Chelsea | 17·43 | 0·041 | 0·124 | 0·001 | 13·7 | 3·3 |
| Lambeth | 17·49 | 0·049 | 0·115 | 0·001 | 13·8 | 3·3 |
| *Other Companies.* | | | | | | |
| Kent | 27·67 | 0·002 | 0·238 | 0·000 | 20·7 | 5·8 |
| New River | 17·29 | 0·015 | 0·114 | 0·000 | 13·4 | 3·0 |
| East London | 15·87 | 0·029 | 0·128 | 0·002 | 13·0 | 3·0 |

*Note.*—The amount of oxygen required to oxidise the organic matters nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in those of the Grand Junction, the Lambeth, and the Southwark and Vauxhall Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 120,871,501 gallons; and the number of houses supplied was 512,825. This is at the rate of 35·5 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 28·5 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

THE SUNDAY QUESTION.—A recent prize question issued from a society at Geneva, "On the Utility of the Sunday as a Day of Rest for the Working Classes in a Hygienic Point of View," having called forth fifty essays in German, French, and English—amounting altogether to at least 3000 pages of manuscript,—the judges announce, in the prospect of the laborious undertaking which lies before them in the perusal of these lucubrations, that many months must pass before they can give their decision.

A VIABLE INFANT WEIGHING ONE POUND AND THREE-QUARTERS.—Dr. Mursick, of Nyack, New York, relates the case of a primipara who was delivered of a seven-months infant which was well formed and healthy, but only weighed one pound and three-quarters. As the mother had no milk the infant was brought up by the bottle, and at the time of the report was more than three months old, in a thriving condition, and weighed three pounds and a quarter.—*Amer. Jour. Med. Science*, October.

CASE OF CREMATION.—During the recent meeting of the German *savants* at Breslau, Prof. Reclam delivered a lecture on cremation, and after its conclusion, in the presence of a large concourse, a human body was burned in an old gas retort. The body weighed 70 lbs. (German), and one hour and ten minutes were required for its complete combustion, this having been somewhat impeded by the repeated opening of the oven-door for the purpose of inspection. The remains of the entire body weighed three pounds, and the cost of the process was only a few pence for coke. No trace of disagreeable smell could be perceived.

FROM the formation and position of the heart, it is obvious that, though we can and may percuss out the whole of the cardiac dulness, this is quite unnecessary; it is only of importance to ascertain its greatest extent of dulness vertically and transversely. Increase of the vertical dulness rarely indicates any alteration in the size of the heart itself, but is usually either due to hepatic enlargement, readily ascertained by an extension of these exploratory methods to the liver itself, or to pericardiac effusion—the former dulness, as a rule, extending below the sixth rib, the latter above the third; while a simple change of position of the heart, which may arise from various causes, is indicated by a transference of the normal dulness upwards or downwards, without any change in its extent. The apex-beat, except in certain abnormal conditions, is, from the formation of the heart, the part which extends farthest to the left, and being, as a rule, perceptible to the touch, only requires to be percussed out in those exceptional circumstances where the true apex beats beneath a rib, and not in an interspace. The right auricle is, of course, that part of the heart which extends farthest to the right, and being extremely dilatable, and readily influenced by any obstacle to the onward flow of the blood, transverse dulness about the level of the fourth rib comes to be an important indication of some obstacle to that onward flow, and therefore of enlargement of the heart chiefly in its auricular region. These, therefore, are the chief points in regard to which we look for important information from the percussion of the cardiac dulness. Increase of dulness above the third rib indicates, as a rule, pericardiac effusion. Increase of the transverse dulness at the level of the fourth rib indicates obstruction to the circulation. If the apex-beat be displaced to the left and downwards, the obstruction is probably aortic, and has primarily influenced the left ventricle; if the apex-beat be not displaced downwards, the obstruction is either mitral or pulmonary in its origin.—"*On the Diagnosis of Disease of the Heart*," *by George W. Balfour, M.D., F.R.C.P.E.* (*Edinburgh Medical Journal, June*, 1874).

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*A Nine Years' Subscriber.*—We hardly think it is safe for the mother to run such risk.

*F. J. de L.*—Apply to the lady superior of any of the nursing sisterhoods, or the head of the Nightingale Nursing System, St. Thomas's Hospital.

*Dr. Bell Taylor.*—The question has been so often argued that it is hardly worth while entering on the subject again.

*W. S. G.*—In the Registrar-General's Quarterly Report, ending June last, among the watering-places Brighton is accorded a place in the first class on the health scale.

*Anthony P. F.*—Southey said—"Man is a dupeable animal. Quacks in medicine, quacks in religion, and quacks in politics know this, and act upon that knowledge. There is scarcely anyone who may not, like a trout, be taken by tickling."

*A. K., St. George's Hospital.*—The Thomas Copeland alluded to in our biographical notice of the late Mr. Swan was elected a member of the Council of the Royal College of Surgeons in 1827. He married the daughter of Mr. Adair Hawkins, a sister of the benevolent and well-known Dr. Bisset Hawkins. Mr. Adair Hawkins was the godson of Mr. Sergeant Surgeon Adair, "the favourite of princes, of women, and of men," who married a daughter of the Earl of Albemarle.

*Lex, Barnet.*—The disgusting pamphlet of George Washington Evans has already been before the Council of the College of Surgeons, when he promised to withdraw it from circulation. The next copy you receive by post, send book and envelope (as showing the date) to the Secretary of the College of Surgeons. The title of "LL.D." you can obtain on the same terms by simply sending a cheque to the agent.

*G. Q.*—

"He was but born to try
The lot of man—to suffer and to die."

*Alpha, Westminster Hospital*, complains of the sharp touting for subscriptions to the Anstie Testimonial, having had a card given to him personally for that purpose and another having been sent to his lodgings, and mentions the old theatrical joke of the veteran Doughton, who could not see why he should be *bled* to *cup* Kean.

*Dr. Malcolm.*—The last number of Messrs. Barraud's "Medical Profession of all Countries" contains an excellent portrait and memoir of the late Dr. Anstie. The portraits of the late Dr. Lankester and Mr. Cutler will appear in the next number. The likenesses, which we have seen, are excellent.

*Tar-Water.*—The tar-water warehouse was in Painter's-court, Bury-street, St. James's.

"O! learned *Berkeley!* who enough can praise
Thy generous labour? thy instructive page
Our steps directing to this source of health.
The fair and beauteous pine in vain had shed
Its precious juice till thou, with curious search,
Explored its virtuous qualities, and taught
Mankind the wholesome secret. Thou hast done
A deed well worthy everlasting fame!"

*P. P., Portsmouth.*—Dr. F. Norton Manning is the Medical Superintendent of the Hospital for the Insane, Gladesville, New South Wales.

*Dr. Malcolm.*—The best life of John Hunter is that by Mr. Drewry-Ottley, where you will find a full account of the lamentable death of the great surgeon, and of the quarrel with his colleagues respecting (as the late Mr. Clift observed) "the division of some miserable, dirty fees," but in which Hunter acted in a strictly honourable manner, as a letter in the possession of Mr. Charles Hawkins indicates, and which, with his kind permission, we publish. It is addressed to Messrs. Gunning, Walker, and Keate, in the following terms:—

"Gentlemen,—On Monday I sent you a letter—the purport of which I need not mention,—and on the same day a gentleman entered with me for six months, although the time of settling was past, and, therefore, whoever entered was to be brought into the next quarter. Yet, to prevent even a shadow of suspicion that I might have pressed back the gentleman's entering till the quarter was over, I have sent the three shares. This is a mere point of delicacy, and unnecessary if every man acted upon strictly honourable terms. "I am your obedient servant,

"Leicester-square, July 11, 1792." "JOHN HUNTER.

*Variola, Camden Town.*—The celebrated Jenner was born in the Vicarage at Berkeley, in Gloucestershire, of which place his father was the incumbent, and where the family had possessed property for many years. He was born in 1749, came to London in his twenty-first year, and lived with John Hunter, whose pupil he was at St. George's Hospital. He married Miss Kingscote in 1788, and died at Berkeley in 1823. His son, Colonel Jenner, presented the hide of the first cow from which Jenner took the vaccine matter to St. George's Hospital, where it may be seen in the museum of that institution. The horns are certainly attached to it, so we cannot inform you what horns may have been presented to the College of Physicians. He took great interest in this hide, and Dr. Barron states that, when asked where he intended it should go, replied "The British Museum"; but it cannot be better located than in his old school of St. George's.

### DR. W. H. ASHLEY.

The professional career of the late William Henry Ashley, M.D., of 28, Ladbroke-square, W., has recently closed, under circumstances which may be permitted to justify, in a more than ordinary degree, the present appeal to the generous sympathy of the medical profession on behalf of the widow and ten children left all but entirely destitute at his decease.

From 1840 to the present year, his course had been that of a medical man in ordinary metropolitan practice, adorned by many sterling qualities, which secured respect and honour from those who knew him; while his exemplary conduct in each relation of life, and his genuine goodness of heart, were shown from time to time by frequent acts of self-sacrificing kindness. But his latter years were clouded by growing infirmity, leading to loss of practice, distressing anxiety, and domestic privation, succeeded finally by insidious and deep-seated disease, which assumed its fatal character during the earlier half of the present year.

Many a brother in his profession will be able to interpret all the unspoken sufferings of such a course and its sorrowful close. Those sufferings were bravely and uncomplainingly borne, and are now at an end; but they plead for sympathy towards the fatherless and the widow, who have shared in the manifold and increasing privations to which allusion has been made while he lived, and are left destitute now he is gone. His failing powers were devoted to the education of his children, and a fund has been opened by their friends in the medical profession to make immediate provision for the wants of the younger ones and for putting the elder sons and daughters forward in life.

Subscriptions will be received and duly acknowledged by the treasurers of the Ashley Fund:—F. Le Gros Clark, Esq., The Thorns, Sevenoaks; Rev. John Philip Gell, Vicarage, St. John's, Notting-hill, W.; George Nelson Emmet, Esq., Solicitor, 14, Bloomsbury-square, W.C.; E. Hart Vinen, M.D., 17, Chepstow-villas, Bayswater; Charles M. Frost, Esq., 47, Ladbroke-square, Notting-hill.

The following subscriptions have been already received:—

| | £ | s. | d. | | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| The British Medical Benevolent Fund ... ... | 20 | 0 | 0 | J. Gregory Forbes, Esq. ... | 3 | 0 | 0 |
| F. Le Gros Clark, Esq. ... | 21 | 0 | 0 | R. King Peirce, Esq., 16, Norland-place ... ... | 3 | 0 | 0 |
| Dr. Waggett ... ... | 5 | 0 | 0 | W. H. Gardner, Esq., 80, Gloucester-terrace ... | 3 | 0 | 0 |
| Dr. Seaton ... ... ... | 5 | 0 | 0 | W. T. Innes, Esq., 37, Ladbroke-square ... | 5 | 0 | 0 |
| C. M. Frost, Esq. ... ... | 3 | 0 | 0 | J. J. Merriman, Esq., Kensington-square ... ... | 2 | 2 | 0 |
| Dr. E. Hart Vinen... ... | 3 | 0 | 0 | J. J. Bartlett, Esq., Notting-hill ... ... ... | 3 | 0 | 0 |
| Mrs. Needes ... ... | 4 | 0 | 0 | Mrs. Dunk ... ... ... | 2 | 0 | 0 |
| J. W. Turner, Esq., F.R.C.S., Kensington ... | 10 | 0 | 0 | | | | |
| Dr. Jackson, Notting-hill-square ... ... ... | 3 | 3 | 0 | | | | |

*Enquirer.*—Mr. Frederick Accum, a chemist, of Old Compton-street, Soho, published a work on adulteration of food, etc., in 1820. The book is now scarce, and to be procured with difficulty. It was the first serious exposure of the system of adulteration carried on at that period in the metropolis. It was entitled "Death in the Pot," and though it attracted considerable attention at the time, it was not productive of any measure to counteract the frauds—often dangerous ones—resorted to by vendors and manufacturers. It embraced a vast number of analyses of various articles of food and drink. The most noteworthy specimens were those referring to articles of confectionery, the colouring matter of which was often of the most poisonous nature, and common chalk with a slight mixture of sugar formed the basis. Twenty years afterwards, Dr. Hassall published his able and elaborate reports on adulteration, and to these we are mainly indebted for the interference of the Legislature in the matter.

*Royal College of Surgeons.*—We have authority for stating that no discussion on the Conjoint Scheme took place on Tuesday last at the above institution—in fact, there was no meeting of the Council on that day, as stated last week by a sharp contemporary, who appears to be napping, judging from another statement in the same article that any old student might "claim the diploma of Membership without passing in medicine"; whereas it is just the reverse, as all candidates for the diplomas of Membership and Fellowship must pass in medicine, unless already in possession of a medical degree or licence. The suggestion that "the Fellows and Members should take steps to make their voices heard within the walls of the College" was discussed some weeks since by Mr. Green in the *Medical Times and Gazette.*

### HOMŒOPATHIC PRACTICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is a simple answer to your correspondent "Junius's" letter on the above subject. Those he calls "homœopaths" are only medical men who hold the homœopathic to be a true therapeutic rule, and who avail themselves of it in cases which in their judgment are likely to be benefited by it; but they do not therefore make a vow to employ none but homœopathic remedies in the treatment of disease. As medical men, the whole field of therapeutics is open to them, and their choice of remedies for every case is dictated by their knowledge and judgment, and not by any fancied obligation to practise according to any one rule. As medical men, even "homœopaths" differ in knowledge and judgment; some may think it necessary to have recourse to what are called "allopathic" remedies, while others, perhaps better acquainted with the resources of homœopathy, might consider the latter preferable. There is no fraud or dishonesty here, only a difference in knowledge or judgment. The practitioner who holds homœopathy to be a true method of cure does not call himself a "homœopath"—that is the nickname given him by your side. When he prescribes a remedy not homœopathic he never would pretend that it was homœopathic. In short, he prescribes what he thinks best for his patient, and troubles himself little whether what he prescribes is homœopathic or allopathic, provided he can do the most good with it. That his judgment is fallible and that he is as liable to make a mistake as his orthodox colleagues is true, and hardly needs the confirmation given by your correspondent in the case he mentions of a practitioner who "nearly finished his patient off" by giving a strong purgative.

The prescriptions given by your correspondent only show that the practitioners who wrote them were not acquainted with any better homœopathic means for effecting their object, and so prescribed on non-homœopathic principles to the best of their judgment. There is no dishonesty or fraud in this. On the contrary, they would have acted dishonestly if, not knowing a homœopathic remedy that would do good, but knowing an "allopathic" one they thought might be useful, they had refrained from presenting the latter from some imaginary obligation to treat only homœopathically. But what appears to me dishonest is for a practitioner to prescribe remedies borrowed from the homœopathic materia medica and on homœopathic principles, while he at the same time joins in the ignoble persecution of his colleagues who openly declare their belief that homœopathy is a true therapeutic rule. Instances of this I have given in the address your correspondent sneers at. I am, &c.,

53, Montagu-square, November 2. R. E. DUDGEON, M.D.

COMMUNICATIONS have been received from—

Mr. G. Gaskoin, London; Dr. F. J. De Lisle, Guernsey; Dr. C. Bell Taylor, Nottingham; Dr. Gairdner, Glasgow; Mr. F. Gordon Brown, London; Dr. E. H. Vinen, London; The Registrar of Apothecaries' Hall, London; Mr. F. Greenwood, Leeds; Mr. J. F. Collingwood, London; Mr. R. J. Godlee, London; The Registrar of the Royal College of Physicians of London; Dr. J. Day, Geelong; Dr. E. F. Wells, Ohio, U.S.A.; Mr. J. Forster, Adelaide; Mr. J. Coey, San Francisco; Mr. W. Jones, London; Dr. Bisset Hawkins, Dorchester; Dr. J. Milner Fothergill, London; Mr. J. L. Davies, Lahore; Mr. A. C. C. De Renzy, Lahore; Mr. Haviland, Northampton; Dr. Eustace Smith, London; Dr. R. E. Dudgeon, London; Mr. T. P. Pick, London; Dr. J. Macpherson, London; Dr. J. H. Aveling, London; Mr. Waren Tay, London; Mr. J. B. Blackett, London; Mr. T. M. Stone, London; The Registraa-General, Edinburgh; Mr. George Brown, London; A Nine Years' Subscriber; Dr. J. W. Moore, Dublin; Mr. F. J. Wilson, London; Mr. W. Reynolds, Bridgnorth; Mr. W. Jones, London; Mr. G. H. Jones, London; The Secretary of Middlesex Hospital; Mr. E. G. C. Snell, London; The Secretary of the General Registea Office, London; Dr. H. Letheby, London; Dr. Dowse, London; Mr. J. Bullivant, Derby; Dr. McIntosh, Edinburgh; Our Edinburgh Correspondent; Mr. James Spence, Edinburgh; Mr. J. Chatto, London.

BOOKS AND PAMPHLETS RECEIVED—

Objections to some of the Recent Views upon the Pathology of Tubercle and Pulmonary Consumption, by R. P. Howard, M.D.—Roy's Essay on the Causes, Symptoms, and Treatment of Burdwan Fever—Spence's Address to the Edinburgh Medical Graduates—Aitken's Outline of the Science and Practice of Medicine—Note sur un Moyen Simple, Facile, Prompt, et Certain de Distinguer la Mort Vraie de la Mort Apparente de l'Homme, par Dr. Monteverdi—Report on the Census of the Madras Presidency, 1871, by W. R. Cornish, F.R.C.S., Surgeon-Major—Supplementary Tables of the Census Results of the Madras Presidency for 1871, by F. S. Cornish, Surgeon-Major—Report of the Sanitary Commissioner for Madras, 1873—Day on Wooden Hospitals, their Advantages from a Sanitary Point of View—Aveling on Nidation in the Human Female—Della Cura Lattea, per C. Dott. Vivante—Births and Deaths Registration Act, 1874—Reynolds's Address in Medicine, delivered at the Meeting of the Bristol Medical Association in Norwich, 1874.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Bulletin Général de de Thérapeutique—Monthly Microscopical Journal—L'Archives Général de Médicine—East Anglian Daily Times—American Journal of Insanity—Lincolnshire Chronicle—O Correio Medico de Lisboa—Glasgow News—Utica Daily Observer—Edinburgh Medical Journal—The Psychological and Medico-Legal Journal—Australian Medical Journal—The Obstetrical Journal of Great Britain and Ireland—The American Practitioner—The Ophthalmic Hospital reports, vol. viii., part 1—Practitioner.

## APPOINTMENTS FOR THE WEEK.

*November 7. Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

9. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Dr. Theodore Williams (for Dr. Redtel), "A Case of Transfusion of Lamb's Blood in Phthisis." Dr. Richardson, "On Specific Forms of Purpura Hæmorrhagica."

10. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Samuel West, "On the Elimination of Urea in certain Diseases."

11. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. The President will deliver the Opening Address.

Hunterian Society (London Institution), 8 p.m. Dr. Pye-Smith, "On a Case of Stricture of the Colon."

12. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

13. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Mr. Barwell, "On Two Cases illustrative of Reflected Irritation: 1. Unilateral Trismus; 2. Severe Epilepsy Cured by Excision of a Neuroma." Dr. Buzzard, "On a Case of Recovery from Melancholia after four years' refusal of food and obstinate silence." Mr. Hulke, "On a Case of Poisoning by Chloral."

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, October 31.*

### BIRTHS.

Births of Boys, 1194; Girls, 1165; Total, 2359.
Average of 10 corresponding years 1864-73, 2162·9.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 710 | 658 | 1368 |
| Average of the ten years 1864-73 | 699·9 | 679·2 | 1379·1 |
| Average corrected to increased population | ... | ... | 1517 |
| Deaths of people aged 80 and upwards | ... | ... | 52 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | ... | 11 | 1 | 3 | 1 | 2 | 1 | 7 |
| North... ... | 751729 | ... | 1 | 30 | ... | 1 | 1 | 6 | 3 | 3 |
| Central ... | 334369 | ... | 1 | 13 | 1 | 1 | 1 | 4 | ... | 1 |
| East ... ... | 639111 | ... | 4 | 48 | 1 | 3 | 2 | 8 | 2 | 4 |
| South... ... | 967692 | 1 | 2 | 26 | 1 | 4 | 2 | 8 | 2 | 6 |
| Total ... ... | 3254260 | 1 | 8 | 128 | 4 | 12 | 7 | 28 | 8 | 21 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·928 in. |
| Mean temperature | 53·3° |
| Highest point of thermometer | 65·0° |
| Lowest point of thermometer | 45·9° |
| Mean dew-point temperature | 51·5° |
| General direction of wind | S.W., S.E., & N.E. |
| Whole amount of rain in the week | 1·29 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, October 31, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Oct. 31. | Deaths Registered during the week ending Oct. 31. | Temperature of Air (Fahr.): Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.): Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2359 | 1368 | 65·0 | 45·9 | 53·3 | 11·84 | 1·29 | 3·28 |
| Portsmouth ... | 120436 | 26·8 | 62 | 30 | ... | ... | ... | ... | 0·75 | 1·90 |
| Norwich ... ... | 82257 | 11·0 | 55 | 40 | 62·0 | 42·0 | 52·2 | 11·28 | 0·14 | 0·36 |
| Bristol ... ... | 192889 | 43·3 | 124 | 85 | 62·0 | 44·6 | 52·9 | 11·61 | ... | ... |
| Wolverhampton ... | 70896 | 20·9 | 51 | 34 | 60·3 | 42·6 | 50·9 | 10·50 | 0·80 | 2·03 |
| Birmingham ... | 360892 | 43·0 | 259 | 194 | 61·4 | 44·7 | 51·9 | 11·06 | 0·99 | 2·51 |
| Leicester ... ... | 106202 | 33·2 | 79 | 52 | 63·0 | 44·2 | 52·0 | 11·11 | 0·72 | 1·83 |
| Nottingham ... | 90894 | 45·5 | 51 | 39 | 62·4 | 44·4 | 51·9 | 11·06 | 0·33 | 0·84 |
| Liverpool ... ... | 510640 | 98·0 | 384 | 349 | 60·5 | 43·7 | 50·0 | 10·00 | 1·00 | 2·54 |
| Manchester ... | 355339 | 82·8 | 269 | 182 | 61·2 | 44·0 | 50·9 | 10·50 | 0·65 | 1·65 |
| Salford ... ... | 133068 | 25·7 | 134 | 76 | 60·9 | 42·8 | 50·0 | 10·00 | 0·71 | 1·80 |
| Oldham ... ... | 86281 | 18·5 | 75 | 47 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 110 | 99 | 60·8 | 45·2 | 49·8 | 9·89 | 0·61 | 1·55 |
| Leeds ... ... | 278798 | 12·9 | 212 | 130 | 62·0 | 45·0 | 50·9 | 10·50 | 0·53 | 1·35 |
| Sheffield ... ... | 261029 | 13·3 | 255 | 141 | 62·0 | 45·0 | 50·9 | 10·50 | 1·30 | 3·30 |
| Hull ... ... ... | 130996 | 36·0 | 123 | 77 | 62·0 | 46·0 | 51·2 | 10·67 | 0·60 | 1·52 |
| Sunderland ... | 104378 | 31·6 | 70 | 47 | 63·0 | 43·0 | 50·6 | 10·33 | 0·65 | 1·65 |
| Newcastle-on-Tyne | 135437 | 25·2 | 135 | 76 | ... | ... | ... | ... | ... | ... |
| Edinburgh ... ... | 211691 | 47·8 | 126 | 83 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 403 | 342 | 57·7 | 31·1 | 43·7 | 6·50 | 0·25 | 0·63 |
| Dublin ... ... | 314666 | 31·3 | 165 | 136 | 59·5 | 33·6 | 49·0 | 9·44 | 0·57 | 1·45 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5504 | 3627 | 68·0 | 42·0 | 50·7 | 10·39 | 0·70 | 1·78 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·93 in. The highest was 30·11 in. on Saturday morning, and the lowest 29·82 in. on Sunday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond., F.R.C.P.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

### Lecture VIII.—Acute Catarrhal Pneumonia.

In a preceding paper we have seen that croupous (lobar) pneumonia may be either a primary or a secondary disease. It may either attack a perfectly healthy subject, or may occur as a complication in the course of some other illness. Catarrhal, or lobular, pneumonia is, on the contrary, nearly always a secondary lesion. In almost every case it is preceded by severe pulmonary catarrh, of which it is one of the direct consequences.

Catarrhal pneumonia is peculiarly the pneumonia of infancy. This, according to Rindfleisch, is the consequence of the greater irritability of the epithelial elements in the child's lung. The cells are larger, contain more protoplasm, and adhere less firmly to the alveolar surface than they do in after life. In the young subject the catarrhal process extends very rapidly and readily from the minuter bronchi to the alveolæ; and therefore, on account of the proneness of the child to catarrhal diseases, especially to pulmonary catarrh, this form of pneumonia is of great frequency, and is much more often met with than the croupous form, which is the more common lesion in the adult.

The distinction between croupous and catarrhal pneumonia is one which lies not only in the clinical character of the two diseases, but also extends to the nature of the pathological process. In croupous pneumonia a highly fibrinous liquid escapes from the bloodvessels, accompanied by large quantities of both red and white corpuscles, and coagulates in the air-cells of the lung. The process appears to consist more in extravasation than in exudation; for although a certain proportion of the corpuscles may pass bodily through the walls of the vessels, as stated by Cohnheim, yet there is little doubt that actual rupture of the bloodvessels, and escape of their contents, is an important feature in the process. Whether the coagulable matter be merely blood plasma, or consist of that fluid altered in character during its passage from the blood; whether, again, the cells with which the alveoli are choked consist entirely of blood corpuscles, or are composed in part of a rapid multiplication of the cells and nuclear elements of the tissues themselves,—these are questions which, although interesting to the pathologist, are yet comparatively unimportant to the practical physician. The great point of interest to him lies in the fact that in croupous pneumonia the cellular elements filling up the vesicles are exuded or extravasated from the blood.

In catarrhal pneumonia, on the contrary, the cells which crowd the air-vesicles are not derived from the blood at all, but are produced in the cells themselves by a proliferation of the alveolar epithelium. These epithelial cells rapidly multiply and enlarge, and are embedded in a semi-fluid mucoid material which contains little or no fibrin such as is found in the spontaneously coagulable matter which holds together the corpuscles in croupous pneumonia. The process, which is a catarrhal one, takes place in detached lobules scattered through the lung, and the appearance presented to the naked eye is that of reddish-grey nodules dispersed over the organ. The colour afterwards changes to yellowish-grey, for the cells, which rapidly enlarge and develope one or more nuclei, soon undergo a fatty metamorphosis. If the fatty change be completed, absorption takes place, and the consolidation is removed; if it remain incomplete, the cells atrophy, the little masses become caseous, and the disease passes into a chronic stage.

This lobular inflammation is often the result of an extension of the catarrhal process from the bronchi to the air-vesicles, but it may arise in another way. Collapse of the lung is a very common complication of bronchitis in children, and a collapsed state of the air-vesicles greatly favours a rapid multiplication and development of the alveolar epithelium cells. In part through the imperfect aëration of the blood, and in part through the absence of the ordinary respiratory movement in the affected tissue, a great impediment is created to the passage of the blood through the capillaries of the collapsed portion of lung, and a passive congestion is set up. This is soon followed by œdema. Inflammation then occurs at separate points, which may remain isolated, being divided by the congested and œdematous tissue, or may coalesce until a large portion of the lung becomes solidified.

From the above short and imperfect sketch of the pathological processes which give rise to the disease, it is evident that lobular pneumonia must almost always be a secondary inflammation. It seems probable that the occurrence of this form of pneumonia is favoured by anything which reduces the strength, or which diminishes the respiratory muscular force of the child. Therefore, bad feeding and hygiene, all diseases where catarrh is a prominent symptom, and in fact all diseases which require a recumbent position to be long maintained, and so cause congestion of the posterior parts of the lungs, are predisposing causes which render more probable the occurrence of this complication.

The differences in the method of production of catarrhal pneumonia—whether or not it is preceded by collapse—have an important bearing in a clinical point of view. The combination with collapse is usually found in cases of pertussis, and the disease is then much more insidious in its invasion, and often runs a subacute and very tedious course. The complaints in which lobular pneumonia is especially liable to occur are bronchitis, measles, and pertussis. Severe capillary bronchitis is very rarely left uncomplicated by lobular inflammation, and the pneumonia usually in such cases begins early, especially if rickets be present; for this disease, if at all severe, is always accompanied by a certain amount of collapse of the lung. The softening of the ribs which is so prominent a symptom in severe rickets offers a great impediment to the entrance of air even if the lungs be healthy; but if the passage of air be further hindered by the addition of pulmonary catarrh, a full inspiration becomes impossible. The patient is, therefore, unable to take in a sufficient supply of air to furnish the means for a successful cough, and the mucus, not being expelled, accumulates in the tubes and causes collapse. The mechanism of collapse and the causes which predispose to it have been already fully considered in a previous paper.(a)

The course of catarrhal pneumonia is as follows:—After pulmonary catarrh has existed for some little time, a sudden change takes place in the character of the symptoms. The temperature rises, but not to such a height as is found in the croupous form of the disease; the thermometer is usually found to mark about 102°. The breathing, which was before hurried, becomes very rapid and laborious, and there is intense dyspnœa. The efforts made to draw in the air are shown by the widely dilated nares and the violent action of all the accessory muscles; while the insufficient distension of the lungs is evidenced by the great recession of the lower part of the chest-walls and by the sinking in of the intercostal spaces. In fact, although the breathing is so laborious, it is yet shallow. The inspirations are short and imperfect, the expirations noisy and prolonged. This rapidity in the breathing produces the same alteration in the ratio between the pulse and the respiration which is seen in lobar pneumonia. A ratio of 1 to 2, or even of 1 to 1·5, is not at all uncommon; and this varies at different times in the day, for the dyspnœa is sometimes paroxysmal, and occasionally becomes intensified to such a degree as to appear to threaten immediate suffocation. The cough also alters its character. Instead of the loose prolonged cough of bronchitis, we get the short hack of pneumonia. It often occurs in paroxysms, each expiration being accompanied by a short dry cough, which is evidently painful from the distress visible in the face of the patient. At the same time the secretion from the bronchi is diminished, for the rattling of mucus in the chest at each breath, which is so common a feature in bronchitis, can no longer be detected. The pulse is rapid, but small and feeble. Its weakness is no doubt partly due to comparative emptiness of the arteries, on account of the impediment to the passage of the blood through the lungs; and the same explanation applies to the fulness of the superficial veins which is so often observed in the disease.

Examination of the chest often yields no very positive results. As long as the pneumonia remains confined to isolated patches there is seldom any dulness on percussion, but sometimes we can detect a general want of healthy pulmonary tone over the back, and this is more marked on employing broad percussion, striking with three fingers upon three fingers

(a) See *Medical Times and Gazette*, Nos. for May 17 and May 31, 1873.

placed upon the chest-wall as pleximeters. Occasionally we find a localised spot of dulness with very limited bronchial breathing, and sometimes the breathing may even approach to the tubular character when the affected portion of lung is of some size from coalescence of several inflamed patches.

The following case well illustrates these symptoms:—

L. W., a little boy, aged five months, had had a bad cough, and was feverish for a fortnight. On July 6 he suddenly became very much worse. He was seen on July 7. Skin very hot; respirations very rapid; face livid; nares acting; cough almost constant, short and hacking. There was great recession of the chest-walls at the lower part, and the intercostal spaces of both sides sank in deeply at each inspiration. No dulness was found on percussion of the back at either side, and the breathing seemed natural. In the left infra-axillary region, a little below the level of the nipple, a spot of dulness could be detected, and the respiration there was bronchial, approaching to tubular. Everywhere else the breath-sound was natural.

A saline mixture, containing a few drops of antimonial wine, was prescribed, and the whole chest was ordered to be kept covered with linseed-meal poultices.

The child went on well for a few days, when early on the morning of July 14 he was taken suddenly worse. Breathing excessively rapid; nares acting; much lividity of lips and eyelids, and a general straw-tint all over face; eyes wide open and turned upwards; fontanelle rather elevated and tense; pulse 160, excessively weak; temperature in rectum 102°. Great recession of chest-walls and sinking in of intercostal spaces. The child had been a little convulsed, but had had no regular fit. On examination of the chest no dulness was detected, but the respiration was heard to be tubular in spots about both sides of back. Convulsions came on violently in the evening, and the child died.

It is especially in cases where the pneumonia arises from an extension of the inflammation from the bronchi to the air-vesicles, or where the inflammation occurs in patches of lobular collapse, that the absence of positive dulness is to be noted. When an extensively collapsed portion of lung becomes inflamed, there are usually signs of considerable consolidation, and the dulness is apt to take a form which is very characteristic, presenting itself as a narrow strip along the side of the vertebral column, reaching upwards a variable distance from the base. As the collapse is usually symmetrical, this pyramidal form of dulness is found on both sides. To detect it, it is necessary to percuss lightly.

Over the parts of the lung unaffected by the pneumonia the physical signs are those of the bronchitis which is present; the respiration is exaggerated and coarse, and is accompanied by sonoro-sibilant and bubbling rhonchi. As the stethoscope is moved towards the consolidated spots the bubbling rhonchus becomes finer and drier in character, and may even assume the fine puffy character of true pneumonic crepitus if the consolidated part is of any magnitude.

George C., aged one year and nine months, a delicate child, who had been troubled for some weeks with looseness of the bowels, was seized with measles on November 21. The cough was very violent, and continued after the eruption had subsided. On December 5 the boy seemed so ill that he was brought to the hospital, and was at once admitted as an in-patient.

On admission, the child was very quiet, and seemed exceedingly ill. His face was pale, with some lividity round the mouth and beneath the eyes; the nares dilated widely at each breath, and the respiration was rather laborious. There was some recession at the epigastrium, and the intercostal spaces of both sides sank in deeply on inspiration. The fontanelle, which was the size of a shilling, was depressed, and the pulse was small and feeble. The child had been lately sick; the bowels were still relaxed; and his tongue was thickly furred. Temperature 100·4°. On examination of the chest, dulness was discovered at the left back reaching from the base as far as the lower angle of the scapula; the respiration there was tubular, and much fine subcrepitant rhonchus was heard. There was also dulness at the extreme base on the right back; the breathing was bronchial, and fine subcrepitant rhonchus accompanied both expiration and inspiration. In front there was no dulness on either side, and ordinary dry and large bubbling rhonchi alone were heard. The child was perfectly quiet during the examination of his chest, and allowed himself to be held in any position without complaint.

On the following day, December 6, the dulness reached rather higher at the left back, and the crepitation there was finer and more puffy in character; the vocal resonance also was increased. At the right back the dulness reached as high as the inferior angle of the scapula; the respiration was bronchial, and inspiration was accompanied by a fine puffy crepitation. Temperature in morning 101·8°, pulse 152, respirations 44; temperature in evening 102·6°.

On the evening of December 9 the temperature was as high as 103·4°, and rose to 105° on the following morning. A few hours afterwards the child died.

At the post-mortem examination there was found solidification of the lower lobe of each lung, extending upwards in a pyramidal form from the base, so that the narrowest part of the consolidation was at the upper border of the lobe. The solidification did not extend the whole thickness of the lung, but occupied only the posterior surface; in front the lobe appeared healthy, and crepitated on pressure. The consolidated parts were of a purplish-red colour, but were not depressed. The section was deep red in colour, with small greyish patches scattered over the surface—evidently isolated spots of catarrhal pneumonia. The tissue was not tough, but broke down pretty easily under the finger. Much purulent bloody fluid escaped on pressure. The catarrhal pneumonia from which this child suffered was no doubt secondary to collapse of the lung. The boy was in a weakly state from diarrhœa when he was attacked by measles. The accompanying catarrh was severe, and induced symmetrical pulmonary collapse, which afterwards became the seat of catarrhal pneumonia.

The consolidation in this case was of some extent: but the presence of bronchitic râles over the lungs generally, the character of the crepitation heard over the seat of consolidation, and the fact that this and bronchial or even blowing breathing were heard in the same spot, marked out the case very distinctly from ordinary croupous pneumonia. Besides, in the diagnosis of catarrhal pneumonia the exact nature of the lesion may be determined by attention as much to the general as to the local features of the disease. In the present case the face was pale instead of being flushed, the two lungs were attacked simultaneously, the breathing was laborious, and the temperature until a few hours before death reached no very great elevation. In all these points, therefore, the disease differed from an ordinary case of croupous inflammation. Besides, the age of the child was of importance; for although lobar pneumonia may attack infants of even a few months old, yet inflammation of the lung is much more commonly catarrhal than croupous under the age of two years. Lastly, the form of pneumonia which occurs secondarily to measles is in the large majority of cases catarrhal. For these reasons the case was looked upon as one of catarrhal pneumonia, and the diagnosis was confirmed by a post-mortem examination of the body.

Children suffering from a severe form of this disease are singularly impassive and regardless of what they would under ordinary circumstances highly resent. They seem not so much stupid as unaffected by ordinary sources of annoyance. Thus, in the child whose case has just been referred to, there was no lack of intelligence in the expression of the eye, but the apathy he showed under examination, and the indifference with which he allowed himself to be shifted from one position into another to suit the convenience of the physician, was a striking feature in the case. When this apathy is carried to such an extreme degree, the prognosis is very unfavourable.

The course of catarrhal pneumonia is not always so acute as in the cases above described. The inflammation often progresses much more slowly, and, indeed, when the disease does not prove fatal within the first few days it usually takes on a sub-acute course, which may continue for several weeks before reaching its termination. In this form of the complaint the general symptoms are less severe; the skin, although hot, is often moist, and the physical signs may undergo little change for days or even weeks together, the pulmonary lesion appearing to be almost stationary. The child, however, gets weaker and thinner, paler, and more and more apathetic, and death may be preceded by extreme emaciation.

Jane S., aged fifteen months, two teeth, was admitted into the East London Children's Hospital on March 16. There was consumptive history on the mother's side, and one other child was said to have died from phthisis. The patient had been wasting more or less since birth, and had been subject to frequent attacks of diarrhœa; her bowels, indeed, were habitually loose, with slimy offensive motions. Her diet had

consisted principally of corn-flour, but she had been fed besides with portions of the food of her parents. She had never walked. For five weeks she had had a cough, which latterly had become worse, and she had begun to be feverish. When admitted, the patient was pale, thin, and miserable-looking, but the expression of the face was not actually distressed. Her limbs were excessively small and flabby. The joints were not nodular, but the ends of the ribs were beaded. Her chest was of normal shape, without distortion; there was considerable recession of the lower parts on inspiration, and the intercostal spaces sank in deeply. There was no lividity of the face. Fontanelle size of a sixpence, depressed. Circulation feeble; hands and feet cold, and pulse weak and small. Temperature in rectum 103·4°. On examination of the chest some dulness was found, with slightly increased resistance at each base behind, but more marked and more extensive on the left side than on the right. The respiration was blowing, but not tubular, and was accompanied by a fine crepitating rhonchus. The resonance of the cough was stronger than natural.

On March 17, in the morning, the temperature was 101·8°, pulse 112, respirations 36, and during the following days the temperature usually varied between 101° and 102°, although it sometimes rose to nearly 103° in the evening. The pulse, too, altered little in rapidity from day to day, varying between 120 and 140, but the respirations increased progressively in frequency, rising gradually to between 50 and 60 in the minute. The physical signs underwent but little alteration: the dulness became slightly more pronounced, and crept up rather higher at each back; the respiration assumed more of a sniffling quality, but never became perfectly tubular; the rhonchus lost much of its crepitating character, and became more bubbling, and the vocal resonance was bronchophonic.

On March 24 some want of tone on percussion was noted at each supra-spinous fossa, especially the right, and the respiration at these spots was high-pitched and wheezing, with some subcrepitant rhonchus. At the base the physical signs remained the same, except that the respiration in each infra-axillary region had become slightly bronchial, especially on the right side, where there was some fine bubbling rhonchus, which disappeared after a cough; the resonance of the cough, too, was increased. There was, however, no dulness laterally, the alteration in the percussion-note ceasing on each side at the level of a line drawn perpendicularly downwards from the posterior fold of the axilla. In front, with the exception of some dry râles, there were no physical signs throughout the course of the illness.

The child got very thin, and towards the end her bowels became relaxed and she wasted very rapidly; her restlessness changed to dulness and apathy, and she gradually passed into a somnolent state, in which she died on March 26. Temperature shortly before death, 102·2°; pulse 156; respiration 56.

On examination of the body, the lower parts of both lungs were found the seat of catarrhal pneumonia. The inflamed patches had in many places become caseous, and in some had softened down into a thick purulent liquid; the tissue between them was collapsed in many spots. Much thick purulent secretion was found in the bronchi. The upper lobes were emphysematous. There were no grey granulations anywhere about the body, and all the other organs appeared to be healthy.

In this case the child was a weakly, unhealthy-looking infant, the subject of rickets, and the only difficulty was to decide upon the presence or absence of grey tubercle. There was a history of phthisis in the family, and therefore a constitutional tendency to caseous degeneration, but this did not necessarily imply any special proclivity to true tubercular disease, although, as has been pointed out in a previous paper (see *Medical Times and Gazette*, April 25, p. 445), acute tuberculosis appears to be in many cases a secondary formation induced by general infection of the system through softening cheesy matter. There was, however, ample cause in the history of the present patient to account for the miserable condition into which she had fallen. She had been fed improperly almost from her birth; that is to say, her system had been stinted of suitable nourishment on account of the indigestible form in which food had been supplied to her; and, in addition, she had suffered from an habitual looseness of the bowels, which had still further lowered her strength and reduced a system ill-prepared to support so exhausting a derangement.

In such a state a child falls an easy victim to secondary acute diseases, and the condition of the patient was one especially favourable to the development of catarrhal pneumonia. The respiratory muscles necessarily shared in the weakness of the whole muscular system, and her enfeebled state necessitated an almost constantly recumbent position, which tended to promote congestion of the posterior parts of the lungs.

The disease in this case was evidently an acute one, for the child had only coughed for five weeks previous to her admission into the hospital; and the consolidation was quite recent, for when the patient was first seen the dulness was not extensive, and it spread gradually after she had come under observation. The chief distinction between this case and one of ordinary croupous pneumonia lay in the character of the physical signs. The breathing was never tubular; the rhonchus differed much from true pneumonic crepitation, and, besides, remained audible over the seat of consolidation, even in spots where the breathing was most markedly blowing. The disease also was bilateral, affecting corresponding parts of both lungs; the temperature was lower than is common in croupous pneumonia; and, finally, the subacute course of the disease was very characteristic of its catarrhal origin.

When first seen the case might perhaps have been mistaken for one of croupous pneumonia undergoing resolution; but a reference to the pyrexia would at once have shown that this could not be the case, for in croupous pneumonia the critical fall of temperature precedes by several hours any improvement in the physical signs. Afterwards, the gradual spreading of the signs of consolidation and the persistent elevation of temperature pointed to the true nature of the illness.

It would probably have been impossible in this case positively to exclude tuberculosis, for the catarrhal pneumonia might very well have occurred secondarily to the grey granulation, and there was sufficient evidence in the family history and the personal experience of the child to warrant such a conclusion. Still, the theory of tuberculosis was not necessary to the full explanation of the symptoms; and partly for this reason, partly on account of the absence of the haggard, wearied expression so characteristic of the constitutional disease, and partly also on account of the seat of the consolidation—which was limited to the posterior base of the lung at each side,—it was thought probable that this case was one of uncomplicated catarrhal pneumonia following upon a long period of malnutrition.

(*To be continued.*)

## ORIGINAL COMMUNICATIONS.

# TWO CASES ILLUSTRATING THE SURGERY OF WOUNDS OF THE DEEP-SEATED ARTERIES OF THE LEG.

By JAMES SPENCE, F.R.S. Ed.,
Surgeon-in-Ordinary to the Queen in Scotland; Professor of Surgery in the University of Edinburgh.

(*Concluded from page* 522.)

*Case* 2.—*Wound of the Posterior Tibial Artery, complicated with a Simple Luxation of the Knee-joint—Ligature of Posterior Tibial Artery—Incipient Gangrene—Amputation—Recovery.*

William McB., aged thirty, was admitted into the wards of the Royal Infirmary under my care, at midnight on February 28, 1872, suffering from a punctured wound on the inner side of the calf of the leg.

He stated that at the time he received the injury he was standing on a canal boat, which was passing another, and that the tow-rope caught and hurled him against the side of the boat. As he was rendered insensible at the time by the force of the fall he could not say exactly how the wound in his leg was inflicted, but as there was an iron spike three or four inches long, he supposed he had fallen upon it.

On admission there was smart oozing of blood when the bandages were removed, and the patient was rather faint from previous loss of blood, shock, and fatigue, as he had been brought from a considerable distance to the hospital.

I saw the patient on my visit next day; I found the limb tense from extravasation, and on removing the compress a stream of mixed arterial and venous blood issued from the

puncture. On commanding the bleeding by pressure of the femoral artery, and examining the wound with a gunshot probe, I found that it passed deeply upwards. On reapplying the compress and relieving compression of the femoral, the anterior tibial was felt distinctly pulsating on the instep, but no distinct pulsation could be distinguished in the posterior tibial behind the inner ankle. As the direction of the wound, the hæmorrhage, and want of pulsation in the posterior tibial artery seemed to indicate wound of that vessel, whilst there was no fracture of the bones of the leg—nor apparently any injury but the wound of the leg,—I determined to enlarge the wound in the direction of the posterior tibial, and I accordingly had the patient removed to the operating theatre and brought under the influence of chloroform. When partially under the influence of the anæsthetic, a movement of the leg produced dislocation of the knee-joint, showing the existence of that serious lesion as well as the wound. I, however, proceeded to enlarge the wound and secure the wounded vessel in the first instance. I enlarged the existing wound to the extent of about seven inches, principally in the upward direction. This incision slit up the whole thickness of the gastrocnemius and soleus muscles, as well as the integuments and fascia, at one sweep. When the edges of the wound were drawn aside by spatulæ and the coagula sponged out, the posterior tibial nerve could be seen through the thin aponeurosis covering it, and that membrane had been partially torn over the artery. On slitting up the deep fascia I found the whole course of the vessel imbedded in extravasated blood. At one point, where the clot was large, I expected to find the wound in the artery, but found that only one of its accompanying veins had been torn there. Higher up, above the point where the fibular artery came off, an oblique slit-like wound was found in the posterior tibial. After placing a ligature above and below this, the tourniquet was slackened, when a jet of blood issued from the wounded point. The ligatures were then tied, and subsequently some muscular branches in the soleus and gastrocnemius muscles were secured.

I next carefully examined to ascertain whether there was any communication with the dislocated knee-joint, but finding no communication with the wound, I decided on giving the patient the chance of saving the limb. The luxation was easily reduced, and showed no tendency to displacement, when the patient was put to bed, and the limb laid on a soft pillow. Owing to the bulging of muscles, and being anxious to avoid all tension, no sutures were used; lint soaked in weak carbolised oil was laid over the wound, its margins gently approximated by the many-tailed bandage, and the limb enveloped in cotton-wool. The patient was directed to have an opiate, and some stimulants should the pulse become weak, but not otherwise; milk and beef-tea for diet.

On my visit next day (March 2) I found that the patient had passed a restless night, and that some small vessels had required to be tied after reaction took place. His pulse was 140 and irritable, and his expression anxious. The wound had a dry, unhealthy look, and the upper part of the leg in front indicated incipient gangrene. I now learned from further information that he had not only been knocked down by the tow-rope, but that his leg had been twisted in a bight of the rope. I therefore advised him to submit to amputation of the limb, to which he readily consented.

I amputated the thigh at the lower third by a double flap, the anterior being longer than the posterior. After the amputation the symptoms gradually improved, and the patient made a good though slow recovery. The only thing worth noticing in the treatment of the stump was that I used traction by means of plaster and extension pulleys to prevent retraction of the flaps.

*Remarks.*—In the first instance, the indications for tying the posterior tibial artery in this case were sufficiently distinct. The hæmorrhage, direction of the wound, and such history of the accident as could be obtained, taken in connexion with the free pulsation in the anterior tibial at the ankle, and its continuation on the dorsum of the foot, whilst no pulsation could be detected in the posterior tibial at the inner ankle, all pointed to a lesion of that vessel at the upper part of the leg. At the time I proceeded to operate we had no intimation of there having been luxation of the knee; that complication only showed itself whilst the patient was being brought under the influence of chloroform. Its occurrence did not alter my plan of procedure, because the free incision necessary to expose and tie the posterior tibial artery would enable me to ascertain positively whether the luxation had torn the surrounding textures so as to communicate with the wound of the leg, and so decide me as to the propriety of amputation. The presence of simple luxation of the knee coincident with a wound of the artery, though a grave complication as influencing the result, would not, in my opinion, be a sufficient ground for performing amputation in the first instance. It is true that, in simple luxation of the knee, the force causing it not unfrequently leads to rupture of the coats of popliteal vessels, more or less complete, and consequent obstructed circulation; but the pulsation in the anterior tibial, and the free hæmorrhage from the wound, sufficiently evidenced that such condition was not present in this case. There were no appearances on the limb to indicate the more serious injury of the limb having been caught and crushed in the bight of a warp-rope, and I only heard that statement subsequently. In such an injury, if the limb has been forcibly acted on, the appearances can scarcely be overlooked; the mark caused by the direct action of the rope, the muscular textures reduced to a pulp, and the rapid loss of vitality in the injured parts are only too obvious. Neither the skin nor the state of deeper seated structures in this case presented any such appearances, and I am therefore disposed to believe that the constricting action of the rope had not been in full force. I think that the gangrene which necessitated amputation most probably arose from a combination of various causes. Loss of blood and the degree of force causing contusion of the soft parts and dislocation of the knee-joint were, under the circumstances, likely enough to diminish the vitality of the textures and predispose to gangrene; but if the patient under such circumstances can be carefully watched, I believe that ligature of the artery and a chance given to save the limb is the proper practice to pursue.

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ON THE

# TREATMENT OF TRICHIASIS AND DISTICHIASIS BY A PLASTIC OPERATION.

By W. SPENCER WATSON, F.R.C.S.

The inversion of the eyelashes, whether as a result of blepharitis or other causes, is often so troublesome, and imperils the sight so much, that the patient is willing to submit to any operation for its removal. Hence the old-fashioned operation of "scalping the lid," thus excising the whole row of eyelashes, has been most commonly performed, because it is very successful as a rule, and the amount of deformity remaining is insignificant as compared with the constant irritation and danger associated with the malady itself.

But it occurred to me that by transplanting the offending row of eyelashes we might obtain the good effects of the "scalping" method without any subsequent disfigurement; and in two cases in which I have done this the results have fully answered my expectations. The first case (one of distichiasis, published in the *Ophthalmic Hospital Reports*, vol. vii., p. 440) presented a double row of eyelashes in the middle third of the upper eyelid, the innermost row being directed downwards and inwards, and causing great and constant irritation of the cornea. This double row was transplanted in a single flap, and its place supplied by a second flap, taken from the skin of the eyelid above and parallel with the first flap.

The irritation of the cornea very quickly subsided, its partial opacity very much cleared, and vision was correspondingly improved. The scars left by the operation were, in the course of a month, quite invisible except on very close inspection, and the appearance of the patient (a young woman) was not only not deteriorated, but actually improved.

In the second case, the whole length of the upper eyelid was occupied by eyelashes growing inwards and downwards. The patient was a clerk, aged forty years, who had suffered from blepharitis involving the eyelashes and their bulbs about two years and a half before I saw him in April, 1874.

He was in the habit, ever since the commencement of the inversion, of plucking out the eyelashes by the roots every two or three weeks, but even then suffered occasionally much pain and inconvenience.

I therefore proposed and performed the following operation, the patient being under the influence of chloroform:—

The inner and outer halves of the lid were each separately subjected to a proceeding similar to that described in the first case. Thus, a flap was formed of the inner half of the tarsal

margin, with its free end close to the inner canthus, and its attached end at the centre. A flap was then taken from the skin above this, corresponding in length, but having its attached end opposite the free end of the lower flap. The two flaps were then reversed, the upper one being stitched into the original position of the lower, and the lower into that of the upper. A similar proceeding was repeated for the outer half of the tarsal margin and its hair bulbs. The two upper flaps now lay along the ciliary margin of the lid, their free ends meeting in the centre, where they were retained in apposition by stitches. The lines of incision were then covered with collodion and cotton-wool. On the 18th day after the operation, the last two stitches were removed, and the flaps remained in their new positions. A portion of the extreme end of one of the lower flaps had sloughed and separated, but this had not interfered with the general effect. Two months and a half after the operation, the eyelashes had grown to their full length in the new direction—viz., directly forwards,—and the patient had suffered no inconvenience whatever. The scars of the incisions in the eyelid were quite unobservable, and the only trace of the cutting operation was a slight irregularity in the tarsal margin near the centre. This, I have no doubt, will wear out in time, and the result will become more and more perfect.

There is one point in the operation that ought to be strictly kept in view. In taking the two upper flaps, their free extremities above the centre of the tarsal margin must not be allowed to meet; a bridge of skin must be left for the nourishment of the two lower flaps, which would otherwise be cut off from their vascular supply. The necessary length of the two upper flaps can be obtained by making the incisions obliquely upwards, and so leaving a bridge undivided between them. It would probably appear simpler to take a single flap below and a second above, but this would endanger the nutrition of each, whereas by treating each half of the lid separately we obtain a good vascular supply for each, and insure a more speedy union of the cut edges.

I claim for this operation that it is more easy of performance than Arlt's or Graefe's, and quite as, if not more, effectual. If only one or two, or a few eyelashes in a group, are inverted, a method proposed by Snellen, and performed successfully by Mr. Brittin Archer and myself, may be adopted. This consists in passing a needle, threaded with a noose of human hair, through the edge of the eyelid immediately in front of and a little above the offending eyelash or eyelashes, and carrying the needle upwards and forwards about one-sixteenth of an inch above the normal line of eyelashes; the noose is now slipped over the faulty eyelash, and the latter drawn through with it and out at the upper aperture. In this way it assumes a direction forwards and upwards, and will generally retain this new position. But this operation, if applied to a whole row of eyelashes, as in trichiasis, would be, at least, tedious in performance and probably imperfect in its result.

7, Henrietta-street, Cavendish-square.

## GOA POWDER.

By GEORGE GASKOIN, M.R.C.S., etc.,
Surgeon to the British Hospital for Diseases of the Skin.

I FOR a long time since have been accustomed to keep a good stock of Goa powder always on hand, and, indeed, I have some varieties of such-like Eastern specifics; but further I must say that I have met with medical gentlemen from India, of the darkest shade of complexion, who are very far from giving it the reputation of infallibility, and, in fact, they say that it often fails, and prefer the English remedies to their own. I have also treated cases of Indian ringworm in this country as found in adults, and have always found them yield to our ordinary means—especially, I may mention, the biniodide of mercury. These cases were considered peculiarly obstinate; they were generally of wider dimensions than the English ringworm, though that, too, sometimes is exceedingly large; but the Indian form has certainly a difference of character that is easily recognised.

The Goa powder I have now in hand is obtained from Mr. Garrad, chemist, at Leamington. It is, unfortunately, not always procurable at Apothecaries' Hall, but I have known it sold in London, and am not quite sure that the secret of it might not be purchased too. That which I get from Mr. Garrad bears the Government stamp of the Bombay Presidency—as sold by Messrs. Kemp and Co., Bombay and Poonah. This and other powders I have are much alike, though they appear not perfectly identical.

The manner in which I have used the powder is not very different from what Dr. Fayrer directs. I have first wetted the part thoroughly with a little lemon-juice or carbolic water, and then gently and for a few minutes rubbed it in. On the whole, the result in my hands has not been such as to lead me to praise the drug. If used for the head, the face becomes swollen and covered with an ugly brown stain, and the application is followed by an amount of inflammation which equals that from the coarsest remedies. These objections might not hold in a native Hindoo, but here they tell fatally against it. Generally, on trial, it is not liked, and seldom repeated. I should certainly give it a second position among remedies for ringworm. Some uncertainty still hangs about those eruptions, so common to the East, which supervene on intertrigo, and remain on parts that are much subject to heat and moisture—a form of complaint which Dr. Fayrer has very intelligibly described, and which we have been inclined of late to call *eczema marginatum*, but which he, with some reason perhaps, rather refers to *chloasma*. They have also been called the Burmese ringworm. There is probably with these an altered secretion in the part. It is sufficient to say that, in those who return from Eastern countries where these eruptions are so exceedingly frequent, they are very commonly retained to the end of existence. In a gentleman now resident in London for at least twenty-five years, I saw one of these of a dark red colour in the fold of the thigh. In the midst of this was left the mark of an index finger, where a Chinese doctor had occupied himself for some hours in rubbing in one of these powders. Where the finger passed the skin is left leucodermatous, as great a contrast as the red colour to the natural skin; the remaining part is perfectly unaltered, and the white finger-mark is only a small portion in the part diseased. Judging by what I saw, to remove the whole stain would have been a most laborious process; and scarcely would it be worth while to have a white patch in exchange for a red one. I have yet by me some of this very powder, too old, of course, for use; and I have been told that the same thing may be bought at Singapore in only one shop there. In physical appearance it is not different from the Goa powder.

Altogether, as far as English ringworm is concerned, these plans and suggestions of killing the worm have a smack of barbarism about them far worthier of reprehension than encouragement. These hasty methods are practised very much at the risk and expense of the patient to gratify the indolence and lessen the responsibility of friends. In this country practically ringworm is a children's complaint, and as they get strong they get over it with very mild continued applications; while they continue weak and scrofulous and ill-fed you cannot cure the ringworm. It is altogether a case for good food and medicine and fresh healthy air and improved hygiene. I have heard that in India ringworm, which is perfectly intractable in the plains, is cured by a visit to the hills, or made at least amenable to treatment.

PARIS FACULTY OF MEDICINE.—The following are the winter courses of lectures which commenced November 3:—1. Professor Gavarret, Medical Physics (General Physics, Heat, Electricity, and Light) and Biological Physics (the Physical Phenomena of Phonation and Audition). 2. Fernet (as substitute for Axenfeld), Medical Pathology. 3. Sappey, Anatomy (the Respiratory, Urinary, and Generative Apparatus). 4. Chauffard, General Pathology and Therapeutics (Disease in General), Pathological Classifications, General Etiological, and Microscopical Characters of the Different Classes of Diseases. 5. Wurtz, Medical Chemistry and Biological Chemistry (the Chemical Study of Digestion). 6. Dolbeau, Surgical Pathology (Surgical Affections of Regions). 7. Le Fort, Operations and Apparatus (the Therapeutics of Affections of the Bones, Joints, and Vessels). 8. Robin, Histology (Generation and Development of the Anatomical Elements of the Vessels). 9. Lorain, History of Medicine and Surgery (Historical Studies on the Pulse and of certain Epidemic and Contagious Affections). 10. Clinical Medicine by Hayem (as substitute for Bouillaud), Sée, Béhier, and Lasègue. 11. Clinical Surgery by Richet, Gosselin, Verneuil, and Broca. 12. Clinical Midwifery by Depaul. 13. Diseases of Children by Roger.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## UNIVERSITY COLLEGE HOSPITAL.

[For notes of the following cases we are indebted to Mr. Godlee, M.S., Surgical Registrar.]

### DISLOCATION OF SHOULDER OF TWELVE WEEKS' STANDING REDUCED UNDER CHLOROFORM—CURE.

(Under the care of Mr. HEATH.)

G. G., a farm labourer, aged 36, was admitted into No. 2 Ward on February 16. Twelve weeks previously the patient, who is a well-made, sanguine man, was struck on the right shoulder by the shaft of a cart; the latter, then glancing off, struck the right thigh, and the man fell. There was a fracture of the femur and dislocation of the humerus. He was treated at a cottage-hospital; the limb put up in a long splint, and afterwards in millboard splints. Nothing was done to the shoulder till after he had been in some weeks, when he was imperfectly put under chloroform, and recollects the limb being pulled; this was done three times altogether, and he says that the head of the bone is not so far inwards as it was at first. Patient uses crutches to walk with.

On admission, the following conditions were observed:—Prominence of acromion, flattening of deltoid, an unnatural prominence to the inner side of the normal situation of the head of the bone (humerus). If the fingers be placed in the armpit and the thumb on the front of the shoulder, the head of the humerus can be grasped, and felt to rotate with the elbow. The patient cannot touch the opposite shoulder with the hand; the elbow is a little away from the side, and the axis of the upper arm is directed upwards and inwards; neither can the arm be raised to the right angle; flexion and extension of the shoulder are also limited. The distance from the acromion to the olecranon is half an inch longer on this side than on the left (sound) side.

February 17.—The patient having been put under chloroform, the heel was placed in the axilla, extension made, the limb brought inwards across the chest, and the head of the bone forced in a direction backwards. This failing, extension of the limb at right angles to the trunk, by pulleys, was tried, and, the force being suddenly cut off, the same movement and manipulation across the chest were tried. Lastly, the two plans were combined, and reduction was accomplished. The heel being kept in the axilla, and extension by pulley kept up for a few minutes, the force was suddenly cut off, and the arm was brought over the chest, rotated, and pushed backwards. The upper arm was bandaged and damped, and a skein of worsted fastened by clove-hitch. The pulley was fixed to the limb so that the elbow-joint received none of the extension. Nothing audible testified to the reduction, but there was no doubt of it, as the head could be felt to the outer side of the coracoid, and the prominence of the acromion disappeared, the rounded form of the shoulder returning. After reduction the arm was confined to the side by bandage, and the shoulder covered with lint and evaporating lotion.

18th.—Temperature 99·6°; pulse 68. Patient slept well. No pain exists; there is some amount of swelling. The evaporating lotion is applied.

23rd.—Left the hospital well.

### GANGRENE OF FOOT CAUSED BY THE SPONTANEOUS CURE OF A SMALL POPLITEAL ANEURISM—DEATH.

(Under the care of Mr. BERKELEY HILL.)

J. M., a clerk, aged 73, was admitted into No. 2 Ward on January 6. Seven weeks before admission the patient suddenly felt acute pain beneath the right knee-joint. He went to a doctor, who gave him some liniment to rub the knee; this did no good. The pain continued, and gradually extended down the leg. This went on for fourteen days, and then he lost all sensibility and motion in the right foot and ankle. Five days after this the great toe turned black, and the blackening afterwards extended up the heel and rest of the foot, and on to the dorsum. He states that he had of late suffered from coldness of the extremities, and that some time ago he had an attack of illness, which he says was bronchitis, attended with much swelling of both legs. The whole of the right foot and the lower part of the right leg is of a livid purplish colour; the colour becoming deeper towards the sole. The tips of all the toes and the heel are almost black. There is a feeble attempt at separation between the gangrenous and the living tissue above. This line commences immediately in front of the internal malleolus, and extends four inches above the ankle-joint; it then stretches downwards and outwards to three inches above the heel, and horizontally across to internal malleolus again. The skin above this is pink for an inch and a half, and here the circulation is very feeble. Above the inner malleolus are several small bullæ. Sensibility is completely absent below the line of separation. The inflamed area is very painful when touched. Pulsation in femoral can be traced downwards to five inches above inner condyle; below this not at all. Just at this point is a spot of extreme tenderness. Patient looks old for his age; is extremely thin and much emaciated. Arteries throughout the body very rigid and tortuous. Urine acid, and contains a trace of albumen. Arcus senilis, which forms a nearly perfect circle, but not very well marked. Heart: Apex—both sounds muffled, but no murmur.

January 9.—The redness at the point of separation is rather broader; more vesication also noticed above the line of separation. The patient is very much excited this morning; has had no pain in foot since yesterday.

12th.—Line of separation is much more decided this morning; the redness has extended further; more vesication at the anterior part of ankle-joint. Takes his food well.

13th.—Slight pain under the knee. There is a slight tendency towards extension of sloughing surface on lower posterior part of the leg. He has power of sensation left in leg, but it is distinctly discoloured. This was not noticed yesterday.

15th.—No change in extent of sloughing; is lively and cheerful; does not complain of much pain, but says that he has sudden shooting pains which flash through his leg from the knee downwards, and which disturb his rest. Feels considerable tenderness in the newly discoloured tract. Temperature 99·6°; pulse 88.

26th.—Great extension of discoloration has taken place during the last two days, on the outer side reaching to within three inches of the knee, and being absolutely blue three inches above the former line of demarcation. This new line of demarcation is much higher on the outside than elsewhere. General health good; the newly discoloured tract is very tender.

29th.—Redness and tenderness spread up to the head of the fibula on the outside, and within four inches of knee in front of shin.

February 2.—Patient growing somewhat weaker, but the size of the discoloration is unchanged; perhaps, however, it is darker.

7th.—This morning patient seems to experience some difficulty in breathing, and says that he has done so for some two days past. Had been expectorating freely. He takes his food well.

9th.—Pretty well this morning. Breathing better; temperature 98·2°; respirations 32; pulse 88, very weak.

10th.—This morning a great change was found in condition of leg; a small opening could be seen at the top of the sloughing surface on the outer side, from which blood-stained pus was plentifully exuding. Patient weaker. Temperature 98·8°; pulse 92; respirations 30.

11th.—Discharge continues, and patient is apparently gradually sinking; face looks much emaciated; temperature 98°; pulse 84, weak.

14th.—Patient too ill to bear much examination. Discharge continues; the discoloration is extending up the inner side of the leg. Patient very weak and visibly sinking; takes no notice of anything arouud him, and scarcely comprehends when spoken to.

16th.—Patient worse. Discharge from leg still coutinues. There is a patch of blue discoloration on the heel of the other foot.

18th.—Patient died this morning.

Mr. Godlee's report supplies the following notes of the post-mortem examination:—

*Post-mortem, twenty-three hours after Death.*—Rigor mortis absent; body very much emaciated; putrefaction advanced. Costal cartilages not completely ossified; division with knife possible. Lungs: Both good examples of atrophous emphy-

sema. The lower lobe of the right lung pneumonic; substance solid, granular, mottled red, grey, and yellow; exudation reddish, slightly spumous; not complete absence of air. Pleura corresponding to this showed an early stage of pleurisy; rough, covered with a thin papillary exudation. Between lower and middle lobes some yellowish solid lymph; small old calcareous nodules at apices. Heart: Thickly covered with white patches; coronary arteries markedly atheromatous, standing out as calcareous cords on surface. The aorta and vessels of right lower limb removed together; arch of aorta swollen and inelastic, but not showing calcareous plates. Considerable calcareous degeneration in lower abdominal aorta and iliacs; slight at upper part of femoral; considerable in splenic and coronary; scarcely any in femoral, except at Hunter's canal, where disease was extensive. In upper part of popliteal space was a small tumour of ovoid shape, soft, and evidently an aneurism; above it the femoral was plugged as high as the entrance to Hunter's canal, where a large branch passed across the limb through the vasti; below it artery small; very much calcareous degeneration; patent. Veins plugged for some inches below, pervious above tumour. Liver small, contracted, congested, somewhat cirrhosed. Kidneys natural. Spleen small, firm, fibrous. Brain: Vessels at base considerably atheromatous.

## THE VICTORIA-PARK HOSPITAL.

### CASES OF INTRA-THORACIC DISEASE.

[Communicated by Mr. G. C. Franklin, Resident Medical Officer.]

(*Continued from page* 496.)

*Case* 5.—*Chronic Phthisis—Broncho-pneumonia—Aneurism of Arch of Aorta—Death.*

(Under the care of Drs. BENNETT and ANDREW.)

S. B., a labourer, aged 41, formerly in the army, was admitted on June 5, 1872, under the care of Dr. Bennett. Patient said he was quite well until a year and a half ago, when he "caught a violent cold." Was better in the summer, but worse again in the winter. Has coughed much and had some hæmoptysis lately; has lost flesh; has had no diarrhœa.

*State on Admission.*—Thin and pale-looking; general condition very feeble. Physical signs on examination of chest:—Slight flattening under left clavicle; considerable dulness in both infra- and supra-clavicular regions; respiration deficient, but breathing not tubular, nor any increased vocal resonance; heart-sounds preternaturally loud; no moist or other morbid sounds.

July 25.—The patient was discharged in much better health generally than on admission. The physical signs remained as above, except that he had some pleural creaking over the front of the left chest for a day or two. It was also noted that his voice became hoarse for a few days. He complained of no pain or palpitation.

On July 21, 1874, the patient was readmitted, this time under the care of Dr. Andrew. Since he left the hospital he has suffered almost continuously from severe pain in the præcordial region, which has been increased at times by exertion. Has not had much cough or expectoration, but has lost flesh markedly the last six weeks.

*State on Readmission.*—Cyanotic, anxious-looking, and somewhat emaciated. Finger-nails not clubbed; tongue dry and furred; appetite bad; bowels confined; breathing laboured; respirations 32 per minute; voice very hoarse; temperature 104·8°; pulse 110, regular, hard; arteries rather rigid; no œdema; no headache or pain except in the left chest; sleeps badly; urine, specific gravity 1025, no deposit, no albumen, abundant chlorides. Physical examination of chest:—Dulness under both clavicles; moist râles at left; prolonged expiration marked, but no moist râles under right. Marked dulness down to angle of scapula behind on left; also on right, but less marked; large moist râles behind, more on left side. Heart's area of dulness small; no abnormal sounds.

23rd.—Temperature has been both evenings about 104°. Marked cyanosis. Pulse full and regular, 120. No cough or expectoration. Signs of pneumonia at right base. Evening: Temperature 102·2°, pulse 116, respirations 36. Feels much easier since the bowels have been open. Voice remains hoarse.

24th.—Restless night; free from pain, but decidedly worse. Temperature 101·8°.

26th.—Died quietly.

*Autopsy.*—Body much wasted. Left lung was easily removed; slight adhesions at apex. There was an old cavity and cicatricial tissue at apex, with here and there a cheesy nodule. The upper lobe was emphysematous; the lower very œdematous. Also throughout the lung were greyish-white masses, as a rule about the size of small shot. On microscopical examination, they proved to be the result of an aggregation of cells within the vesicles and bronchioles of lung, and not to any proliferation of cells in the substance of the lung itself. The right lung was firmly adherent to the thorax—red, friable, and studded with small bodies like the left. In both lungs the muscular fibres of the bronchial tubes were visible. The bronchial glands were not cheesy. Larynx healthy. Heart flabby; valves acted, and were in no way thickened. The aorta dilated from its commencement to the termination of the descending portion of the arch, the dilatation being chiefly in the convexity of the arch, and most marked at the descending portion, where it was firmly adherent to, and had eroded considerably the bodies (left side) of the dorsal vertebræ from the third to the seventh. The recurrent nerve was in such a situation as would allow of its being readily pressed on by the tumour, and the left bronchus was slightly narrowed just below the bifurcation. Though the tumour could be felt readily from the œsophagus, it seemed that there was no pressure on it, it being protected by the adhesion of the tumour to the vertebræ. The sac, thus extending from the aortic opening to the end of the arch, consisted of two distinct sacculations; the walls were thickened, and contained calcareous plates. The first sacculation was in the transverse portion of the arch; it pointed backwards and contained some clots. In it were the openings of the three large vessels—that of the left carotid being only about one-thirty-second part of an inch in diameter, though the vessel beyond was not shrunken. The second enlargement was separated from the first by a well-marked ridge, and extended from it to the termination of the aneurism. It grew backwards, was firmly adherent to the vertebræ which it had eroded, and was crossed by the left recurrent nerve. The other viscera were healthy.

*Case* 6.—*Bronchitis—Scirrhous Tumour in Thorax—Death.*

(Under the care of Dr. WARD.)

H. G., aged thirty-seven, clerk, was admitted on June 10, 1874, under the care of Dr. Ward. Patient said he had suffered from bronchitis more or less for three years, but had had no serious illness. Has been a spirit drinker; and had some years previously contracted syphilis.

*State on Admission.*—A rather thin, spare man; dyspnœa marked; cough troublesome; expectoration abundant and frothy; temperature normal. Complains of being constantly restless at night; dreams a great deal, and is giddy now and then. No marked dulness of chest anteriorly; some flattening under clavicles; breathing more bronchial under the right than the left; considerable rhonchus all over the chest, more so on the left side. Posteriorly some dulness extending from the base on the left side upwards to the angle of the scapula, on right from the base for about a hand's breadth. Tactile fremitus over dull area somewhat diminished. Rhonchus and sibilus throughout. Heart: Epigastric pulsation very distinct, with heaving impulse, and loud second sound over pulmonary artery; as far as could be ascertained, *in situ*. Liver not depressed.

July 3.—Patient's condition somewhat improved. Has had restless nights, with headache and dizziness. These symptoms were much relieved, however, with hydrate of chloral, gr. xx. The physical signs remained the same, with the exception that those of bronchitis were less marked.

20th.—Two days ago became rather suddenly cyanotic; marked œdema of legs; a systolic murmur at lower part of sternum heard also (probably tricuspid regurgitation). Gradually became worse, and died to-day.

*Autopsy.*—The thorax only was examined. There were some pleuritic adhesions on the right side easily broken down, but at the back the lung was firmly attached to the vertebræ by a firm hard growth. On the left side, from about the level of the nipple down to the diaphragm, the lung was firmly adherent to the chest-wall (the heart not being displaced) by a large mass of new growth which required to be cut through to allow of the removal of the lung. There was effusion into the upper part of the left pleural cavity. This mass of new growth was firm and hard, and had the general characters of scirrhus, and seemed to spring from the body of the eighth or ninth dorsal vertebra, two-thirds of it being on the left side,

and one-third on the right of spinal column. It grew out behind the pleura and along the ribs on the left side, pushing the lung away, the lower part of which lung was compressed and airless. The diaphragm was involved on the left side, and a small portion of the spleen was removed with the mass, but did not seem to be affected. The lungs were otherwise fairly healthy. Heart healthy.

*Remarks on Cases 5 and 6.*—These two cases have been reported together because in both cases the post-mortem examination revealed a tumour which before death had not been diagnosed, nor even suspected. With regard to Case 5, the patient was so ill with broncho-pneumonia (temperature 104°) when admitted the second time, that his chest was not examined so thoroughly as it would have been had he not been so ill. He had, however, two symptoms certainly—viz., continuous pain in præcordia, and voice always hoarse; but he had no stridor, no pain of the back, no cardiac murmur or increased area of dulness. He had old phthisis, which was diagnosed when he was admitted at first; also acute broncho-pneumonia on readmission, which was sufficiently evident; but that he should have had so large an aneurism is at once interesting and instructive. In Case 6 the physical signs were those evidently of bronchitis, and of effusion into both pleuræ—more at left. This was exactly what was to be expected also from the man's general condition. He complained of no localised pain; there was no displacement of viscera, no glandular enlargement anywhere,—in fact, nothing to lead one to suppose that he could be suffering from a large cancerous growth. Practically this was unfortunate, as the man, after having been in the hospital two or three weeks, manifestly improved, and a not altogether unfavourable prognosis was given to the friends. His condition, however, became worse about a week before death.


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# Medical Times and Gazette.

SATURDAY, NOVEMBER 14, 1874.


## PROPOSED AMENDMENT OF THE SCOTTISH UNIVERSITIES ACT.

Members of Scottish Universities will at this moment feel a considerable amount of interest in the fate of a Bill which the General Council of the University of Glasgow have resolved to submit in draft to the Lord Rector and Lord Advocate, for the amendment of the Scottish Universities Act. For, although the Bill emanates from the members of the University of Glasgow, the draft of it has been submitted to a special meeting of members of the committees of the four Scottish Universities, and by them adjusted and approved of. The most important principle involved in this agitation is that of an increase in the share in the government of the University which its members possess as members of its General Council. The privileges which are enjoyed in this relation are somewhat difficult to comprehend for one unacquainted with the Scottish Universities' system of government. Neither is it an easy matter to give at once a short and correct account of the function of the General Council of a Scottish University; so that if we wish to indicate, even in outline, the position which it holds in the University, we must consider the whole machinery of which it forms a part.

The Universities (Scotland) Act of 1858 and the Reform Act of 1868 made provision for the government and discipline of the Scottish Universities, and conferred the franchise on the members of their several General Councils. Neglecting, as not essential for our present purpose, some considerable differences which exist in the various Universities, we may state that there are included in their government the Chancellor, the Rector, the Principal, the University Court, the Senate, and the General Council. Of these, the Chancellor is elected for life by the Council, the Rector for three years by the students, and the Principal for life by the Crown or otherwise. The Senate consists of the Principal and the whole professors; the General Council—of the Chancellor, the professors, all duly registered graduates of the University, and the members of the University Court; and this University Court, in its turn, may be said to be composed—somewhat differently, indeed, in the several Universities—of the Rector, the Principal, an assessor appointed by the Chancellor, an assessor appointed by the Rector, an assessor elected by the General Council, an assessor elected by the Senate, and, in some cases, one or two members more. Thus constituted, the University Court is the most important part of the government of Scottish Universities, to which it is peculiar—exercising, as it does, a considerable patronage, and controlling the studies, degrees, and finance of the institution, while it forms a general Court of Appeal in subjects where professors, graduates, or students may be interested. While this important position is enjoyed by the Court, the General Council is, on the other hand, powerful only to speak. Meeting twice a year, perhaps, the members talk much, and appear to exercise functions of great moment; but they possess in reality no direct executive power whatever; their position, indeed, is not unlike that of Convocation in the English Universities. The General Council possesses, however, other and greater influence in the affairs of its University, but this may be exercised through such a variety of channels that it can be estimated only with the very greatest difficulty. In the first place the Council elects the Chancellor, who, in his turn, elects his assessor with a seat in the Court, and in the not unfrequent event of an equality of votes among the students, chooses the Rector, the President of the Court. The Council also sends its own assessor to the Court. It may therefore be said to be represented in the Court by two members, and occasionally by three—certainly a fair proportion of the whole.

For some years, however, the General Councils of all the Scottish Universities would appear to have felt the necessity of further strengthening their position in their *Alma Mater*, and of having a more direct hand in its government. It is probable that a sense of the barren result of their deliberations and resolutions may have first stirred the members to find means for increasing their influence in the executive quarter; but they are now agitating for considerable alterations, not only in the constitution of the Court, but in their own powers as the Council. Thus, while the Council of the University of

Glasgow desire to obtain Parliamentary power to elect three additional members of the Court, and that of each of the other Universities two additional, they also introduce certain clauses into the Bill which will empower them to hold special meetings, to petition the Sovereign with or without the University Court, and to communicate with each other by means of committees.

It was not to be expected that at the Glasgow meeting such a proposal as this draft Bill implied would pass unopposed through the hands of the Council, and with the assent of members of the Senate and of the Court who were *ex officio* present. To the motion that the draft Bill, of which the substance has been indicated, should be laid before the Lord Rector and the Lord Advocate, Professor Ramsay moved as an amendment that the consideration of the Bill should be in the meantime delayed, that the Bill be transmitted to the Court, and that the Court should be requested to transmit it to the Senate, and to report on the result. After a spirited discussion, the motion was carried by thirty-two to twenty-three votes. It would further appear that Dr. Lyon Playfair last month met a number of the members of the Councils of the four Scottish Universities, when he expressed himself as agreeing with the general principle of the draft Bill, and said that it would be desirable, in the interest of the Universities, to extend the representation of the Councils in the University Courts. At the same time Dr. Playfair considered it important that any measure on the subject should be a Government measure. Such is the state of matters at present; in a few months we shall probably hear more about the subject. We have purposely avoided all reference to another clause in the proposed Bill, as it has little or no connexion with the chief point which the Council desire to gain. This clause provides for the abolition of the system hitherto in use in elections to the office of Rector of the Universities of Glasgow and Aberdeen, by which the students voted in "nations" or classes, determined by their place of birth. Instead of being chosen by this system, the Rector would in future be elected by a majority in number of the votes of the matriculated students of the University.

## PROFESSOR TYNDALL ON TYPHOID FEVER.

Professor Tyndall has during the present week been addressing the public in the columns of the *Times* on the subject of typhoid fever in such a fashion as to justify the old saying, "*Ne sutor ultra crepidam.*" Professor Tyndall seems simultaneously to have discovered that Dr. Budd, of Clifton, had written a book on typhoid, and that there was at least a portion of our profession which held that typhoid was invariably propagated by direct or indirect contagion. Thus fortified by a consideration of a purely *ex parte* statement, without apparently attempting to hear what was to be said on the other side—that is to say, knowing only one side of the story,—the Professor boldly proceeds to lay down the law and to anathematise all who do not hold with him. On a former occasion we had the duty of pointing out the singular incapacity of Professor Tyndall for dealing with biological problems. He sets to work as a purely physical inquirer, most of whose problems are capable of a clear demonstration in accordance with mathematical laws. It is not so in medical science. In it facts must be collected with the very utmost care; one set placed against another set; and even then, when we seem to have come to a satisfactory conclusion, we have no certain means of verifying our hypothesis.

In his first letter Professor Tyndall soon proceeds to give a sketch in outline of Dr. Budd's book, especially of the account therein given of the North Tawton outbreak, which he holds to be quite conclusive as to the mode of invasion—to the mind of any right-thinking man. So, no doubt, it is to this extent—that in that particular instance the fever was spread by more or less direct contagion; but there are also instances where, as far as we can see, this key will not solve the problem. It is not by single cases, but by cumulative instances, that such theories become well established.

But if there is one thing more than another which enables us to gauge Professor Tyndall's capacity to judge of these things, it is his description of the pathology of typhoid. It is all very well for him to talk about dealing only with such subjects and such evidence as any man who can reason justly may be capable of judging aright; but how if he neither know the things themselves nor understands the language in which they are described? This is well shown in the following quotation. Dr. Budd says—"A certain number of Peyer's patches, or of the isolated follicles, as the case may be, have acquired a great increase of thickness, and stand out in relief on the internal surface of the gut." This Professor Tyndall translates as follows:—"The pustules or protuberant patches, called 'Peyer's patches,' thicken and stand out in relief from the surface of the gut." What medical man could think or speak of Peyer's patches as "*pustules*"? At best he only sees with another man's eyes; and if, in addition to this, he only imperfectly understands the language in which his observer speaks to him, how can the basis of his argument, a flaw in which is necessarily fatal to his whole scheme of reasoning, be considered satisfactory? It is a well-known saying that in medicine there are many more false facts than false theories; and upon the whole it is true.

Professor Tyndall is evidently quite sore with the medical journals for the reception of his experiments on air-borne germs with electric light and cotton-wool. This seems even now to be hauled into the indictment, for he appears to think that it is owing to their opposition or neglect that the contagious theory of typhoid has not been generally accepted. Here, again, is a state of ignorance which surely unfits a man, however eminent otherwise, to come forward as a law-giver on a given subject. If he would refer to the back numbers of our contemporaries, as well as our own, he would find how carefully the subject has been considered, how eagerly clues have been followed up, and that finally the conclusion has been come to that in a certain number of cases typhoid is undoubtedly propagated by typhoid matter, but not very many would speak of the absolute impossibility of enteric fever being generated *de novo*. But perhaps Professor Tyndall was too angry with these papers, for laughing his germ experiments to scorn, to even look at them.

Yet again, the evil and mischief arising from a man like Professor Tyndall attempting to speak, with all the weight of his authority in a totally different line of research, with equal authority on a subject of which he is palpably ignorant, does not end here. In one way he has undoubtedly done good, inasmuch as he has very forcibly drawn the public attention to the great importance of disinfection; a lesson which it is hard—very hard—for us to teach with success. But, unfortunately, he has also enforced the very moral alluded to in these columns not long ago. Stinks and filth, foul drains, and fæcal accumulations are harmless as long as typhoid can be kept away; disinfection is all in all. As he says—"Ashpits fail to develope it; putrescence fails to develope it; stench fails to develope it; even the open privy is powerless as long as it is kept free from the discharges of those already attacked." But we know, practically, that this is far from being the case. Have we not from such sanitary evils an infinite variety of other disorders? Do not those dwelling in such habitations, when attacked by disease, suffer out of all proportion to those who live in healthier localities? Are there not multitudes of cases exacerbated by such surroundings, and the fatal results in these occasioned quite as much from air-poisoning as from

the malady itself? But of these and such-like facts Professor Tyndall either is, or seems to be, totally ignorant. Disinfection, in which we believe most firmly, is only one thing, not everything; sanitation is at least equally important. Again we say, "Let the shoemaker stick to his last,"—let Professor Tyndall attend to his beams of light, and those phenomena about which he can at least speak intelligibly, and leave biological inquiries to those who have been better trained to pursue them.

## CORONERSHIP FOR CENTRAL MIDDLESEX.

The Sheriffs have summoned a special County Court, for the election of a successor to Dr. Lankester, at Park-crescent, Portland-place, on Tuesday next, the 17th inst., at eleven o'clock in the forenoon. We have not observed lately any evidence that Mr. Mortimer Granville is still a candidate for the vacant Coronership, so we may, we suppose, consider that there are only in reality four candidates now in the field—viz., Messrs. Boulton and Langham, solicitors, and Drs. Diplock and Hardwicke; and we are very glad to find that these gentlemen have "mutually agreed that they will not canvass or bring to the poll, either themselves or by their agents, any parties who may be disposed to vote by virtue of holding ground in any cemetery." It will be remembered that the legality of votes in virtue of freeholds in graves was one of the main points in dispute that led to such prolonged, expensive, and not very creditable litigation after the last election to the Coronership for Western Middlesex, and it must be acknowledged that it is most desirable to avoid the possibility of any such dispute arising again. As the present election will certainly be a contested one, the formal nomination only of the candidates will take place on Tuesday, and the declaration of the day and hours of the poll; and this will probably be fixed for Thursday, the 19th, between eight o'clock and four. Apparently, the contest between Medicine and Law will be very strenuously and earnestly fought out; and we must again say that we hope only one medical candidate will go to the poll. It will surely be quite possible to tell by Tuesday or Wednesday next which of the two medical candidates we have named is likely to receive the largest amount of support; and it would be a pitiably selfish and narrow-minded mistake to throw the office into the grasp of a legal candidate by splitting the medical interest. We appeal therefore to Drs. Diplock and Hardwicke, and to those gentlemen who are influential on their committees, to avoid this danger—*i.e.*, unless personal interest is to be suffered to outweigh in importance the maintenance of the principle that a coroner should be medical rather than legal.

The main arguments in support of this principle were set forth with such admirable terseness and lucidity by Dr. William Farr in a letter written from the Registrar-General's Office to the chairman of the late Dr. Lankester's committee in 1862, and which we published at that time, that we reproduce the main part of it here. Dr. Farr said—

"I attach the greatest importance to the office of coroner, as, when properly filled, it prevents crime, dissipates suspicion, and discovers the causes of death. Medical knowledge is necessary—firstly, in judging from the preliminary information whether inquests shall be held; secondly, in conducting the inquiry; thirdly, in deciding whether medical or scientific witnesses shall be called; fourthly, in instructing the jury; and, fifthly, in returning the causes of death under the Registration Act. Death is, in some cases, an impenetrable mystery, and in nearly all cases its physiological causes are entirely beyond the ken of non-medical coroners, who thus are liable to mislead, or to misdirect, or to fail in aiding the juries to sift medical evidence, and to return in their verdicts the true causes of death. The object of the office is thus defeated. Inquests were held in England on 21,801 bodies, according to a recent return, and only in 482 cases was the verdict 'Homicide.' This shows how many of the inquests are purely medical. The coroner's jury instituting only a preliminary inquiry, the accused persons detected were tried by the judges of the land, and 109 were convicted. This part of the procedure is very properly conducted by the highest judicial authorities; the duties of a coroner are of a totally different character."

The statistics made use of are comparatively old, but the arguments based on them are as good as ever, and the letter points out most forcibly the reasons why a coroner should, if possible, be chosen from the members of our profession.

We hope that nothing will prevent our professional brethren from exerting, in favour of one selected candidate, all their power and influence to secure the medical succession to the Coronership of Central Middlesex, and then we shall have the gratification of again recording the triumph of the cause for which Mr. Wakley and Dr. Lankester fought, as leaders, with such ability, energy, and success.

## THE WEEK.

### TOPICS OF THE DAY.

Some remarkable discrepancies in the salaries of the medical officers of the parish of Islington were mentioned at a meeting of the Board of Guardians last week. After a long discussion a motion for a committee to investigate and report on these discrepancies was carried. Such discrepancies obtain in other places besides Islington. The inequalities at Islington are as follows:—Upper Holloway, with 1045 acres and a population of 35,562, had an average of 448 cases per quarter, the medical officer receiving £100 per year; Lower Holloway, with 380 acres and a population of 29,141, had 176 cases, medical officer £100; Highbury, 857 acres, population 32,445, cases 261, salary £100; Barnsbury, 135 acres, population 19,458, cases 152, salary £100; St. Mary's, 150 acres, population 14,826, cases 99, salary £100; Canonbury, 240 acres, population 21,969, cases 204, salary £90; and St. Peter's, 150 acres, population 29,290, cases 586, salary £120.

"A Country Surgeon," writing to one of the daily newspapers, complains that "a man employed as a brickmaker, having a wife and four young children, wishing to emigrate to New Zealand came to me, bringing with him a printed form from the agent-general for me to sign. Before doing so I should have to examine each of the family minutely, as it was necessary to state if they had been vaccinated, and other minute matters involving considerable loss of time. The man stated to me that his average wages were 15s. a week, and his wife earned nothing. As I could not expect him to pay a fee, I applied to the agent-general, who replied to the effect that the intending emigrants must pay themselves. Now, sir, is it right that what little money intending emigrants have should be paid away in doctors' fees instead of in what clothing, etc., is necessary for their new home? And if not, is it fair to expect medical men to examine and give certificates to these persons for nothing?" The complaint of "A Country Surgeon" is founded in reason and justice. It is high time that the value of medical certificates, whether for emigrants or others, should be duly appreciated. This will never be the case so long as certificates of this kind are given as a matter of course, and without any remuneration to those furnishing them.

Lord Derby was, on Saturday last, at a crowded meeting of the students of the University of Edinburgh, selected to fill the office of Rector by a very large majority. The result of the polling was received with loud cheers. Amongst others nominated were the Duke of Argyll, Sir W. Fergusson, Dr. Lyon Playfair, Sir W. Stirling Maxwell, Mr. John Bright, Mr. Tennyson, Mr. Darwin, the Marquis of Salisbury, the Duke of Buccleuch, the Duke of Edinburgh, and the Earl of Rosebery.

Mr. Haviland, the Medical Officer of Health for the combined

Sanitary Authorities, at the quarterly meeting, held on the 24th ult., of the delegates of the Northamptonshire Combination of Sanitary Authorities, stated in his report, which he read to the meeting, that he had a few days previously had an interview with Mr. Sclater-Booth, the President of the Local Government Board, and the First Lord of the Admiralty, and that he had laid before the latter his plans of geographising disease, in the hope that he would support his scheme for thus portraying the distribution of those causes of death with which it is the special mission of sanitary authorities and their medical officers of health to grapple. He pointed out the fact that his basis map had become recognised by the Government, and had been used, in consequence of its great accuracy, to illustrate the Census reports for 1871; and that the late Government, through the recommendation of Major Graham, the Registrar-General, had accorded to him a grant for defraying the expenses of correcting the errors in their original official map. He suggested that this map might now be used by medical officers and sanitary authorities for the purpose of illustrating disease-distribution either generally or on a more limited scale, as in the portrayal of the distribution of disease within sanitary areas, in accordance with the plan he had adopted to illustrate his report for July last. Mr. Haviland exhibited an apparatus, called the "Universal Disinfector," for the disinfection of water-closets, etc., which has been adopted both by the naval and military authorities.

### THE IDENTIFICATION OF DESERTERS.

A DISCUSSION has been going on for some time, in several of our contemporaries, on the subject of devising some means by which it might be possible to identify deserters presenting themselves for re-enlistment. The crime of desertion has now become so common that, we believe, the military authorities are utterly unable to attempt the recapture of large numbers of men who absent themselves without leave. But, not content with this overt infringement of martial law, it has become a common practice for deserters to present themselves to other regiments and depôts for re-enlistment, in order to obtain the bounty-money, etc.; and there are men who have successfully imposed upon a recruiting staff not once, but several times.

Formerly, we believe, the desired protection was obtained by a system of "cross-cupping," the scar left by this slight operation sufficing to show the inspecting officer that the recruit under examination had already received the shilling; and, more recently still, it was the custom to mark deserters with the letter "D.," and men of incorrigibly bad character with the letters "B. C.," by means of puncturing needles and Indian ink, before turning them out of the service, thus insuring their utter exclusion from the ranks for the future. Both these methods of protecting the revenue of the country have, however, been so loudly condemned that they have fallen into disuse, and the ready-witted rascals of the barrack-yard reap a golden harvest accordingly. A new suggestion is, that all recruits should be vaccinated on enlistment. This, we believe, is already one of the rules of the service, and can therefore be of no utility, more especially as the practice of revaccination is not by any means confined to the military portion of the community. But, as an improvement on this idea, another suggestion has been made that the fresh vaccination marks should be tattooed, by which means the already accepted soldier could be readily distinguished.

In a country like our own, where the civil rights of the community are so jealously watched over, it is very difficult to devise any scheme which shall effectually guard against the depredations of this class of evildoers; but as the practice is becoming one of everyday occurrence, and is carried on with more or less of impunity by hardened offenders, who boast of their success in constantly enlisting and deserting without detection, it is clear that some means should be adopted to protect the public, and put a stop to such a petty system of swindling. Cross-cupping, which is neither painful nor dangerous, might perhaps be resorted to in the case of all deserters retaken; one advantage of this course being that the scar would not indelibly mark the bearer with the stigma of infamy as if he were branded with letters which tell their own tale.

### ON FORCIBLE TAXIS IN STRANGULATED HERNIA.

THE *Centralblatt für Chirurgie* for September 12 and 19 contains a long and interesting article by Max Scheide, of Halle, on the advisability of employing forcible taxis in strangulated hernia. His statistics are very satisfactory, but, like all hernia statistics, they are open to the obvious objection that for the definition of strangulation no hard and fast rules can be laid down; and there can hardly fail to be left on the mind, after reading the paper, a suspicion that some at least of his cases would have been included under the head of incarcerated or obstructed hernias by most English surgeons. It will be seen that the proportion of deaths in the cases operated on is unusually high, but for this fact his explanation is a rational one, for, as will be seen, he never resorts to herniotomy unless there be some distinct evidence of advanced inflammation of the sac or gangrene of the gut. Space will only allow us to give a brief summary of his communication.

He begins by remarking that prolonged and forcible taxis is condemned on all hands at the present day, and complaining that "the almost universal enthusiasm" in favour of early operative interference quite drowns the feeble voices of its advocates. But he is convinced from his own experience that this mode of treatment is far too much neglected by surgeons. "If," says he, "Thiry went too far in asserting his belief before the Belgian Academy that the taxis is always successful if properly employed, it is, nevertheless, my belief that, with hardly an exception, all recently strangulated hernias will yield to a skilfully applied taxis, and that a great majority of those in which strangulation is of longer duration should be replaced without having recourse to an operation—that is, all cases in which there is no symptom of severe inflammation or commencing gangrene; or, in other words, when there is no œdema or discoloration of the skin." Then follow the statistics of thirty-seven cases observed by himself between April, 1868, and August, 1874, under which he includes only femoral and inguinal hernias. Of these, forty-one were replaced, with one death from "reduction *en masse*" after forty hours' strangulation, of which he gives a detailed account further on. Ten were submitted to operation, of whom five died. The periods of strangulation are given in the following table:—

*Cases Successfully Reduced.*

| | |
|---|---|
| Under 12 hours | 14 |
| From 12 to 21 hours | 11 |
| 2 days | 7 |
| 3 „ | 7 |
| 6 „ | 1 |

*Cases Operated on.*

| | | | |
|---|---|---|---|
| 2 days | 2 | 1 cured. | 1 died. |
| 3 „ | 2 | 0 „ | 2 „ |
| 4 „ | 1 | 1 „ | 0 „ |
| 5 „ | 2 | 2 „ | 0 „ |
| Unknown | 3 | 1 „ | 2 „ |

Of the fatal cases three were altogether *in extremis* on admission to the hospital—one died during the operation, and the other two survived only a few hours; one in whom a large piece of omentum was inflamed died the day after the operation; and in the fifth case "reduction *en bloc*" had been accomplished before admission, and the constriction was not reached at the time of the operation, death occurring on the fifth day from general peritonitis and gangrene of the gut. Of the five successful cases two had been submitted to

energetic taxis without result, and in three the operation was absolutely indicated by gangrene of the omentum and intestine.

It is not necessary to follow the author into his summary of the statistics of other surgeons, as it is well known that those usually published show a higher mortality. He confesses that Halle is a particularly favoured situation, inasmuch as the means of conveyance are easily obtainable, and the poor people show a wise fear of allowing their hernias to go long without medical advice. As a result of this, half of his cases—viz., twenty-five—were seen within the first twenty-four hours, and were relieved by immediate taxis; but, as he points out, there is still a series of sixteen in which strangulation had existed for from two to six days, of which all but one had been previously submitted to a more or less energetic taxis with or without chloroform, and yet, with the one exception of a reduction *en bloc*, mentioned above, all were replaced by him without extraordinary difficulty.

The reason of his success he attributes to the fact that he is not afraid to employ greater force than is the habit with others; but he is always careful to come to some definite conclusion as to the condition of the contents before the taxis is attempted. Gangrene of the gut or omentum, he thinks, never occurs without œdema of the skin over the hernia; and the sense of fluctuation in the tumour shows the presence of a considerable amount of fluid in the sac, and therefore a marked interference with the circulation in the gut: in either of these cases he at once proceeds to operation.

In pursuit of this idea he thinks the question whether the taxis is to be employed should not be made to depend on the mere duration of the strangulation, as the fact is well recognised that tightness of the constriction exercises a more important influence, and also that in some cases the gut may have become actually gangrenous before fæcal vomiting or other severe symptoms set in.

When the patient is deeply under the influence of chloroform, and a definite diagnosis as to the nature of the hernia has been arrived at, he proceeds the following way:—With the thumbs placed together he exerts powerful pressure on that side of the rupture which appears nearest to the aperture through which it has emerged, moving it first to one side and then to the other, and pressing on the top of the tumour only when it is a very small one. In his successful cases he seldom takes more than five minutes, and never more than a quarter of an hour; "but during this time," he says, "I have always employed a much more considerable force than I have ever seen used by others, or than most would consider justifiable."

The paper concludes with a detailed account of three very interesting cases—one is that which was reduced *en masse* as mentioned above, and the other two cases which were submitted to operation; and also of three patients in whom, after long strangulation and reduction, peritonitis occurred, without leading to a fatal result.

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### HOSPITAL SATURDAY.

The total amount of the collection which has been so inappropriately termed the "working men's contribution" in aid of the London hospitals has not yet been made public. The results known have so far thoroughly justified the adverse opinions which we from the first expressed on the subject. It is not necessary to recapitulate the various reasons which we adduced against the institution of even a Hospital Sunday collection for the metropolis; but, whilst the influential promoters of this movement may at least be congratulated for having set about their work in all good faith and singleness of purpose, achieving the result through a perfectly trifling outlay, the misdirected exertions of the Hospital Saturday Committee would so far appear to have terminated in the collection of a ridiculously small sum, obtained at a cost out of all proportion to the sum realised; and, if the amount actually forthcoming out of the pockets of the *real* working man be ever shown, apart from collections at theatres, subscriptions obtained from members of the Stock Exchange, etc., we imagine that the failure to enlist the sympathies of the very class for whom all this fuss was ostensibly made will be more than ever apparent. It is within our own knowledge that the *employés* of one large firm contributed twenty-four shillings! If Hospital Sunday is to continue as a means of annually assisting the wants of the London charities, we at least hope that Hospital Saturday will never be heard of again, but that the working man will be left to contribute, if so inclined, to the funds of the former, without the assistance of zealous meddlers, who, upon the present occasion, have only succeeded in making him appear ridiculous.

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### INJECTION OF CHLORAL INTO VEINS.

It is well to call attention to a method of producing anæsthesia apparently coming into vogue amongst some surgeons in Paris, which, though it seems to be remarkably efficient, and to have peculiar advantages, is probably not without its dangers. In the *Centralblatt für Chirurgie* (May 9 and September 26) are three short notes of cases in which chloral has been injected into veins. Two are by Oré, who introduced the practice, and are taken from the *Comptes-Rendus*. In the first he shows, as the result of numerous experiments on animals, that three to six grammes of chloral, according to the size of the animal, will produce so complete an anæsthesia that no irritation, however powerful, is felt, not even that of the electric current. The patient lies for from one to five hours in a deep sleep, the respirations in the meanwhile being perfectly regular and quiet. He hopes that it will turn out to be a useful anæsthetic for surgical purposes, as none of the asphyxiating symptoms of the latter appear to arise; and he gives in illustration a case in which it was employed for tetanus occurring in a man fifty-two years old as the result of a smash of the left thumb-nail. He injected nine grammes twice with a very short interval, with the result of producing quiet sleep for eleven hours, and a slight insensibility of the lower limbs lasting for five hours longer. The two following days nine grammes were injected again. On the fourth day of the disease the spasms returned, but accompanied by so much cyanosis that it was thought unadvisable to inject more. Chloral was then given by the mouth, but without effect, and the injections accordingly were resumed. Ultimately, after an intercurrent attack of bronchitis, the spasms disappeared on the seventeenth day.

In the September number he gives a case in which he employed the same means a short time ago whilst removing a sequestrum from the os calcis. Eight grammes were used, and almost immediately a quiet sleep was induced. Since his last communication, however, he seems to have discovered that electricity will rouse animals from the condition thus produced, and he therefore tried in this case the effect of placing one pole of a strong induced current on the side of the neck and the other on the epigastrium. The effect was that the patient could at once answer to his name, but after an hour fell asleep again. He employs an injecting syringe without laying bare the vein, and has never seen coagulation or phlebitis follow.

So much for the bright side of the question; but immediately following is a communication by Tilleaux, taken from the May sitting of the Société de Chirurgie de Paris, telling of a case of trismus following the puncture of a hydatid cyst of the liver in a woman. Chloral administered internally was at once returned, and the patient was dying. Four grammes were now injected, and followed by a diminution of the symptoms. Ten produced a quiet deep sleep. At the fourth injection, however, after the return of the spasms, when twenty grammes were used, the patient died. The autopsy showed clotting throughout the cephalic and axillary veins,

and white fibrinous clots in the right auricle and left ventricle. Mention is also made of experiments by Verneuil on varicose veins, showing the coagulating power of chloral, and observations by the author himself on cases in which gangrene had followed its injection.

THE ADVANTAGE OF WOODEN HOSPITALS FROM A SANITARY POINT OF VIEW.

In another column the reader will find a detailed account of what would appear to be a very interesting subject, introduced by Dr. John Day, of Geelong. During the last few years it has been observed in various parts of the world that some diseases, such as pyæmia, erysipelas, and puerperal fever, which are so common in ordinary hospitals, rarely occur in hospitals constructed of wood. Dr. John Day finds that certain kinds of wood, such as red or yellow deal, American pine, and white deal or spruce, possess the property of acting on atmospheric oxygen, and converting it into peroxide of hydrogen. A few weeks ago (October 24) we referred to Dr. Day's recommendation of the mineral oils as disinfectants. In regard to the woods which have been named, Dr. Day believes that the property which they possess of generating peroxide of hydrogen is probably entirely due to the turpentine which they contain. That they do possess this property may be proved by their ready reaction to the guaiacum and blood test. The author adds that, if his theory is correct, soap should never be used in washing the floors of hospitals, for all alkalies destroy peroxide of hydrogen, and, of course, the free alkali in the soap would have that effect. Professor Parkes and others have observed that in hospitals where erysipelas prevails the disease spreads more rapidly when the floors are washed than when they are kept dry. The floors of hospitals, therefore, should be waxed and polished. This is usually effected by first staining the floor with burnt umber, rubbed down with linseed oil, and then covering it with a thick paste made of yellow wax and oil of turpentine, which should be rubbed in and afterwards polished. Thus, two of the ingredients used in this process—the linseed oil and the oil of turpentine—possess the property of continuously generating peroxide of hydrogen. In hospitals for contagious diseases the bedding may be stuffed with thin shavings of Baltic deal or American pine, and frequently changed.

GASTROTOMY IN STRICTURE OF THE ŒSOPHAGUS.

In the *New York Medical Journal* for August and September, Dr. A. Jacobi, of New York, reports a case of stricture of the œsophagus—most probably of a scirrhous nature—in which he performed gastrotomy upon a woman of fifty-two, who had for some time previously been fed through a catheter. The result was but temporarily successful, the patient surviving until the tenth day. Dr. Jacobi discusses the various circumstances which affect the result in gastrotomy, by comparing his own case with fourteen others which he has collected from various sources. He commenced the external incision below and between the cartilaginous ends of the seventh and eighth ribs, and carried it vertically downwards about two inches and a half. The opening into the peritoneum was about one inch and a half in length, and that into the stomach one inch and a quarter. Eight silk ligatures were carried through the whole thickness of the stomach and through the external integument, and a Carlsbad pin and two silk ligatures were used to close the external wound below the attachment of the stomach. Wet compresses and bandages completed the dressing. On the fifth day the Carlsbad pin and two silk sutures were removed. In his next operation Dr. Jacobi will modify this plan, and instead of sewing the stomach fast in the longitudinal straight wound of the abdominal wall, will attach it firmly all round the wound of the peritoneum and the corresponding portion of muscle and integument, leaving the external wound open and subject to antiseptic treatment. As regards the situation of the opening in the stomach, it was found post-mortem in this case to be situated an inch and a half from the pylorus, midway between the curvatures. Dr. Jacobi believes that an opening near the cardiac end must necessarily give rise to straining and pulling after attachment is complete to the abdominal wall, and that it is only by making the incision near the pylorus that these can be avoided. The stomach in the present case was permitted to remain completely at rest; food, stimulants, and quinine were given by the rectum only; morphia as a rule subcutaneously; and the temperature was taken in the vagina. To the fact that the rectum retained every injection is doubtless in a great measure to be attributed the comparative success of the operation. Almost certainly the immediate cause of death was septicæmia, from purulent infiltration of the tissues around the wound.

MORAL EFFECTS OF ABUNDANCE OF DRINK.

In a note accompanying his papers on the wine districts of France, our correspondent directs our attention to the moral aspects of the question. If the assertion of the tectotalers were correct, that the abundance of drink is the cause of drunkenness, and that people who once taste go on from bad to worse, inevitably, then, we should expect to find drunkenness rampant in districts where wine and brandy are the almost sole products of the country, and can be used without stint. On the contrary, in the Saumur district, the testimony was that the peasants and country people were hard-working, sober, and economical to a fault. Out of 150 workmen and 50 women employed by an eminent manufacturer, not two men were sent away for drunkenness in a year, and not one woman. The workmen have little cottages and neat gardens, with fruit, flowers, and vegetables, and are *économes* and *dur au travail*. In the Margaux district the wife of the peasant proprietor said her children were weaned and brought up upon wine; but there could be no drunkenness in a house so neat and with every mark of frugality. At Cognac, too, the people are sober and industrious, and delirium tremens unknown. Hence abundance of drink will not induce drunkenness amongst these Celtic or Armorican or Acquitanian races. On the contrary, in the city of Bordeaux there is much drunkenness amongst the mixed population of sailors and workmen, who drink the worst wine and have little or no external inducements to morality.

HOSPITAL SUNDAY IN DUBLIN.

Last Sunday, November 8, this movement was inaugurated by the delivery of sermons in St. Patrick's Cathedral, in the morning by the Rev. A. T. Harvey, M.A., Succentor, who preached from St. Matt. xxv. 36, "I was sick, and ye visited me"; and in the afternoon by his Grace the Archbishop of Dublin, who selected as his text Rom. v. 12, "Sin entered the world, and death by sin." Very large congregations were present at both services, and the collections in aid of the Hospital Sunday Fund amounted to £224 15s. 4d., stated to be the largest sum ever taken up in the Cathedral. Next Sunday, November 15, is the day fixed for the general collection in the churches of all denominations (Roman Catholic excepted).

DUBLIN SCIENTIFIC CLUB.

The first meeting of the seventh session took place on Monday evening, November 2, in the lecture-theatre of the Royal Dublin Society. Dr. Fraser occupied the chair. Professor Hull, F.R.S., exhibited, with the aid of the oxyhydrogen microscope, some beautifully prepared sections of lava from Mount Vesuvius, the specimens dating from the middle of the seventeenth century down to the present time. Dr. Stoney, F.R.S., gave a *résumé* of the researches of Dr. Mayer, of America, on the auditory apparatus of the mosquito. Dr. Reynolds showed

and explained his new method for estimating extremely small quantities of chlorine in well-water—a process which possesses extreme delicacy and great advantages over the ordinary method. A liquid of great density, which was exhibited by Professor Barrett, created much interest, as glass and quartz floated upon it with ease, and hence it may be used to detect artificial diamonds. An interesting discussion was excited by Mr. Yeates respecting his newly invented modification of Wheatstone's telegraph, by which the speed of telegraphing is considerably increased, besides possessing other important features. Mr. Yeates had on the table the first working instrument yet constructed. Mr. Grubb also exhibited a new optical instrument.

### EDINBURGH UNIVERSITY CLUB.

The quarterly dinner of the Edinburgh University Club was held at St. James's Hall on November 11, under the presidency of Dr. Dyce Duckworth, honorary secretary, sixteen members and twelve guests being present. The Chairman, in proposing the toast of the evening, referred with satisfaction to the continued prosperity of the Club, and mentioned one or two changes which had recently taken place, alluding more especially to the appointment of Professor Rutherford and the resignation by Mr. Davy of the post of joint-honorary secretary, which he had so long and ably held. Dr. Symes Thompson and Mr. Menzies (Deputy Ranger of Windsor-park) replied for the visitors, and several excellent songs contributed much to the success of the evening.

### ASTLEY COOPER PRIZE.

We wish to call attention to an announcement, which will be found on another page, of the subject for the next essay proposed by the trustees of the Sir Astley Cooper Prize. The treatise will be "On the Anatomy, Physiology, and Pathology of the Sympathetic Nervous System"; and the prize will be awarded under the usual conditions, which are set forth in the official announcement.

### SCHOOL OF PHYSIC, TRINITY COLLEGE, DUBLIN.

The Board of Trinity College have appointed the following examiners, in conjunction with the professors, to conduct the medical examinations in the following subjects:—Materia Medica, Dr. Rawdon Macnamara; Botany, Dr. David Moore; Physics, Rev. J. A. Galbraith.

### HEALTH OF SCOTLAND.

The return for the week ending October 31 of the eight principal towns of Scotland shows that there were 628 deaths; the corresponding week last year they were 584. This large increase chiefly took place in Glasgow and Dundee.

Anatomical Examinations.—The following were the questions on Anatomy and Physiology submitted to the candidates at the primary examination on Saturday last for the diploma of Membership of the Royal College of Surgeons, viz.:—1. Describe the course and distribution of the branches of the ophthalmic division of the fifth nerve. 2. What are the anatomical peculiarities by which the fœtal circulation is distinguished, and what purposes do they respectively serve? 3. Describe the ischium; name the muscles attached to it or in relation with it; and state what are their respective uses. 4. Describe the minute structure of the female breast. State what is the microscopic appearance, and what are the chemical constituents of human milk, and why it is regarded as a typical food. 5. Give the dissection necessary for the display of the internal mammary artery; name its branches, and point out the chief anastomoses which they form. 6. State what is usually understood by reflex nervous action; and give some simple examples of it. The names of the successful candidates will be found in another column. The pass examination takes place this day (Friday).

## MEDICAL NOTES ON A VISIT TO THE WINE DISTRICTS OF WESTERN FRANCE.

(*Continued from page* 531.)

(*From our own Correspondent.*)

Bordeaux—A Visit to Margaux—Frightful Exposition of Mummies at Bordeaux—Arcachon: its Bay, its Oysters, Hotels, and Pine Woods; Cost of Living there—Cognac—The History of Brandy.

From Saumur I came to worship at the shrine of Bordeaux. But before I say a word about wine, let me relieve myself of the indignation I feel at a most painful and disgusting exhibition which I saw under the auspices of an American gentleman at the hotel. The earth around one of the oldest churches in Bordeaux seems to have something peculiarly antiseptic in its nature, so that the bodies buried during ages were converted into mummies. During some alterations at the beginning of this century these bodies were laid bare, and instead of being decently buried again, they were taken out of their resting-places, and ranged upright in a row around a crypt under the bell-tower of the church of St. Michel. Here they constitute a disgusting and demoralising show, which is visited by crowds of people, and I am afraid that the clergy of the church are not ashamed to pocket the profits. A rough fellow with a candle on the end of a stick, such as they have in wine-cellars, goes round as showman. He taps and thumps the bodies to show that they are perfectly sound, tough like leather trunks, and not the least brittle. "See here, gentlemen, is a very tall man; see how powerful his muscles must have been, and what excellent calves he has now! The next is the body of a young woman. Remark the excellent preservation of her chemise, though it was buried four hundred years ago; and see! it is trimmed with lace! The next, gentlemen, is a priest; you can see his *soutane* with the buttons on it. There is a woman with a dreadful chasm in her breast; she had a cancer. The next four are a family poisoned with mushrooms; observe the contortions on their faces from the *coliques* they suffered! See next a very old man, with his wig still awry upon his pate. The next is a poor *misérable* that was buried alive! See how his head is turned to one side, and the body half turned round, in the frantic effort to get out of the coffin, with his mouth open and gasping!" (It is quite true that the attitude is singular, but it does not warrant the inference which the showman draws from it.) But enough of this disgusting mercenary exhibition of the human body in its lowest state of humiliation. We are told by our clerical monitors that the burial of the dead is one of the seven corporal acts of mercy, inasmuch as it hides the inevitable offensiveness and hideousness of dissolution. But if the guardians of consecrated sepulchres, in which people have paid an honest fee to be buried, are to dig them up and cart them off as in England, or make a show of them as here, why I can only say that "cremation" will gain a good many converts. Anyone would prefer being burned to the chance of being thus made a spectacle. So good, too, it must be for the rising population to take off the edge of any salutary horror they may feel at death and decay, or of reverence for the dead! Really, if the clergy will not put down this exhibition, the police ought.

But enough of this. Here I am at Bordeaux, a queenly city, placed superbly in a semicircle on a bend of the Garonne, a river as large as the Thames, and crowded with shipping of all nations. It is difficult to say anything of the city, or of the wine to which it gives its name, without repeating what has been better said by others over and over again. Being here, I desired to see with my own eyes at least one of the birthplaces of the wines whose names are world-famous. One of the merchants of the place took me over his immense *chai* (for so they call the huge cellars situated behind the houses on the *quais*), in which the wondering stranger is shown wine in casks, in bottles, and cases in bewildering profusion. Then said my guide, "The wines of the Gironde (*i.e.*, the whole "Bordeaux" district, as we English call it), are the best in the world; the wines of the Médoc are the best in the Gironde; and the wines of Margaux the best in the Médoc." So to Margaux we went. We were shown on our road the stony and sterile soil, a bed of gravel and broken fragments of limestone, so loose and deep that the roots of the vine can penetrate easily and spread wide

and deep. Much of the country occupied by vines is nothing but a better kind of "scrub," and it is difficult to think of any other crop that would pay its way in some places where the vine flourishes abundantly. We arrive at the station of Margaux, and thence we walk to the neatest of villages, inhabited chiefly by peasant proprietors. To one of these we went, and were gladly received, and, after being regaled with huge bunches of grapes, were shown the *cuvier* (or tun-house, as we should call it). Here the grapes are delivered through a window as they come in tubs from the vineyard; they are *egrappés*—that is, torn off from the stalks, which are cast aside,—then are put into the huge *cuve*, where they ferment for a fortnight, at the expiration of which the new-born wine is drawn off into casks or *barriques*. There it remains "in cool grot and mossy cell," and is allowed to let fall its lees and clear itself. To separate it from the lees, the clear wine is drawn off into fresh casks once in six months, taking care that the operation is done when there is a high barometer, so that the torulæ and particles of ferment may be less inclined to rise and make the wine muddy. In making the wine of the Médoc there is absolutely no manufacture. The grape-juice converts itself into wine by the aid of the agents which Nature provides, and without human intervention. The wine which we saw in this honest peasant's *chai* will come into the market as "peasants' wine of Margaux"—*Vin de Paysan, Margaux.*

Then we visited the Château, a superb country house, with beautiful gardens; houses for the workmen arranged like a model village; stables for horses and draught oxen that rival the "young elephants" of the London brewers; and edifices for the care of the wine on a magnificent scale. We saw them drawing the wine out of the *cuves*, where it had been fermenting for a fortnight, into the *barriques*—an operation conducted with military precision and exemplary care not to lose a drop. We learned that the produce of the vineyards of the Château Margaux this year equalled 1000 *barriques* of the best wine, equal to 46,000 gallons. The gross price of this seems enormous, but on the other hand there is the time it takes to mature, the enormous expenses attending the culture of the vineyards, which were as nice as a flower-garden, and the storage of the wine; and our sage conductor intimated to us that it was all very well to speak of the great growths, and their enormous value, but that greater profit to the grower and to the merchant, and greater pleasure to the consumer, were derived from wines under £15 the *barrique* than from all the grand and costly growths. It is better, as Mr. Gladstone says, to rely on the multitude of middle-class purchasers, rather than on the few millionaires. The produce of wine of every class this year has been enormous.

I have not the presumption to say more than that my observations confirmed the opinion I had previously formed of the care and cleanliness used in making the wines of the Médoc, their abundance and wholesomeness. What is said of Margaux is true of the whole Médoc. They seem like a man endued by nature with a sound, well-balanced constitution—neither too sweet nor too sour, long-lived, hardy, self-made, independent of manipulation, and not liable to the diseases which afflict many other wines.

One day was spent at Arcachon, which may be briefly described as the Bournemouth of South-Western France. Imagine Poole Heath enlarged a hundredfold, with the same scrub and heather and *Ulex Europæus* (only you must enliven the landscape with a few shepherds on stilts); imagine also a town situated on the edge, not of the open sea, but of a huge inland bay or basin, for all the world like Poole Harbour, and you have the scene before you. Arcachon, like Bournemouth, boasts of three elements—a mild marine atmosphere during winter, absence of bleak cold winds, and the shelter of pine woods, which are tapped for their turpentine, and yield a balsamic odour; to say nothing of that marvellous susurration or whispering sound of the foliage aloft, which is so suggestive of calm sleep. Altogether it seems a nice place for the hybernation of invalids who don't require the more heroic remedy of a sojourn in Africa or India.

Who is there, whose duty it has been to recommend a warm winter climate, who has not been met with the agonisingly anxious question, What will it cost? So I thought it might be useful to jot down a few memoranda of the cost of living at Arcachon. At the Grand Hotel, which seems a very well-kept establishment, a single gentleman can live for twelve francs a day in a sunny apartment on the first floor, for ten francs on the second floor; this sum includes board and lodging, except wine, and except fire and candles in the private room. There are public rooms, reading-, billiard-, smoking-, and drawing-rooms in which the invalid may amuse himself, and which are said to be sufficiently warmed in winter. To show that Arcachon is within the limits of the civilised world it is enough to add that we saw there at 1 o'clock p.m. the *Times* and *Daily News* of the day before. It is an hour and a half from Bordeaux, and consequently twenty-four hours only from London.

Boarding-houses are about two francs a day cheaper than hotels. There are abundance of villas, which, like the Hotel, belong to a limited company, which has found out and improved the place and fitted it for the sojourn of invalids. They seem remarkably well arranged and comfortably furnished; and, as an average, I may take one with four principal and two servants' bedrooms, the rent of which is 300 francs, or £12, for one month, 750 francs, or £30, for three months, and 1250 francs, or £50, for six months during the winter season, which lasts from October 1 to June 30. Servants, plate, and linen may be hired from the company on reasonable terms.

The oyster-beds which have been planted in the Bay of Arcachon seem to be eminently successful, and to yield abundance of two-year-old oysters, attenuated, and very unlike the plump "natives," but well flavoured.

Now for a few jottings from Cognac, a thriving town in an out-of-the-way-of-tourists district, twenty-five miles west of Angoulême. To its exemption from the plague of tourists may be ascribed the fact that one finds an old-fashioned French inn, with its homely and cheery hospitality. Why did I go to Cognac? It occurred to me that there is no one substance in diet or Pharmacopœia so frequently prescribed as brandy. Our books describe minutely the method of preparing aloes and scammony; there is no reason why the parentage of so important a thing as brandy should not be studied in its birthplace. Opportunities were kindly given me of witnessing every stage of its preparation on every scale. The country swarms with vines, which grow like weeds, and without the nice culture of the Médoc. The peasant proprietors make immense quantities of a thinnish white wine, the fermentation of which was just finished at the time of my visit. This wine is distilled, either by the peasants themselves or at the distillery of some petty capitalist who buys up his neighbours' wine. We visited the establishment of a petty proprietor a few miles out of Cognac. The stills that we saw were in full operation, not, however, in distilling wine, but water—for all the water which is used in reducing brandy to its commercial strength is carefully distilled. I pointed to the leaden worm, and hinted that distilled water attacked lead; the honest fellow in a blue blouse who showed us over the place knew this as well as I did, and showed me that the worm was tinned inside.

In distilling the wine they get one *barrique* of spirit from eight of wine—a spirit 65° or so over proof. This is sold to the merchants and shippers of Cognac, who keep it in huge casks for a considerable time. It is finally prepared for market by dilution and mixture of various qualities and flavours. A liquid is prepared, called *faible*, which consists of distilled water and a little brandy. This for pale brandy is coloured with a *very* small quantity of caramel or burnt sugar. The "old brown brandy," which delights old-fashioned people, simply contains more caramel, which the Cognac people say injures its flavour. The *faible* is besides mixed with a small quantity of syrup made of the best sugar candy, and the brandy, when finished, receives enough of this mixture of distilled water, caramel, and syrup, all filtered and well mixed, to give it the desired strength and colour and softness. This constitutes the process of manufacture such as we saw it in the neat and compact establishment of one hospitable friend, as well as in that of one of the great shippers, where everything is on a vast and princely scale.

I came to Cognac, as I have said, thirsting for information as to the qualities which distinguish good brandy, and on the chemical nature of the essential oils and their effects on the health. But I could learn nothing. The story my guides told me was simple and consistent. "Good brandy," they said, "consists of the finest and most spirituous part of good wine. It differs from mere spirit inasmuch as it contains a flavour which becomes developed and improved by age. Of this the taste is the only judge. We suppose old brandy is wholesomer than new, because it is nicer, and *le bon Dieu* has made all wholesome things nice."

I had samples given me of the newest brandy made from this year's wine, and of various degrees of age. When new

it is colourless, but it acquires a pale fawn tint from the cask, and the flavour becomes softer, fuller, more subtle and diffused over the palate. The bright yellow colour of the commercial brandy is quite artificial, and intended to please the eye.

In prescribing good Cognac the physician expects, in the first place, that what he prescribes shall be free from the deleterious oils which infest some other alcohols when new (such as are described in the evidence of witnesses before the Adulteration Committee); and that the aid of the subtle and pleasant perfume of good Cognac shall enable a smaller quantity of alcohol to suffice to produce a given effect. Altogether my impressions as to the wholesomeness and excellence of Cognac brandy were agreeably confirmed by my observations on the spot.

Let me add, as a matter of information, that "fine Champagne brandy" is that which comes from grapes grown in a district called "Champagne," on the left bank of the Charente. It has nothing to do with Champagne wine, although, as before stated, a very pure and fine spirit is distilled from it, in order to send to Saumur, Champagne, the Rhine and Moselle, to make the *liqueur* added to these sparkling wines.

## VACCINATION.

The Local Government Board, in pursuance of the Act of last session, have just issued a General Order containing revised regulations relating to the appointment and duties of the officers appointed to enforce the provisions of the Vaccination Acts, and to the proceedings for penalties under those Acts. The regulations are in most respects essentially the same as those hitherto in force, and the vaccination officers will hold their appointments as regards tenure of office and remuneration upon the same terms as at present. But a new and very important provision has been introduced in reference to the proceedings which may be taken by the vaccination officer under Section 31 of the Vaccination Act, 1867. Under that section an order for the vaccination of a child under fourteen years of age may be made by a justice of the peace upon the application of the vaccination officer; and it has been decided in the courts of law that the order may be renewed as often as may be necessary until the vaccination of the child has been secured. It was competent to the guardians, by a general resolution, to authorise the vaccination officer in cases of default to take legal proceedings without further instructions; and, therefore, when this course was adopted, the officer could, on his own responsibility, and without any special directions from the guardians, apply as many times to the magistrates as he thought proper, to compel a parent to have his child vaccinated. The Local Government Board have now restricted the vaccination officer's power in this matter, by introducing a regulation to the effect that the directions given to him by the guardians shall not empower him to take any further proceedings in any case in which an order has been obtained and summary proceedings have been taken under the section referred to, until he shall have brought the circumstances of the case under the notice of the guardians, and received their special directions in the matter. Another regulation requires the vaccination officer to take such proceedings as may be necessary under the Vaccination Acts in any case in which the Local Government Board may direct him to do so. We presume that this rule has been framed with the view of enabling the Board to take action when the guardians, either through supineness or active opposition, neglect to enforce a strict compliance with the Vaccination Acts. It is to be hoped that this clause will not be allowed to become a dead letter.

The Order also provides that the guardians shall pay all reasonable costs and expenses incurred by vaccination officers in proceedings taken by them for enforcing the provisions of the Acts; and that the officers shall pay to the treasurer, to the credit of the guardians, all sums recovered or received in respect of costs or expenses, or of any penalty under the Acts.

The following is the circular letter which the Local Government Board have addressed to boards of guardians on the subject of the new Order:—

"*Proceedings under Vaccination Acts.*

"Local Government Board, Whitehall,

"October 31, 1874.

"Sir,—I am directed by the Local Government Board to forward a copy of a General Order which they have issued in pursuance of the Act of last session, entitled 'The Vaccination Act, 1874,' under which the Board are empowered to make regulations prescribing the duties of guardians and their officers in relation to the institution and conduct of the proceedings to be taken for enforcing the provisions of the Vaccination Acts, and the payment of the costs and expenses relating thereto.

"The duties of the guardians in reference to proceedings, as defined by Article 16 of this Order, are to cause such proceedings to be taken against persons in default; and for this purpose the article requires them to give the vaccination officers directions, authorising them to institute and conduct such proceedings.

"The guardians may either give special directions in each individual case of default, or they may give such general directions as will enable the vaccination officers to take proceedings in the first instance in every case of default, without referring it to them; but the Board have thought it right to require, as regards proceedings under Section 31, that the vaccination officers shall not, in any case in which a magistrate's order has been made and summary proceedings have been taken thereon, apply for another order unless they have brought the case before the guardians and received their special directions concerning it.

"With respect to the different proceedings which may be taken under Section 29 and Section 31 of the Vaccination Act, 1867, the Board desire to recall the attention of the guardians to paragraph 8 of the Board's circular letter of October 17, 1871, copy of which is given below.

"I am, Sir, your obedient Servant,

"(Signed) John Lambert, Secretary.

"To the Clerk to the Guardians."

[*Copy paragraph above referred to.*]

"Under Sections 16 and 29 of the Act of 1867, the parent or other person is liable to a penalty, who shall neglect to have the child vaccinated within three months after its birth, or after receiving its custody, or in certain cases within the further period limited by Section 12 of the Act, and shall not render a reasonable excuse for such neglect. This offence is complete at the end of the three months or other period; and as, therefore, it can only be committed once, only one penalty can be inflicted on account of it. (*See* Pilcher *v.* Stafford, 33 L. J. n. s. M. C. 113; 9 L. T. n. s. 759.) Under Section 31 of the same Act, however, an order for the vaccination of a child under fourteen years of age may be made by a justice of the peace if he see fit, upon the application of the vaccination officer, and such order may be renewed or repeated again and again, as often as may be requisite, until the vaccination of the child is effected. (*See* Allen *v.* Worthy, 39 L. J. n. s. M. C. 36; 21 L. T. n. s. 665; L. R. 5 Q. B. 163.) It is important to bear in mind this distinction between the proceedings under Section 29 and those under Section 31."

## MULTIPLE NEUROMATA CURED BY DIVISION OF A NERVE TRUNK.

By PROFESSOR KOSINSKI, of Warsaw.

The following case occurs in the *Centralblatt für Chirurgie* for July 18:—

A. B., aged thirty years, attended the Professor's hospital practice on account of painful knotty tumours in the lower extremity, which he said were small and painless when he first noticed them, but afterwards, whilst he was performing long military marches, they increased in size and became painful.

On the upper and outer surfaces of the thigh, as low as its lower third and over part of the buttock, were scattered small, hard masses, round or oval in shape, and varying in size from a pin's head to a hazel-nut. They were apparently situated in the corium, and felt hard for the most part; but the larger ones were elastic, semi-transparent, and more clearly defined, and appeared more closely connected with the skin, which

round them was dry, rough, and desquamating. Pressure on the tumours, but especially the larger ones, caused intense pain, radiating in all directions. Scarcely any was felt when the limb was kept completely at rest.

To determine the nature of the tumours, which seemed to be of the connective tissue type, one of the most painful was removed with the patient's consent. Microscopic examination showed that it consisted of grey nerve fibres mixed with fibrous tissue, indicating the probable origin in the cutaneous extremities of a nerve, and from the position of the tumours the nerves affected were obviously the small sciatic and part of the external cutaneous.

The orthodox drugs—mercury, iodine, and preparations of sulphur—were completely powerless. There seemed no possibility of removing them by the knife or cautery, and so Professor Kosinski determined upon excising a piece of the nerve, as near as possible to its origin, with the view of rendering the tumours painless, but without any expectation of diminishing their size. By an oblique incision, almost in the direction of the gluteal fold, the small sciatic nerve was reached, and a portion of it, an inch long, was removed as far as possible under the edge of the gluteus maximus. The oblique incision was preferred to a perpendicular one, as it made the discovery of the nerve much more simple.

The immediate effect of the operation was the loss of sensibility in the tumours themselves, as well as in the whole region occupied by them. A few of them, however, on the anterior and outer parts of the thigh and in the sciatic region had their sensibility only partially destroyed. Whilst the wound was granulating they began to dwindle; and so rapidly did this take place that at the end of the few weeks that the patient remained under inspection the larger ones had been reduced by a half and the smaller ones had almost completely disappeared. In this state he left the hospital, and Professor Kosinski was informed by the physician under whose care he afterwards came that at the end of four months the process of disappearance was still going on, and that those which remained had become completely painless.

In concluding, he remarks that the case is interesting in many ways—first, the diagnosis could only be made with certainty by a microscopical examination; secondly, division of a nerve in this class of case is, he believes, hitherto undescribed; thirdly, the result of the operation exceeded all expectation. The rapid disappearance of the new growths is interesting in a physiological point of view as indicating the influence of the sensory nerves upon the nutrition of a part.

## THE INSANITARY CONDITION OF WORKHOUSE AND OTHER SCHOOLS.

It is now some years since the Poor-law Board decided that, so far as the metropolitan districts are concerned, the children of paupers should be educated and maintained in establishments quite distinct from adult institutions of the same character. Yet, notwithstanding the outward appearance of order, discipline, and cleanliness under the new arrangement, there is still much to be done by way of improving the sanitary condition of these pauper schools. The revelations connected with the uncontrolled spread of ophthalmia at the Anerley Schools and elsewhere, the prevalence of porrigo and parasitical affections of the skin, and the outbreak of fever of an enteric type, such as that at Wandsworth, prove incontestably that a shameful neglect of proper sanitary precautions exists in these schools, and that in too many the diet and regimen are so deficient that the bodies as well as the intellects become stunted and depraved. Doubtless, as Mrs. Senior has pointed out in her report upon the condition of girls in pauper schools, the children who are admitted are much below the average standard of physical, mental, and moral culture; but this is only an argument in favour of more than ordinary care in their education and maintenance. The inmates of these schools consist first of permanent boarders, chiefly orphans, and of casuals, who remain for shorter or longer periods, till their parents are in a position to remove them. These two classes of children should, no doubt, be treated separately; but this is very far from being the rule, and thus the chances of conveying infection from without are very great. Mrs. Senior advocates most strongly the "mothering" of these little outcasts on what is called the boarding-out system, and we shall now consider the *pros* and *cons* of this arrangement. And, first, with regard to the alleged impropriety of boarding out children. It is asserted that pauperism and crime are encouraged rather than mitigated by eleemosynary help. This, the morality side of the argument, we must leave others to discuss, except so far as to deny most emphatically that there is any ground for supposing that the unfortunate classes, be they prostitutes or paupers, would be more likely to abandon their children under the boarding-out system than in the workhouse schools. We can but suppose that Lord Lyttelton and others who are opposed to the boarding-out system know but little of the misery and destitution abounding in our poorer districts from causes quite beyond the parents' control. How many a well-to-do family has been suddenly brought down to the verge of starvation by the father being stricken with blindness, paralysis, consumption, etc.! And why should the innocent children be carried off to a workhouse school when the same expense would restore to them home comforts? When poverty, starvation, and disease are admitted facts, and too often linked together, we are bound to attack them with the weapons which have proved most efficacious; and these are isolation from infecting sources. Mrs. Senior found that "round shoulders, narrow chests, and frames of stunted growth met the eye more frequently than could be accounted for by the pauper origin and habits of the children." Shorn heads and weak eyes (speaking of recent ophthalmia and ringworm) were very prevalent in the workhouse schools.

Numerous attempts have been made to eradicate these diseases by direct curative means; but little, if any, has been made to obviate the prime cause of them—viz., the insanitary condition of the schools, the badly ventilated rooms, the deficient diet both with regard to quantity and variety, the imperfect isolation of the infected, etc. Mr. Liebreich has drawn attention to the prevalence of short sight and astigmatism in our public schools, and also of deformities in the spine, etc., caused by the disproportion between the parts of a school-desk and the size of the children using it, no attempt being made to vary the height with the age or stature of the child; also the want of care in fixing the desks so that the light should fall from the left side. Lord Monteagle drew attention to this subject in the House of Lords during the past session, and we are glad to find that the School Board have ordered a large number of desks constructed after Mr. Liebreich's model for the Board schools, by which some support is given to the back, and the height of the desk is proportioned to the stature of the children.

Mrs. Senior, when visiting "boarded out" children, did not see a single case of ringworm or ophthalmia, and the children, almost without exception, looked strong, and thriving, and happy.

## FROM ABROAD.

### Reorganisation of the Académie de Médecine.

It has occurred to many of the members of this important body that its organisation may undergo considerable change with advantage in the direction of a diminution of the number of its members and of the sections into which these are distributed. These sections are at present eleven in number, and from each of these a member was selected on June 2 in order to form a committee, having for its object to consider and report upon this projected change. The committee thus formed is composed of the following well-known members, viz.:—Messrs. Claude Bernard, Trélat, Jolly, Broca, Béhier, Depaul, Delpech, Bouley, Bussy, Poggiale, and Chauffard (reporter). At the meeting of the Academy on the 3rd inst., Professor Chauffard read his report, which occupies thirty pages of the weekly *Bulletin*, and is universally allowed to be a model lucid statement, recommending most important changes, concerning some of which opinion is of course less unanimously favourable.

When the Academy was first founded by royal charter in 1820 it consisted of 280 resident members, and was then, as M. Chauffard observes, rather a great professional association than a body fitted to aid in the progress of medical science.

In 1829 its numbers were reduced to 100—viz., 60 full or titular members and 40 who were only *adjoints*. This inequality was removed in 1835 by raising the *adjoints* to the position of full members. Since that period the Academy has consisted of 100 resident members and 10 *associés libres*, besides several corresponding and foreign members. The 100 resident members are distributed into sections in the following manner: —Anatomy and Physiology, 10; Medical Pathology, 13; Surgical Pathology, 10; Therapeutics and Medical Natural History, 10; Operative Medicine, 7; Pathological Anatomy, 7; Accouchements, 7; Public Hygiene, Legal Medicine, and Medical Police, 10; Veterinary Medicine, 6; Medical Physics and Chemistry, 10; Pharmacy, 10.

The projected reforms of the Academy comprise two principal points—a diminution of the number with a reorganisation of the sections, and a reduction of the total number of the members of the Academy. With respect to the first point, the Committee was unanimous in regarding the division into eleven sections as a faulty one, separating as it does subjects which should be united, and leading to mischievous subdivisions that imposed too great limitations of the sections, and rendered the supply of eligible candidates more difficult. The Committee recommends that the number of sections be reduced to five—viz., (1) Medicine, comprising Medical Pathology, Pathological Anatomy, and Therapeutics; (2) Surgery, comprising Surgical Pathology, Operative Medicine, and Obstetrics; (3) Biological Sciences, comprising Anatomy, Physiology, Comparative Medicine, and Veterinary Medicine; (4) Physical and Natural Sciences, comprising Natural History, Physics, Chemistry, and Pharmacy; (5) Public Medicine, comprising Hygiene, Legal Medicine, Statistics, and Medical Police and Legislation. Each of these sections, the reporter observes, forms a natural group, and not only do they possess the advantage of bringing together the elements of each group, but they widen considerably the limits of the group, and therefore facilitate the accession of candidates. The subdivisions, which correspond to the present sections, will not be so restrictive and exclusive as these are, and will allow of the future inclusion of other branches of medical and natural science. Thus, Medical Philosophy and History may hereafter find their place in the first section, while the obvious locality for Anthropology will be in the third, and Medical Geography will side with Statistics in the fifth. The field of choice of each section will in future be much extended, each section, instead of being limited within a narrow range as at present, having the power to distribute its recommendations of candidates for academical election as it pleases among the subdivisions which constitute it. Of course considerable difference of opinion prevails concerning this classification of subdivisions of sections, and the position acquired by Veterinary Medicine has been especially criticised; but for the reasons which have led to the proposed arrrangement we must refer to the report itself.

With regard to the second point referred to it, the Committee proposes that the number of resident academicians shall be reduced from 100 to 60, one election taking place for every two vacancies until such reduction is accomplished. The principal reasons for this reduction are thus summed up by M. Chauffard:—

"Academies only attain their aim and fulfil their mission when they constitute themselves a jealous *élite*, few in numbers, well aware of their own value and of the honour done to those whom they admit. The entrance into an academy should be obtainable by a struggle, and a struggle by means of work—the expected triumph acting as a stimulant to daily labours, and crowning a career whose motive has not been fortune but honour. An academy whose portals we are certain of crossing as soon as we have acquired an honourable professional position, aided by some work destined to justify the candidature, without science having become also the rule and supreme occupation of our entire life, is not an academy which will attain all the authority which it ought to possess. It will not inspire these fertile scientific ambitions that it is its mission to arouse, and will languish away like a great body devoid of the stimuli—warm blood, noble ardours, and strong passions."

These somewhat high-flown ideas have found but little favour with many of the critics, who look upon the present movement as an attempt to eliminate the professional and practical element of the Academy in favour of the professorial or teaching and more scientific elements, which already exert so predominating an influence. The same attempt has been lately made at the Académie des Sciences, where it was sought to introduce physiology into the medical section at the expense of medicine and surgery. Great surgeons and physicians were no longer to obtain seats as such. Of course in an academy of medicine such an exclusion would be far more preposterous than in an academy of sciences, the line of demarcation between the science and art of medicine not being always easy to trace. They are, in fact, as Dr. de Rause—one of the ablest of the critics of the measure—observes (*Gaz. Méd.*, November 7), in a circle so limited as that formed by men of the same profession, inseparable, incessantly completing and controlling each other. Again, he observes, it is quite an illusion to suppose that sixty medical men of this superior merit, exclusively devoted to the cultivation of science, can be found; and as present arrangements exist in France, as with ourselves, if a man has to live he will generally have to practise the art as well as to pursue the science of his profession. So that, although the number of members of the Academy may be reduced as proposed, good clinical observers will be found among them in at least as large a proportion as pure *savants*. The measure, in fact, is far too sweeping, the real want of the Academy being rather an alteration in the relative numbers of members of the various sections than in its totality; and this is just the point which the Committee has not ventured to touch upon, having left the relative proportions of the sections very much as it found them.

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The Advantages of Wooden Hospitals as Disinfectants.—Dr. Day, in a paper read at the Medical Society of Victoria (*Australian Medical Journal*, August), after stating that pyæmia, erysipelas, and puerperal fever are of infinitely less frequent occurrence in hospitals constructed of wood, says that, looking to chemistry for an explanation, he finds that certain kinds of wood, such as red or yellow deal, American pine, and white deal or spruce, possess the power of acting on atmospheric oxygen and converting it into peroxide of nitrogen —a substance possessed of remarkable deodorising power. He believes also that it is a disinfectant in the true sense of the word—viz., that it is capable of oxidising and destroying zymotic poisons. He has come to this last conclusion from the great success that has attended his plan of treating scarlet fever, by which he has found the spread of the disease effectually prevented. He has the patients freely rubbed over the whole surface of the body with ethereal solution of peroxide of oxygen (erroneously called ozonic ether) mixed with lard in the proportion of one part to eight. This procedure is repeated three times a day, and continued for two or three weeks. The advantages of the plan are, that it enables the patient during the whole period to breathe a pure atmosphere instead of one contaminated by the emanations from the skin; and it provides an effectual means of arresting the spread of the disease. Inunctions with greasy substances have often been so used, and any benefit which has been derived from them has been probably due to the peroxide which they contain; but as the quantity of this found in different fats and oils is very variable, it is better to employ a mixture of a given strength.

In proof that the different kinds of wood mentioned above generate peroxide of hydrogen, Dr. Day applied to various specimens the most reliable tests for the peroxide—viz., the colouring matter of the blood and tincture of guaiacum. Peroxide of hydrogen alone, although a powerful oxidising agent, is incapable of oxidising and turning blue the resin of guaiacum; but in the presence of blood it acquires increased activity, and does so readily. When a little watery solution of blood was applied to the specimens, and then some tincture of guaiacum poured over them, wherever the blood penetrated the parts turned blue through the agency of the peroxide contained in the wood. The red or yellow deal, and especially that from the Baltic, furnished the most powerful reaction, and consequently it generates and condenses the largest amount of peroxide. There can scarcely be any doubt that this property of generating peroxide is due chiefly to the turpentine these woods contain. Baltic deal is also a very durable wood, and, placed on a stone foundation, would seem to be preferable to any other material for the construction of hospitals. Soap should never be used for washing the floors of hospitals, as its alkali would destroy the peroxide. The floors should be waxed and polished, which is usually done by first staining the floor with burnt umber rubbed down with linseed oil, and then covering it with a thick paste made of yellow wax and turpentine, which should be well rubbed in, and afterwards

polished. As two of these ingredients—linsced oil and turpentine—possess the power of continuously generating peroxide of nitrogen, a floor thus prepared is rendered permanently disinfectant. In hospitals for contagious diseases, also, the bedding may be stuffed with the shavings of Baltic deal or American pine, frequently changed. These shavings generate the peroxide very freely, and continue to do so for a long time. Sawdust also is a real disinfectant; and a very agreeable deodorant and disinfectant may be made by mixing about an ounce of the eucalyptus oil from the *Amygdalina odorata* species, with a bushel or more of clean red or yellow deal sawdust. It improves with keeping.

"In conclusion, I would claim for wooden hospitals the following advantages:—1. That instead of requiring constant purifying and disinfecting as other hospitals do, they purify and disinfect themselves. 2. That peroxide of hydrogen, the disinfecting agent they generate, contains oxygen—Nature's disinfectant—in a highly condensed and active form, which, moreover, is intensified in the presence of either pus or blood—a property rendering it pre-eminently adapted for hospital disinfection; for it is beyond doubt that pus-cells, in combination with other organic matter, are largely concerned in the causation of those septic diseases which are so destructive to life in ordinary hospitals. 3. In consequence of the above-named conditions, the inmates of wooden hospitals enjoy almost, if not perfect, immunity from hospital gangrene, erysipelas, and puerperal fever."

## REVIEWS.

*On Hospitalism and the Causes of Death after Operations and Surgical Injuries.* By J. Eric Erichsen. London: Longmans, Green, and Co. 1874. Pp. 107.

This small volume, containing four lectures delivered at University College Hospital last winter, does not bring forward many facts or views which could possibly be unknown to experienced hospital surgeons. Yet we scarcely know any book which more clearly elucidates every important point demanding consideration, both theoretically and practically, about the accidental diseases after operations, and the part played by hospitals in their etiology.

We believe that we do not misunderstand the author when we suppose that under the term "hospitalism" he does not include the whole of the etiology of the accidental diseases after operations and surgical injuries, but we should be grateful to him that he has again pointed out the perils of overcrowded hospitals to these surgical inmates. We learn from him the fact that these perils have not yet diminished, although experience and science have increased. No person of any experience in hospital practice will question the perfect accuracy of the statements made by Mr. Erichsen, and everyone will perfectly agree with him about the way in which these evils are to be prevented.

*Address in Medicine, delivered at the Meeting of the British Medical Association in Norwich*, 1874. By J. Russell Reynolds, M.D., F.R.S. London: J. and A. Churchill.

We are glad to find that Dr. Russell Reynolds has republished, in a form which will make it more available than in the pages of a weekly journal, the thoughtful and suggestive Address in Medicine which he delivered in Norwich last August. The address appeared in our columns at the time of its delivery; and we took occasion then to review its principal points. In revising it the author has made some additions which seem to him to give strength to the argument contained in it.

*The Physicians and Surgeons' Visiting List, Diary, Almanack, and Book of Engagements for* 1875. J. Smith and Co., Long-acre.

We are reminded of the rapid passing of the present year by the arrival of this tried and welcome friend and assistant As it has attained its twenty-ninth year, with ever-increasing popularity, we need not say a word more than that it is published.

House of Industry Hospitals, Dublin.—At the inauguration of the session of 1874-75, and after the delivery of the opening address by Dr. W. Thomson, Surgeon to the Richmond Hospital, the Clinical Prize in Medicine was presented to Mr. Effingham MacDowel, son of Prof. B. G. MacDowel, Physician to the Whitworth Hospital.

## PROVINCIAL CORRESPONDENCE.

### IRELAND.

Dublin, November 3.

The Introductories (*continued*).—St. Vincent's Hospital; Catholic University School of Medicine; Mater Misericordiæ Hospital; Richmond (Surgical) Hospital.

At St. Vincent's Hospital, Stephen's-green, the inaugural address for the session 1874-75 was delivered on Friday, October 30, by Mr. W. H. O'Leary, M.P. for Drogheda, and Surgeon to the Hospital. He chose for consideration the Public Health Act of 1874. "This Act" he said, "was called into existence by the necessity of preserving her Majesty's subjects from untimely death; and the Legislature wisely determined that in order to stop the annual sacrifice of life it was necessary to place, as the guardians of those subjects' lives, men who should best know how to preserve them. This is Imperial policy, and it is a wise one. It is time that the power should be placed in the hands of men who are so familiar with the grim antics of him who has, alas! up to this time so victoriously challenged opposition. It is, however, but just that such opponents—who daily meet in the sick-chamber in anxious conflict for the prize—should be brought face to face in the full glare of day, and renew the conflict on something like equal terms. For, up to the present, Death not alone fights, and claims his victims upon natural laws, but as eagerly swells his host by neglect. Give the doctor the power to restore from laws unnatural to natural laws, and then Death and his quota will be but 'Nature's payment just.' Can the medical man by his own knowledge reduce the unequal to the honourable standard of an equal foe? My answer is—that is his mission; and for the fight he is prepared, if armed, to meet the 'dread avenger.' But for this he must be paid; and I tell you, gentlemen and brother-labourers in the field, to do your duty, even under truly adverse circumstances, for the Legislature which framed this Act cannot be set at defiance by the corner working of any sanitary authority as constituted; and will, ere long, mete out justice where justice is now denied. Gentlemen, have patience; but, I should add, have also a determination to realise the good offices that are thrust upon you, and the good you can effect, and the time and anxiety it will cost you. And then again determine that your justice-denying masters will ere long receive as of course from the Local Government Board a similar order to that issued to such similar authorities in England—to pay a reasonable sum for services rendered—if they expect such services to be efficiently performed, for the prevention of disease, and of the consequent immoderate mortality which now exists. If Parliament has compelled you to perform such duties, it recognises their importance and necessity; and it will equally recognise the importance and necessity of compelling the authorities, to whom you give your valuable time and scientific opinions, to recompense you." The sanitary precautions taken by the Jews and Romans were then noticed, and, having referred to the causes of a high death-rate in Dublin, Mr. O'Leary proceeded:—"The energies of Dr. Mapother, the Medical Officer of Health for Dublin, were powerless to a degree, while unaided by a staff of medical men, who alone had the knowledge to detect the subtle cause of disease and death. How many Acts of Parliament, each passed for the public good, have been in Dublin a dead letter!—for example, the Workshops Act, the Factories Act, the Lodging-house Act, and the Building Act. I look upon the non-application of the latter Act to Dublin as the greatest calamity of all. Within the last five years, to my own personal knowledge, there has been allowed to rear its head a foe which 'will yet make countless thousands mourn.' Hundreds of dwellings for the artisan classes have been lately built, and I will only charitably hope that those who built them were thoroughly unconscious of the terrible mines which, through their instrumentality, have been laid, and which yet will be sprung with a vengeance. Some of those buildings have as their foundations the sweepings of the streets, containing, as you are all aware, every conceivable form of organic matter; others built on a field, over the surface of which an immense and well-freighted sewer emptied its disgusting filth for fifty years." Mr. O'Leary next alluded to the duties of a medical officer under the Sanitary Act, and contrasted the number and the importance of these duties with the miserable recompense given for them. He made some startling revela-

tions relative to the miserable pay received by medical officers in remote country districts, and instanced in particular the case of a doctor in Clare, who had only six shillings per day as a medical officer of a dispensary, and had out of that munificent sum to support a wife and six children. The lecturer, when he paid a visit to the doctor above alluded to, found him cleaning and feeding the poor horse which was after carrying him a journey of thirty miles. With reference to the question of remuneration being influenced by the proceeds of private practice, Mr. O'Leary justly said, "The simple question is—and I have endeavoured to confine it within its own limits—Is the medical man fairly remunerated for his public duties? Assuredly not; and the gentleman who, in his public capacity, dares to speak of private income is an intruder, and as impertinent an intruder as he would be thought did he attempt such a question about the very latest, but, withal, deserved appointment of a well-known barrister to a county chairmanship." The address concluded with an eulogy of the medical men of Limerick, who had in a body refused the paltry sums offered to them as remuneration under the new Act, while at the same time they expressed their determination to perform their public health duties.

The winter session of the Catholic University School of Medicine commenced on Tuesday, November 3, with an address from Dr. Hayden, Dean of the Faculty. The first portion of the lecture was devoted to a consideration of the materialistic theory and its shortcomings. "Life," Dr. Hayden proceeded to say, "is an ultimate fact, the forms, operations, and variations of which may be studied with profit and pleasure, but the essence it is given to no man to comprehend. It is the special and enviable privilege of a student of medicine of our time, armed with the modern appliances for research, to enter into and garner in this wide field of knowledge, where his labour, directed in a becoming spirit of humility, shall be rewarded, not only by the pleasure of a more familiar intercourse with the great Architect through his works, but by the satisfaction of feeling that in repairing the injury which time and friction, or, it may be, indiscretion and excess, have wrought in the greatest of those works—that, namely, which bears the stamp of His own Personality, Man,—he is acting as His subordinate, and engaged in a work little short of divine. *Homines enim ad Deos nulla re proprius accedunt, quam salutem hominibus dando.*" He then spoke of disease, and particularly of zymotic disease; and, in connexion with this, of preventable disease, and of the Public Health Act, pointing out that "henceforward, under this Act, it will be the duty of dispensary medical officers not only to identify disease, but to avert it; not only to combat it in its maturity, but to starve it in its growth; to take charge of the healthy as well as of the sick; to preserve health quite as much as to restore it. It will be their duty to determine the conditions of life, especially those having reference to air, food, water, and sewage, which are unfavourable to health, and the special consequences which result from their operation. It is manifest that the departments of curative and preventive medicine are inseparable, and that a complete medical education is necessary to qualify for practice in either. Hence medical men only should be eligible to the office of inspector or superintendent of public health. To prepare them for this new sphere of duty it will be necessary that their professional education shall be in some degree specialised, and special instruction in hygiene or State medicine must henceforward be given in the medical schools, with a view rather to concentrating upon a particular object the information hitherto given in the lectures on chemistry and physiology than with that of introducing new matter into them. Gentlemen, it is some consolation to know that, in being charged with these new and onerous functions, your importance to society will be proportionately enhanced. You are, however, under the obligation of preparing yourselves for the efficient discharge of these duties by earnest and assiduous study. Be assured, if you take this course, you will be protected by the law, and sustained by the sympathy of those who possess the power to aid you—the thoughtful and enlightened portion of the community." The concluding portion of the lecture was devoted to the subject of the education of the students as future practitioners of curative medicine. As noted in your impression of November 7, it is much to be regretted that the discontent at present prevailing amongst the students of the Catholic University should have interfered with the harmony generally observed at an opening meeting.

The inaugural lecture at the Mater Misericordiæ Hospital was delivered on Tuesday, November 3, by Dr. John Hughes, Physician to the Hospital. The lecturer having fully described the arrangements of that magnificent institution, chose as the more immediate subject of his discourse "Medical Education in all its aspects." He concluded an able address with these words:—"You must not look for success from adventitious means. You must depend upon your acquirements; and this is your time for action. It is your interest, as it is assuredly your duty, to apply yourselves diligently to the study of your profession from henceforth, for—

> "'There is a tide in the affairs of men,
> Which, taken at the flood, leads on to fortune;
> Omitted, all the voyage of their life
> Is bound in shallows and in miseries.
> On such a full sea are we now afloat—
> And we must take the current when it serves,
> Or lose our ventures.'"

The session at the House of Industry Hospitals was commenced on Thursday, November 5. Dr. William Thomson gave the introductory address in the theatre of the Richmond (Surgical) Hospital. He lectured on the education of the medical student, and argued manfully in favour of a liberal and sound preliminary education. Under certain conditions he believed in the advantages of the "single portal" of admission to the profession. But had not the General Medical Council commenced at the wrong end? Were they not falling into the error of demanding a uniformity of result, without trying to secure any uniformity of preparation? Another mistake lying at the root of the question was the early age at which the student might enter upon his work. He should be at least required to undergo an examination equivalent to what was known as the "little-go" as the test of his educational status; and besides subjects obviously necessary, there should be a fair knowledge of a foreign modern language and of the literature of his own, with the elements of logic and some of the higher mathematics and experimental science. It was a positive injury to the student to receive him on the terms prescribed by the General Medical Council. He was deprived of the pleasures which were to be found in an acquaintance with general literature and philosophy. His mind had never undergone any of the strengthening discipline resulting from a practice of the simplest rules of logic; and before he had learned anything of the laws of thought, or been able to arrive at any mental length or breadth, he was plunged into the midst of professional study. With great respect, he did not believe in the wisdom which made such a thing possible. The requirements for admission should be, if anything, superior to those demanded for law or divinity; and the preparation which he indicated would not only prevent the mind of the student from running in a narrow professional groove, but would furnish a safeguard against objectionable recreation.

## LIVERPOOL.

November 9.

THE MUSICAL FESTIVAL AND THE MEDICAL CHARITIES—SANITATION IN THE LANCASHIRE CANAL-BOATS—DR. NEVINS ON THE CONTAGIOUS DISEASES ACTS—SCARLET FEVER.

THE result of the recent musical festival held in this town has been the distribution of £1000 to the principal charities. Of the medical charities, the three large hospitals received £200 each for their respective convalescent funds, and the Children's Infirmary £100. The surplus of receipts over expenditure amounted to £948 7s. 2d., of which it was at first proposed to distribute £810 10s.; but Sir Julius Benedict, who had conducted the concerts, urged that the fund for the charities should be increased to £1000, and gave a donation of £10 towards that object. His example was infectious, and the extra £200 was raised immediately.

Some short time ago I drew attention to the reported bad state of the canal-boats plying in different parts of Lancashire. At a recent meeting of the Nantwich Rural Sanitary Authority, a letter was read by the clerk from the Government, desiring suggestions as to any further powers which it might be desirable for them to possess, in order to effectually deal with the evil of overcrowding on canal-boats. The Board relegated the duty of drawing up such suggestions to Mr. J. A. Davenport, the sanitary inspector (who was the first to call public attention to the lamentable state of affairs), and their clerk, Mr. J. Pick. At a subsequent full board these were presented, and unanimously approved. They are as follows:—

"1. That no woman, or girl or boy under fourteen, should be employed on, or allowed to sleep in, canal-boats.

"2. That the cabins should be provided with proper means of ventilation.

"3. That for every person using the cabin as a sleeping apartment a minimum of 200 cubic feet of air-space be allowed.

"4. That powers should be given to officers of the sanitary authority to search a boat at any time for infectious disease, and, if this be found, to detain the boat until a justice grants an order, on the certificate of a medical man, for the removal of the case to a hospital provided by the sanitary authority, where such a hospital exists.

"5. That similar powers should be given to search and detain a boat carrying the corpse of anyone dead from infectious disease, and for the removal of the body.

"6. That boats should have legibly marked upon them what crew they are designed to carry, having regard to regulation 3.

"7. That it should be the duty of all sanitary authorities to cause the inspection periodically of all canal-boats plying through their districts, and that they should have power to summon the owners and captains of boats infringing any of the foregoing regulations, and that on conviction a fine should be imposed."

The eighth regulation has reference to the payment of expenses, and the report concludes as follows:—"At first sight it may appear a somewhat harsh step to prohibit boatmen from taking their wives and families with them in the boats, as they have always been accustomed to do; but, looking at the fact that seamen are away from their homes for months together, the Sanitary Authority cannot believe that the hardship of preventing the females and younger children of the boatman's family accompanying him on his journey would be so great as to outweigh the very apparent advantages that would be obtained from such a step in every point of view."

A very large meeting of medical men was held in the theatre of the Medical Institution on Thursday, the 5th inst., to hear a paper by J. Birkbeck Nevins, M.D., bearing the following title:—"On the Sanitary Results of the Contagious Diseases Acts upon the Army and Navy, and Prostitutes registered under them, from the date of the first Act to the latest published official health-return: being the substance of a report prepared for the Home Secretary, the Right Hon. R. A. Cross, with special reference to their proposed introduction into Liverpool." The paper manifested most laborious and careful examination, and was illustrated by tables and diagrams that had been specially prepared for its elucidation, and which, unlike many similar productions, answered the end for which they were designed. The general results arrived at by the author may be thus summed up. For several years before the first Act was passed great improvement had been taking place in the health of the army, so far as venereal diseases were concerned. Immediately upon the introduction of the Acts there was a temporary rapid increase in these diseases. This increase generally ceased within twelve months for syphilis, but in gonorrhœa there has been a permanent increase throughout both army and navy, which continues to the present time. The improvement in health, so far as syphilis is concerned, still continues upon the whole, but at a much diminished rate compared with what took place before the Acts were in operation. In the British navy throughout the world the health of the sailors occupies a more unfavourable position in venereal diseases on the home and Mediterranean stations than on those stations which are not under laws similar to the Contagious Diseases Acts. The ratio of disease amongst the registered prostitutes has increased above 20 per cent. since the Act of 1866, and the ratio of deaths among them has more than doubled since that date. The fluctuations of these diseases are so great from year to year, both before and since the introduction of the Acts, that no opinion of any value can be formed from a short period or a limited number of men. The results arrived at in the paper are derived from the official health-returns of a large number of men and for a considerable time—viz., the whole British army at home, and the navy throughout the world for a period of twelve years; the longest time that the official documents render possible.

The above is a brief summary of the conclusions arrived at, but it would be impossible to summarise the valuable information and figures on which these are based; and, whatever view one takes of the legislation that was under consideration in the paper, the paper itself (which has been published) is worthy of serious and candid study. There is no subject on which medical opinion is so much divided in this town as the Contagious Diseases Acts. This difference of opinion runs through all ranks of the profession, and is a curious comment on that unanimity which is by many outsiders assumed, but only assumed, to exist among medical men with regard to them.

Scarlet fever still prevails very extensively here. In the neighbouring district of West Derby, to which the disease extended from Liverpool, it seems to have been speedily subdued by the prompt measures taken by the sanitary authorities. In this district, in addition to the usual weekly return of deaths which is sent by the registrar to the health officer, the latter receives immediate notice of any death that has been registered as occurring from infectious disease, and thus can, without any loss of time, have disinfection carried out. The moment, also, that any application is made to a relieving officer for the removal of a patient suffering from infectious disease to the workhouse hospital, he is apprised of the circumstance. It is a pity that similar sources of early information are not open to every health officer in the kingdom.

## GENERAL CORRESPONDENCE.

### THE LATE PROFESSOR GRANT.

LETTER FROM DR. RUSSELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—The following letter from Dr. James Russell, of Birmingham, appears to me to be of much interest. May I request the favour of its insertion in the *Medical Times and Gazette?* I am, &c., J. F. CLARKE.

"Birmingham, Nov. 10.

"Dear Sir,—Having been very much behindhand in my periodical reading, I only saw to-day your notice of the late Dr. Grant in the *Medical Times and Gazette*.

"From the deep interest you take in forming a correct estimate of the foremost men in our profession—an interest which lays us all under such deep obligation to you on account of its fruits,—I venture to think that the following brief narrative of a visit paid by Dr. Grant to Birmingham some twenty-five years ago may be worth your reading. The incidents impressed me at the time as indicating the presence of that noble independence which enabled Dr. Grant, with very slender means (as I was informed), to devote himself to his favourite pursuits, and to visit the museums of Europe on foot (as I was told he did).

"It was in the time of our old Philosophical Institution, and Dr. Grant was engaged to deliver a course of six lectures 'On Comparative Anatomy.' As I lived near the Institution I arranged with the secretary (who was an intimate friend of mine) that we would take charge of Dr. Grant in turns, by providing for his comfort before the lecture, and preparing a supper for him afterwards. My friend (who, by the way, was the nephew of the late Mr. Hodgson) went to the Institution to attend on Dr. Grant. He found him in the lecture-theatre sitting on the front bench, enveloped in a camlet cloak—for it was winter,—eating from a paper of sandwiches and superintending the hanging of his diagrams. Hodgson expressed his hope that the Doctor would accompany him home to dinner or tea before business began; but the Doctor politely but absolutely declined. He had provided a meal, which he had brought with him, which was all he required, and he would take no more.

"After lecture he was persuaded, with great difficulty, to spend the two hours before his train left at my father's house, but the only thing he would touch was a small cup of cocoa, and this only because my father was taking the same supper.

"The same thing occurred on each of the six nights; he merely ate his sandwiches, gave his lecture, and left by the midnight train.

"I need not say how excellent his lectures were. At the close of the course the managers of the Institution felt that the fee of five guineas, which Dr. Grant had specified as his honorarium for each lecture, was quite inadequate as even a business remuneration, especially as a double railway fare had to be subtracted from each five guineas; for at that time a return ticket was not available beyond midnight. Accordingly they added, from their own pockets, the total railway fares, expressing at the same time, through my father, who was treasurer, their obligation to Dr. Grant for the gratification and instruction he had afforded him.

"Dr. Grant was much pleased that his services had been so well received, but he absolutely refused the addition to the fees. He had made his own terms—they were his usual ones,—and by them he would abide. No persuasion could induce him to change his determination, and it was with difficulty he was induced to carry off the silk purse in which the money had been enclosed. "Dear sir, very faithfully yours,

"J. F. Clarke, Esq." "J. Russell.

## MEDICAL GENTLEMEN AND CO-OPERATIVE SOCIETIES.

Letter from Dr. George Johnson.

[To the Editor of the Medical Times and Gazette.]

Sir,—About six weeks ago I was persuaded by an agent of the "New Civil Service Co-operation" to purchase one of their tickets, and I was then asked to allow my name to appear as a "patron." To this I assented, with the understanding that no more was implied than that I was a ticket-holder and a possible purchaser of goods. Late on Friday evening last, the 6th inst., I received a copy of the Company's "price-list," when I discovered that, without permission given or asked, my name appeared as "consulting physician" at the head of a list of medical men with whom it was announced that "beneficial arrangements had been made." I immediately wrote to demand an explanation of this astounding and entirely unauthorised use of my name, and on Monday I instructed my solicitors, Messrs. Markby, Wilde, and Burre, of 9, New-square, Lincoln's-inn, to take such steps as they might deem expedient. The result has been an apology, a copy of which I enclose; and I shall feel much obliged by the early publication of the same, together with this explanatory note, in the *Medical Times and Gazette*. I am, &c.,

11, Savile-row, November 11. George Johnson.

[*Copy.*]

"The New Civil Service Co-operation (Limited),

"124, Queen Victoria-street, E.C., November 11th, 1874.

"Sir,—We find that, through a misunderstanding on the part of our advertising clerk, your kind consent to honour the Company by becoming a patron has been misconstrued, and your name inserted in the price-list of the New Civil Service Co-operation (Limited) as consulting physician to the members under certain beneficial arrangements.

"We readily admit that this was an entire error, and we have, therefore, erased your name as consulting physician from every copy in our possession, and undertake that it shall appear in future merely amongst the list of patrons. You are quite at liberty to publish this letter, and we sincerely regret that any mistake should have occurred.

"I remain, Sir, your obedient servant,

"T. R. W. Drummond Hay, Lt.-Col.,

"Secretary of New Civil Service Co-operation (Limited).

"To George Johnson, Esq., M.D., F.R.C.P.,

11, Savile-row, W."

# REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, October 27.

Timothy Holmes, F.R.C.S., Hon. Librarian, in the Chair.

### Aneurism of the Abdominal Aorta of Unusual Size.

Dr. Robert H. Bakewell read the notes of this case. The patient, a man of about thirty-eight, after suffering for some months from pain in the back, left thigh, and knee, found a swelling in the left lumbar region. About a week after this appeared the writer was called in—on April 24,—and found a round fluctuating tumour there, which could also be felt through the abdominal wall. There was no pulsation; fluctuation could be felt very distinctly both in front and behind. The patient was seen again the next day, and then not for a month. On May 25 the tumour was found bulging out at the side and in the lumbar region, and occupying the whole of the left side of the abdominal cavity, and pulsating vehemently. The tumour was evidently an enormous aneurism of the aorta. A gentleman to whom it was shown by the writer thought it a cyst or abscess, and proposed to tap it. This being agreed to by the patient, a fine trocar was plunged in. Nothing but blood flowing out, the canula was plugged and left in. The aneurism continued to increase in size, and the man died from exhaustion on June 29. There was no hæmorrhage from the aneurism. At the post-mortem examination the aneurism was found to have originated from an opening in the posterior wall of the aorta opposite the twelfth dorsal vertebra. The aorta was the seat of extensive atheromatous disease. The heart was small, pale, and fatty, but both endocardium and pericardium were free from disease.

The Chairman remarked that aneurism seemed common among painters. He himself had seen three in the subjects of lead-poisoning. This he thought militated against the plan of lead treatment. In this case there was no pulsation when the tumour was first discovered; this was not uncommon in cases of abdominal aneurism. He had a case where the only symptom to be found was great pain in the back and one leg. After an unusually careful examination there came on much pain and collapse, the patient in no long time dying. A large aneurism, which had burst into the omentum, was found. Pulsation was most likely to occur when the aneurism was tense. It was just possible that in this case repeated tapping might have done good. In an interesting case reported by Professor Gairdner great relief was given by bleeding. Certainly the plan of leaving in the trocar was not to be commended.

Dr. Day said that in a case seen by him on the first occasion there was no pain, but the next time there was both pain and pulsation. It ended in bursting.

### Case of a Foreign Body Impacted in the Female Pelvis for Twenty Months—Recovery after its Removal.

Mr. Richard Barwell read notes of the above case. The lady, the subject of this paper, having great dread of identification, it becomes necessary to conceal under a pseudonym the medical man who called Mr. Barwell to the case. In May, 1874, Dr. Blank called Mr. Barwell to a lady, aged twenty-four, with abscess about the hip, and gave the following history:—Miss X. had consulted Dr. Blank for supposed sciatica in February, 1873, but he gave the opinion that she was not suffering from mere sciatica, but from some local irritation. Under the treatment prescribed she got better, and he lost sight of her for a year. She then called on him again, with abscess, and he extracted the confession that some time before the first interview she had been seduced, and by the intervention of a female friend had procured the service of an abortionist. This man had passed in at the vulva what by description was judged to be a gum-elastic catheter; it was left *in situ*. The man returned next day, but nothing save the ivory button was left for removal. Mr. Barwell found a large abscess over the hip, and a sinus in front of the anus, which did not communicate with the abscess. He was obliged to content himself with letting out the pus, which was highly fæculent. A week after he examined the patient—per vaginam: leucorrhœa, a pendant cervix, and a patulous os uteri; on passing the finger around the cervix, Mr. Barwell felt in posterior *cul-de-sac* a transverse line of induration, but no opening anywhere in the vagina. Per rectum, by searching very high, and with a good deal of pressure over the pubes, a like line was detected in front of the rectum. Search was made for an opening, and after a time, still higher in the bowel, a small one was discovered; this was dilated, the finger introduced, and a foreign body found. A narrow pair of long forceps was passed in, the body seized, and a loop of it drawn through the opening into the rectum, and within better reach of the finger, which was hooked into it. Thus was drawn into the rectum, and out at the anus, a gum-elastic catheter which had lain between uterus and bowel for twenty months. The patient has not had a bad symptom since the operation, but was perfectly well six weeks after, and has remained well up to the present time. The author reads the history thus:—It is probable that the abortionist used the catheter with the stylet, that he passed it into the os uteri, and thrust it through the posterior wall, but only to a certain extent, and withdrew the stylet; that subsequent defæcation, and the expulsory movements of the uterus, forced or drew the remainder of the instrument through the wound. That it lay curved (in form like the brim of the pelvis) between uterus and rectum; set up the irritation attributed to sciatica, and afterwards the suppuration terminating by opening outwards and into the rectum.

Mr. Spencer Wells had some difficulty in understanding Mr. Barwell's explanation. Accepting his statement, the catheter must have passed through the peritoneal cavity. More probably in pushing the body through the canal of the cervix it must have passed through the vagina, and so into the connective tissue beyond.

The Chairman remarked that there was no mention of abortion having taken place; but on this point Mr. Barwell was unable to give any accurate information.

Mr. De Méric asked if menstruation had taken place, and if the bowels were in order.

Mr. Barwell said there must be omissions in such a paper. The patient seemed now quite well.

Case of Successful Removal of a Large Fibro-myoma of the Fundus Uteri by Abdominal Section.

Mr. Lawson Tait read the notes of this case. The abdominal tumour had been in existence for five years, growing rapidly in the preceding months, during which the catamenia were very profuse, and the distress great from pressure on the pelvic organs. Symptoms of obstruction having several times occurred, and the patient expressing an earnest desire to be relieved, the removal of the tumour was recommended, and the operation performed on January 16, 1873. The operation was conducted as for ovariotomy, the chief difficulties occurring in the extraction of the tumour and the application of the clamp, the tumour involving the whole of the fundus uteri. The wound was closed by five deep sutures, and three superficial. The succeeding sickness yielded to the administration of Morson's pepsine wine, and the recovery was uninterrupted. The clamp came away on the eighth day after the operation, the wound healing rapidly, and all that remains of the uterus is a little button representing the cervix attached to the abdominal cicatrix. The tumour after removal weighed eleven pounds. The temperature observations were made by Dr. John Harvey, who watched the case.

The Chairman regretted that the reasons for such a serious operation were not more distinctly stated.

Mr. Spencer Wells said he would bring the substance of his notes on such operations before the Society at a subsequent period. He had only three cases of the kind which could be called successful. In one the patient died after a year from cancer; in two he had been quite successful. The mortality was larger than after ovariotomy. His own rule was, not to operate except the disease was bringing the patient to death.

After some remarks by Mr. Cooper Forster and Mr. Spencer Wells as to the treatment of intra-uterine bleeding growths,

The Chairman again insisted that in the report of such a case we should have had a much more distinct statement as to the reasons for the operation.

The Society then adjourned.

## THE PATHOLOGICAL SOCIETY.

Tuesday, November 3.

Sir William Jenner, Bart., M.D., President, in the Chair.

The report of the Morbid Growths Committee on Mr. Wilkinson's specimen of Vascular Tumour of the Neck, which was exhibited on May 19 last (*Medical Times and Gazette*, 1874, vol. i., page 704), was read. The growth was found to be precisely as described by the exhibitor—an angeioma with abundant development of connective tissue.

Trichophyton in Alopecia Areata.

Mr. Waren Tay brought forward two cases of Alopecia Areata communicated from ringworm with the trichophyton tonsurans in living subjects. These were two children—brothers,—of whom the one, three years of age, had patches exhibiting all the characters of alopecia areata on the scalp, and the other, aged eleven, ordinary ringworm. Spores and mycelium resembling trichophyton were found on the bald patches (and elsewhere) on the head of the younger child, though there were no naked-eye changes suggesting the existence of ringworm. Similar fungus elements were present on the scalp of the elder child. The history given by the mother was that the elder child began to be affected with ringworm about eighteen months ago, and that twelve months ago all the members of the family had patches of ringworm on various parts of the body, the younger child having a patch over the eye. These patches soon disappeared; the elder child alone remaining affected. Five months ago a patch of baldness was noticed on the head of the younger child. It was smooth from the first, and different from the scurvy patches on the other children. The coexistence of changes characteristic of ringworm and of alopecia areata in these two children might be a mere coincidence; but taking the cases in conjunction with others previously recorded by Mr. Hutchinson, Dr. Hillier, Dr. Tilbury Fox, etc., Mr. Tay thought that they were sufficiently interesting to be brought before the notice of the Society. He added, in reply to questions put by the President and by a member, that he had found trichophyton in the scalp of the younger child in other than bald places, and that by ringworm he meant tinea tonsurans.

Dr. Tilbury Fox said that some might consider the relation between these cases a mere casual one only; and it was undoubtedly the fact that in 99 cases out of 100 of circumscribed baldness no fungus can be found. But at the same time there was evidence that circumscribed baldness may be developed along with the growth of a fungus. He had seen and recorded such a case eight years ago. Mr. Smith had brought forward another; and Dr. White, of Harvard University, had published similar ones. The fungus was not in every such case sufficiently abundant to account for the baldness, but sometimes it was. Dr. Tilbury Fox would not say, therefore, that circumscribed baldness cannot be produced by a fungus.

The President remarked that he would not say that such an event is impossible. Yet there is abundant evidence that circumscribed baldness frequently occurs without trace of fungus. In other cases fungus might be present; but fungus grows readily; and where more likely than in a nidus of atrophied hair-bulbs? And in tinea tonsurans the fungus is probably not the essence of the disease, even though it may be always present. In tinea tonsurans there is no atrophy of the hair-bulbs; in alopecia there is. There is, therefore, no evidence that the fungus has any tendency to produce this change on the hair. In the present instance the subject of the disease suffered from scurfy skin, and the fungus was found where no baldness existed whatever.

Mr. Tay pointed out that the parasite may be present where there is no baldness in tinea tonsurans also.

Dr. Hilton Fagge expressed his opinion that alopecia areata is not a disease due to the presence of a fungus. Some years ago he had examined the children of a school where 200 of the inmates were simultaneously affected with small patches of baldness on the scalp. There was no fungus to be found on the most careful search. Yet the evidence of contagion was very strong. In these diseases there were many sources of fallacy. One very important fact was that in tinea tonsurans the hair may not fall off in the affected places. Dr. Fagge mentioned the case of a girl who gave every child which she nursed tinea tonsurans, but presented a healthy scalp herself. With great difficulty Dr. Fagge found fungus among occasional broken hairs. The sources of fallacy in alopecia were even more numerous. There seemed to be, for example, a decided family tendency to this disease in some cases. Taking these facts into consideration, as well as the absence of fungus in the great majority, he did not believe that alopecia areata was caused by a fungus.

The President confirmed the truth of Dr. Fagge's observation on alopecia running in a family.

Dr. Tilbury Fox said that the numerous possible fallacies in the question under discussion had been perfectly recognised and allowed for in the attempts which have lately been made to settle it. At present, however, they were occupied with a simple matter of fact: Had a plentiful supply of fungus been met with on well-marked patches of alopecia areata?

The President contended that a fungus cannot be the cause of the baldness if it occur only occasionally. In the present case tinea tonsurans occurred as well.

Dr. Edward Sparks said that years ago he saw at the same time two brothers, aged seven and twelve, affected with alopecia areata. The elder boy, who was first attacked, was recovering, and the new hairs were of the characteristic whitish colour of the young hairs in true alopecia areata. The patches on the younger boy's head were smooth, completely bald, and sharply defined. There was no scurfiness and no broken hairs. No sign of a fungus could be detected microscopically.

Fœtal Endocarditis.

Mr. Clement Lucas exhibited a Heart from a Case of Cyanosis, with complete atresia of the pulmonary orifice and perfect septum ventriculorum. The subject was an infant of

six days, which had presented the usual symptoms of cyanosis. The auricles were found to communicate freely; the left ventricle was very large, dilated, and thickened; the ductus arteriosus was patent. The Eustachian valve formed an almost complete septum across the right auricle. The right ventricle was so small that it probably contained no blood, and certainly none could have been discharged from it, for its cavity would not have contained a pea. The pulmonary valves were in close mutual contact.

Dr. Cayley said that this must have been a case of fœtal endocarditis, which had occurred after the closure of the septum ventriculorum.

The President agreed with Dr. Cayley. This could not have been a malformation, otherwise the valves would not have been perfectly adherent and well formed. The large size of the foramen ovale corresponded. The remainder was the usual condition of parts.

### Acute Enteritis.

Dr. Goodhart exhibited a specimen of Acute Enteritis from the body of a man of thirty-six, who had suffered for six weeks from a somewhat anomalous combination of symptoms, including sore throat, skin eruptions, facial erysipelas for a time, and profuse otorrhœa during the last few days of his life. The pulse steadily rose, while the temperature was, on the whole, low. Post-mortem there were found suppuration in one tonsil, ulceration of the uvula, and purulent inflammation of the left tympanic cavity. The peritoneum was intensely injected; the coats of the intestine were greatly thickened, and abundantly ulcerated both in its lower and in its upper portions, the submucous tissue being filled with pus. The nature of this case was obscure, both clinically and pathologically. In some respects it resembled diphtheria, yet some might call it scorbutic dysentery, and others typhoid fever. To questions put by the President and Mr. Lennox Browne, Dr. Goodhart replied that the throat was frequently examined during the man's illness, but never with the laryngoscope; nothing beyond swelling was ever found on these occasions.

### Carcinoma of the Transverse Colon.

Dr. Dowse showed a Carcinomatous Growth in connexion with the right half of the Transverse Colon. The specimen was removed from the body of a woman of sixty-three, who was admitted into the Central London Sick Asylum on September 17. Upon examination a swelling was found in the upper third of the abdomen, and to the right of the median line, movable, but painless upon pressure. Notwithstanding the presence of these signs pointing to affection of the colon, the diagnosis was difficult as to the exact seat of lesion, as the patient had never suffered from dyspepsia, hæmorrhage, vomiting, constipation, or obstruction. Post-mortem all the viscera were found fairly healthy except the part referred to. In connexion with the transverse colon to the extent of about five inches was a cancerous mass, which might originally have been solid and about the size of a cricket-ball, but was now flattened from disintegration of its central portion, forming a sac in connexion with the inferior and posterior surfaces of the gut. The wall varied in thickness with the outgrowth of the cancerous patches, which presented a rounded and lobular outline. The lumen of the colon communicated by a large irregular opening with the cavity of the cancerous mass. Dr. Dowse remarked that the condition was unusual, inasmuch as a cancerous mass, in all probability of some years' duration, existed in direct connexion with, if it had not originated in, the wall of the bowel without producing constriction. The coats of the intestine had been destroyed from without inwards, and the ulceration had led to perforation of the bowel, whereby the cancerous mass became converted into a diverticulum.

Mr. Arnott said that there was not sufficient evidence of the ulceration having proceeded from without inwards. He also wished to know more about the intimate nature of the growth. Was there cancer in any other organ?

Dr. Dowse replied that there was no secondary disease, and stated that the microscopical examination of the growth was but a hasty one. He stated his reasons for considering the perforation to have taken place inwards.

[The specimen was referred to the Committee on Morbid Growths.]

### Aneurism of the Pulmonary Artery.

Dr. Dowse also showed an Aneurism of the Pulmonary Artery from a girl of nineteen years. The patient had been the subject of acute rheumatism four years previous to her admission. There was urgent dyspnœa, and the area of cardiac dulness was increased in every direction. The apex-beat was felt just below the sixth rib, accompanied with palpable fremitus in systole. A rough systolic grinding murmur was heard over the whole of the chest, the seat of its greatest intensity being decidedly to the left of the sternum, between the second and third ribs, over the pulmonary valves. Post-mortem, the pericardium was unduly prominent, and adherent by recent inflammation to the free border of the left lung. The two pericardial surfaces were united by means of a layer of semi-organised fibrine. When this was reflected (the heart being still *in situ naturale*) an abnormal swelling, about the size of a small pullet's egg, was readily observed at the base, and immediately in front of the pulmonary artery. It was more or less solid, and possessed an investing coat formed from the connective-tissue layer of the arterial wall. When the pulmonary artery was slit up, its valves were found to be completely eroded and replaced in great part by granular vegetative growths. The sac of the aneurism was filled incompletely by a mass of fibrine, not perfectly homogeneous, but in some parts granular, and presenting rather the character of the vegetative growth on the valves. Dr. Dowse believed that the tumour had originated by interstitial inflammation of the inner coat of the artery.

### Alveolar Sarcoma of the Skin.—Round-celled Sarcoma.

Mr. Godlee exhibited a specimen of Alveolar Sarcoma of the Skin of the Leg. It consisted of several nodules from the skin of the leg of a middle-aged man. This rare form of sarcoma is distinguished from others by the fact that besides the ordinary intercellular stroma there is a coarser areolation dividing the cells into groups of four to eight. Thus it has the appearance at first sight of a delicate cancer. Clinically it is a true sarcoma—that is, it occurs in tissues which sarcoma affects, but where cancer is rare, and it spreads by the vascular system or embolism, instead of through the lymphatic system. Mr. Godlee also exhibited a large Sarcoma from the Thigh. This tumour was clinically interesting because neither before its removal nor during the operation could it be decided whether or not it sprang from the bone. Ultimately it was found to be growing from the muscles round the upper part of the femur. It was an ordinary round-celled sarcoma. Both cases were under the care of Mr. Hill at University College Hospital; the former was amputated in the leg, the latter at the hip-joint.

### Primary Enchondroma of the Lung.

Dr. Wickham Legg presented microscopical specimens from a Primary Enchondroma of the Lung, which was found post-mortem in a man who had died of interstitial nephritis. It occurred in the apex of the lower lobe of the left lung, was very small, firm, cartilaginous in appearance, and presented under the microscope a matrix highly fibrillar and partly calcified, containing groups of cells of a cartilaginous character. Primary enchondroma of the lung had very seldom been recorded, but such nodules were probably but rarely examined, being usually smaller than a walnut.

Mr. Arnott asked whether the testicles and the parotid region were examined; and

Dr. Legg replied in the affirmative;—no other organ contained enchondroma.

Dr. Cayley inquired whether the nodule was found in the lung tissue or connected with the pleura only. In the latter situation masses of cartilage had been shown by Virchow to be perfectly harmless.

Dr. Wickham Legg replied that the tumour was half an inch or more beneath the pleural surface, and not in the neighbourhood of any bronchus.

### Fibroid Disease of the Heart.

Dr. Goodhart exhibited a Heart with Fibroid Patch, associated with Fibroid Testes, in a man of forty-nine. No history of syphilis had been obtained, but scars were found in the groin and in the trachea, and both testes were fibroid. The man died of aortic aneurism.

### Syphilitic Disease of the Heart.

Dr. Cayley showed a specimen of Syphilitic Disease of the Heart taken from the body of a man, aged twenty-eight, who was found dead in bed. The previous health had been good, but the man was the subject of syphilis, and had taken chloral habitually for sleeplessness. On the night of his death he was supposed to have swallowed twenty or thirty grains of the drug—probably his usual amount. Post-mortem, most of the

viscera were found to be healthy. The heart was large, the left ventricle being especially hypertrophied; several fibroid nodules were found in its walls, one of which projected both inside and outside—they were of a dense white appearance. Microscopically these fibroid nodules were composed of fibro-nucleated tissue, of small round cells with some intercellular substance, and some yellowish spots. Dr. Cayley referred to the specimens of fibroid disease of the heart exhibited last session by Dr. Hilton Fagge. In the present case the aorta was healthy; the muscular fibres of the heart around the nodules were not fatty.

CONGENITAL DISEASE OF THE AORTIC VALVES.

Dr. CAYLEY also exhibited a specimen of Congenital Disease of the Aortic Valves. A child died at the age of nine months, after having suffered from dyspnœa from birth. There was a loud general systolic murmur, but no actual cyanosis. The left ventricle was greatly enlarged; the aortic orifice covered with vegetations; the septum ventriculorum and foramen ovale were perfectly closed. The disease was considered congenital by Dr. Cayley because there had been dyspnœa from birth; but, as the orifices were closed, the condition could not have dated far back into intra-uterine life.

The PRESIDENT remarked that one could scarcely conceive so much intra-uterine change accompanied with closure of the foramen ovale.

## OBITUARY.

EDWIN LANKESTER, M.D., F.R.S., etc.

WE last week noticed the death of Dr. Lankester, a man who for many years has occupied a prominent position amongst us as Coroner for Central Middlesex and Medical Officer of Health for the Parish of St. James's, Westminster, and as the author of many works on sanitary reform, botany, and food. He was born on April 23, 1814, at Melton, Suffolk, and was educated at Woodbridge, where he was articled to the late Mr. Samuel Gissing, surgeon. He pursued his medical studies at University College, at which institution he greatly distinguished himself as a student of botany, to which science he had an earnest attachment from his earliest years. At the conclusion of his studies he passed his examinations at the College of Surgeons and the Society of Apothecaries. He afterwards studied on the Continent, took his degree at the University of Heidelberg, and subsequently received the degree of LL.D. from Amherst, United States. He was appointed Medical Officer of Health for the important parish of St. James's, Westminster, in 1862. In the same year, after a fierce contest with a solicitor, he was elected Coroner for Central Middlesex by a majority of about fifty votes. In both these offices he acquitted himself to the satisfaction of most, though some of the Middlesex magistrates found great fault with him for ordering what they called "unnecessary" post-mortem examinations. We alluded to this subject in our last issue, and it is unnecessary to refer to it further. Whatever may have been the shortcomings of Dr. Lankester in his office of Coroner, it is certain that he did his utmost to maintain the dignity and usefulness of that ancient tribunal. In proof of the services which Dr. Lankester rendered to the cause of public health, as physician, author, and lecturer, we cannot do better than give the following short and very imperfect list of his works:—"Twelve Lectures on Food," 1861. "Twelve Lectures on Animals useful to Man," 1862. Translation from German of "Principles of Scientific Botany, by Dr. M. J. Schleiden," 1849; and of "Küchenmeister's Animal and Vegetable Parasites inhabiting the Human Body." "Guide to the Food Museum, South Kensington." "A School Manual of Health," 1868. First, Second, Third, Fourth, Fifth, and Sixth Annual Reports of the Coroner for Central Middlesex; as well as numerous contributions to medical and scientific journals, and popular works in medicine and science. He succumbed at the really premature age of sixty to carbuncular disease and diabetes. He died at Margate on October 31, and was buried at Hampstead the following week.

## MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent Second M.B. Examination:—

*First Division.*—Branfoot, Henry Seymour, Guy's Hospital; Crocker, Henry Radcliffe, University College; Duncan, Andrew, King's College; Duncan, Peter Thomas, University College; Eastes, Thomas, Guy's Hospital; Gould, Alfred Pearce, University College; Harris, Vincent Dormer, St. Bartholomew's Hospital; Nicholson, Arthur, King's College; Rigby, James Arthur, Guy's Hospital; Sturge, William Allen, University College; Whittle, Edward George, University College.

*Second Division.*—Ashby, Henry, Guy's Hospital; Beach, Fletcher, King's College; Briggs, George Chapman, King's College; Davies, David Arthur, University College; Houghton, Walter Benoni, University College; Morley, Thomas Simmons, Guy's Hospital; Moss, Herbert Campbell, King's College; Percival, George Henry, Guy's Hospital.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the recent sittings of the examiners:—

Birtwell, Daniel, Clayton-le-Moors.
Boulton, William Thomas Livingstone, St. John's, New Brunswick.
Eadon, William Frederick Bailey, Sheffield.
Houghton, Thomas Herbert, Lancashire.
Phillips, Charles Henry, Manchester.
Riordan, Patrick A., Cloyne.
Rodman, John, Kilmarnock.
Shand, Henry Miller, Aberdeenshire.
Worswick, Frederick Henry, Manchester.

The following gentlemen passed their final examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Aitchison, James, Newcastle-on-Tyne.
Anderson, James Fisher, County Armagh.
Atkinson, William Joseph, County Kildare.
Clark, Harry Foord, Farnham.
Daly, Timothy, Crookstown.
Gallimore, Thomas, Ashwood, Longton.
Gowland, George Robert, Sunderland.
Grant, James, Caithness.
Gray, James Campbell, Finvoy.
Grevile, Frank Angiere, Clifton, Bristol.
Large, Brisbane Warren, Cork.
Maclean, John Hugh, Edinburgh.
MacAuliffe, Alexis, Cork.
M'Intyre, William, St. Andrews.
O'Dea, Patrick S. Lawrence, County Galway.
Pearde, Henry, Aix-la-Chapelle.
Pollard, Clement, Taunton.
Williams, Theobald Wolfe Tone, London.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 11th inst., and when eligible will be admitted to the pass examination:—

Anderson, William Stirling, student of the Glasgow School.
Baillie, John H. J., of St. Bartholomew's Hospital.
Bigg, George S. K., of the Middlesex Hospital.
Brumell, Arthur, of St. Bartholomew's Hospital.
Caffyn, Stephen, of University College.
Coates, Harcourt, of University College.
Collingridge, William, of St. Bartholomew's Hospital.
Ellis, Joseph Watson, of St. Bartholomew's Hospital.
Elsmere, Edward, B.A. Cantab., of the Cambridge and St. George's Hospitals.
Ewen, Harry Walter, of Guy's Hospital.
Farrant, William, of Guy's Hospital.
Foster, Henry, of the Leeds School.
Guillemard, Francis H. H., B.A. Cantab., of the Cambridge School.
Hicks, Frederick John, M.A. Oxon., of University College.
Ingram, Ernest Fortescue, of Guy's Hospital.
Irvin, Joseph Henry, of the Manchester School.
Kains, Robert, of the Toronto School.
Liosey, Alfred Edwin, of the Liverpool School.
Orchard, James Stuart, of the Aberdeen School.
Phelps, Arthur Martin, B.A. Cantab., of the Cambridge and St. Thomas's Hospitals.
Price, Ebenezer E., of the Middlesex Hospital.
Renny, Archibald William, of the Edinburgh School.
Reynolds, Hubert Sextus, of the Birmingham School.
Slatter, Oliver Thomas, of Guy's Hospital.
Smett, Frank Hayes, of the Manchester School.
Smith, Ferdinand Clarence, of University College.
Sykes, John E. G., of the London Hospital.
Vaillant, Marie Edouard, of the Heidelberg and Vienna Schools.
Ward, Charles, of the London Hospital.
Wartenberg, Victor Adolph, of the Manchester School.
Weddell, William Henry, of St. Mary's Hospital.
Williams, Patrick J. H., of the Dublin School.

Only six candidates out of the thirty-eight examined failed to acquit themselves to the satisfaction of the Court of Examiners, and were therefore referred to their anatomical studies for three months.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their first professional examination during the recent sittings of the examiners:—

Fearnley, William, West Hardwick, Pontefract.
Gibson, Charles, Newcastle-on-Tyne.
Kiermander, H. B., Calcutta.
Pyper, Andrew, Edinburgh.

The following gentlemen passed their final examination, and were admitted L.R.C.S.E. :—

Cleary, Martin Francis, Nenagh.
Colthurst, Ludlow Tonson, Cork.
Hill, Robert Bryden, Kent.
Lamprey, Joseph John, Dublin.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 5 :—

Kershaw, Joseph, Byrom-street, Manchester.
Newton, Edward Shackfield, Canonbury-park.
Strugnell, Frederick William, Carlton-road, Kilburn.
Tomlin, Robert Francis, Lewisham-road, New-cross.

The following gentlemen also on the same day passed their primary professional examination :—

Henwood, John Davey, Charing-cross Hospital.
Lingard, Alfred, St. Thomas's Hospital.
Saunders, Edward Argent, University College.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALDERTON, T. G., L.R.C.P. Lond., M.R.C.S.—House-Surgeon at the West London Hospital, *vice* W. L. Webber, L.R.C.P., M.R.C.S., resigned.

DAVIES, ROBERT, jun., L.R.C.P., L.F.P.S.—House-Surgeon to the Carnarvonshire and Anglesea Infirmary, Bangor.

FULSHAW, RALPH, M.R.C.S., L.S.A.—Medical Officer for the Earl Shilton District of Hinckley Union, Leicestershire.

HUBBARD, THOMAS COATH, L.R.C.P., L.R.C.S. and L.M. Edin.—Medical Officer for the Borough District of Walsall Union.

LLOYD, ROBERT HODGENS, M.R.C.S. Eng., L.S.A.—Medical Officer for the Infirmary of the Parish of Lambeth.

MACLACHLAN, JAMES, M.D.—Medical Officer for the Workhouse of Walsall Union, Staffordshire.

NESHAM, T. C., M.D., M.R.C.S. Eng., L.S.A.—Lecturer on Midwifery in the University of Durham College of Medicine, Newcastle-on-Tyne.

SMITH, THOMAS B., M.R.C.S., L.S.A.—House-Surgeon to the Bridgnorth Infirmary and Dispensary, *vice* Mr. David L. Parry, M.D., resigned.

WHITMORE, W. T., M.R.C.S.—House-Surgeon and Chloroformist at the West London Hospital, *vice* T. G. Alderton.

WREFORD, SAMUEL, M.R.C.S.E.—House-Surgeon to the York County Hospital, *vice* Mr. Kebbell, resigned.

## NAVAL APPOINTMENTS.

ADMIRALTY.—Richard Denton Mason, Esq., C.B., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of November 3, 1874.

## BIRTHS.

BOND.—On November 2, at 50, Parliament-street, Westminster, the wife of Bond, F.R.C.S., of a daughter.

STEWART.—On November 8, at North Camp, Aldershot, the wife of Surgeon-Major W. Stewart, M.D., 21st R.N.B. Fusiliers, of a daughter.

THOMAS.—On November 1, at 97, Bradford-street, Birmingham, the wife of William Thomas, F.R.C.S., of a son.

WRIGHT.—On November 5, at Wellingborough, the wife of J. Brampton Wright, M.D., of a daughter.

## MARRIAGES.

CASSIRER—HULL.—On November 3, at Kensington, Hugo Cassirer, of Reichenbach, to Caroline Jane, daughter of George Hull, M.D., of Kensington, formerly of Montrose.

HUTCHINSON—STUART-MENTETH.—On October 6, at Christ Church, Simla, Henry Doveton Hutchinson, Lieut. and Adjutant 40th N.I., Bengal Presidency, eldest son of T. Cayley Hutchinson, Deputy Inspector-General of Hospitals H.M. Indian Army, retired, to Alice Annie Campbell Stuart-Menteth, daughter of the late Lieut.-Colonel W. Stuart-Menteth, Bengal Army, and granddaughter of the late Sir Charles Granville Stuart-Menteth, Bart., of Closeburn, Dumfriesshire, and of Mansfield, Ayrshire.

MANN—SHARMAN.—On November 4, at St. Paul's, New Wandsworth, Horace, youngest son of the late George Smythe Mann, F.R.C.S., Deputy Inspector-General of Hospitals, Bengal Army, to Adammina Lucy, youngest daughter of Henry Sharman, Esq., of Park-road, Wandsworth-common.

TIMMINS—BUCKLEY.—On November 3, at All Saints Church, Llanelly, I. A. J. Timmins, M.D., of Carmarthen, son of I. A. Timmins, Esq., of Mount Hill, Carmarthen, to Mary Anne, third daughter of James Buckley, Esq., of Penfai and Castell-Gorfod, Carmarthenshire.

WILSON—BUCHANAN.—On November 4, at 2, Sandyford-place, Glasgow, J. G. Wilson, M.D., F.R.S.E., of Glasgow, to Edith Gray, youngest daughter of the Rev. Robert Buchanan, D.D., of Glasgow.

## DEATHS.

BEVAN, HANNAH M., widow of the late Thomas Bevan, M.D., of Finsbury-circus, London, at Penge, Surrey, the residence of her son, C. H. Bevan, Esq.

BURN, JANET MARIANNE, the beloved wife of George A. Burn, M.D., 4th Cavalry, Hyderabad Contingent, at Bath, on October 31.

CAMPBELL, ARCHIBALD, M.D., Ardmore Islay, late Superintendent of Darjeeling, Bengal, at Denmark House, Slough, on November 5, in his 70th year.

CRONIN, ELIZA, wife of William James Cronin, F.R.C.S., at Queenstown, Ireland, on October 20.

LANKESTER, EDWIN, M.D., F.R.S., Coroner for Central Middlesex, at Margate, on October 30, in his sixty-first year.

LEGRAND, WILLIAM, M.D., F.R.C.S., Deputy Inspector-General of Fleets and Hospitals, Royal Navy, at 22, Manor-road, New-cross, on November 4, aged 69.

MACKERN, THOMAS, M.D., of Eliot-place, Blackheath, at Eastbourne, Sussex, after a few days' illness, on November 7.

O'FLAHERTY, MARY, eldest daughter of T. A. O'Flaherty, M.D., of Ardagh House, Killarney, late of 2, Baker-street, Portman-square, London, of low fever, at Salvator Kloster, Münstereifel, Germany, where she was finishing her education, on October 31, aged 19.

ROBERTS, ELIZABETH, beloved wife of William Roberts, M.D., of Mosley-street, Manchester, at Woodlands Park, Timperley, on November 7, aged 30.

SAUNDERS, ALICE ANN, beloved wife of H. W. C. Saunders, Esq., eldest daughter of the late Dr. Alexander Leigh (60th Royal Rifles), at St. Helier's, Jersey, on October 22, aged 28.

SAVERY, JOHN, M.D., at Roselands, Hollington, near Hastings, on November 2, aged 76.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DERBYSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Applications, with testimonials, to the Secretary, Mr. Samuel Whitaker, 4, Victoria-street, Derby, on or before November 21.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Candidates must be M.R.C.S., and registered under the Medical Act. Applications, with testimonials, to Mr. J. Bullivant, 58, Abbey-street, Derby, on or before November 16.

DISTRICT INFIRMARY, ASHTON-UNDER-LYNE.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, on or before December 14.

EVELINA HOSPITAL, SOUTHWARK-BRIDGE-ROAD, S.E.—House-Surgeon. Candidates must possess a recognised qualification. Applications, with testimonials, to the Committee of Management, on or before Nov. 20.

HUDDERSFIELD INFIRMARY.—House-Surgeon. Candidates must be fully qualified, and unmarried. Applications, with testimonials, to the Secretary, on or before November 23.

QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Secretary and General Superintendent. Candidates must be unmarried. Applications, with testimonials, to the Chairman of the House-Committee, at the Hospital, on or before November 25.

TRINITY COLLEGE, DUBLIN.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Lecturer on Anatomy, Lecturer on Medical Jurisprudence, Lecturer on Botany, and Demonstrators of Anatomy. Applications, with testimonials, to the Secretary, on or before November 21.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Cookham Union.*—Mr. John Westell has resigned the Bray District; area 16,670; population 6855; salary £160 per annum.

*Newport Pagnel Union.*—Mr. H. Hailey has resigned the Workhouse; salary £50 per annum.

### APPOINTMENTS.

*Bath Union.*—John A. Hicks, L.F.P.&S. Glasg., L.S.A., to the Sixth District.

*Brentford Union.*—Fredk. Davies, M.R.C.S. Eng., L.S.A., to the Workhouse.

*Dursley Union.*—Francis J. Joynes, M.R.C.S. Eng., L.S.A., to the Third District.

*Newcastle-on-Tyne Union.*—Henry W. Newton, L.F.P.& S. Glasg., L.S.A., to the Third District.

*Solihull Union.*—Francis Warner, M.D. Lond., F.R.C.S. Eng., L.S.A., to the Yardley District. Walter Tait, M.R.C.S. Eng., L.S.A., to the Knowle District.

GERMAN MEDICAL STUDENTS IN 1874.—It is stated in the German University Calendar that in the summer session of 1874 the number of medical students at the different universities were as follows :—Vienna, 963; Würzburg, 518; Leipzig, 502; Munich, 310; Berlin, 299 (exclusive of 160 pupils of the Friedrich-Wilhelm Institute and of the Medico-Chirurgical Academy); Dorpat, 283; Greifswald, 281; Graz, 275; Strasburg, 184; Zurich, 183; Bern, 174; Breslau, 170; Halle, 163; Königsberg, 161; Tübingen, 158; Erlangen, 151; Göttingen, 135; Marburg, 132; Bonn, 126; Freiburg, 117; Innsbruck, 99; Heidelberg, 83; Jena, 78; Basel, 69; Giessen, 65; Kiel, 55; Rostock, 29.—*Berliner Klin. Woch.*, October 19.

IMAGINATIVE LIBELS.—Dr. Baird, of Daylesford, sued Mr. Izett, the Town Clerk, for £100 damages for having characterised him as a "bounding medical kangaroo." His Honour, in nonsuiting the plaintiff, ridiculed the notion of the

words being in any respect libellous—the doctor, in fact, might have appropriated them in a complimentary sense. Had the parties been in England, and Izett had called the doctor a "British lion," or in Calcutta and the name chosen was "Royal Bengal tiger," there could be no possible damage to his income or reputation, and the doctor could take the term as synonymous with "redoubtable" or "indomitable." Here the kangaroo is the national animal, and to be likened to it was rather a compliment than otherwise. Nonsuit, with costs.—*Australian Medical Journal*, July.

HEALTH OF THE PUNJAUB.—The Sanitary Commissioner of the Punjaub, in his return for the week ending August 29 last, reports that the death-rate of the province continues to rise. The total deaths for the three weeks ending August 15, 22, and 29 were 5716, 5965, and 6301 respectively. There were two deaths registered under the head of cholera; they occurred in the town of Soucpat, in the Delhi district. More recent information shows that there had been altogether about thirty cases of cholera in that town up to September 13 last, of which twelve proved fatal. Small-pox mortality is nearly stationary; the deaths registered from this disease were 119, as compared with 126 in the previous week. Fifty-five, or very nearly one-half, of the total small-pox deaths occurred in the district of Ambálah alone.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*M. A. C.* is thanked.

*Nemo.*—There is such a work published by Messrs. Churchill.

*Sir J. R. Cormack.*—The paper shall be inserted next week, if possible.

*B.A. Cantab., Cottenham.*—The numbers of students registered as pursuing their studies at provincial schools in the decades mentioned were as follows:—1844, 229; 1854, 235; 1864, 247; and in the present year 1874 they have increased to 253.

*M.D., St. James's.*—The following is a copy of the inscription on the brass tablet inlaid in granite which is placed over the remains of Hunter in Westminster Abbey:—"Beneath are deposited the remains of John Hunter, born at Long Calderwood, Lanarkshire, N.B., on the 13th of February, 1728. Died in London on the 16th of October, 1793. His remains were removed from the Church of St. Martin's-in-the-Fields to this Abbey on the 28th of March, 1859. The Royal College of Surgeons of England have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine Power and Wisdom at work in the laws of organic life and their grateful veneration for his services to mankind as the founder of scientific surgery. 'O Lord, how manifold are Thy works; in wisdom hast Thou made them all.'—Psalm civ. 24."

*An Old Surgeon Superintendent* inquires whether the Government Emigration Commissioners knowingly employ homœopathic practitioners to take medical charge of emigrants to Australia, and points to the mortality amongst them on a recent occasion.

*Fellowship.*—You will find the desired information in our advertising columns. Write to the secretary.

*Tyssen.*—William Hey died on March 23, 1819—

"Those means which med'cine and the gospel give
To soul and body, Hey could well apply.
Useful that skill which made the dying live;
More useful that which taught him how to die."

*C. E. A.*—It was the late Dr. Gregory who said of the celebrated Dr. Radcliffe that "he was at least no fool; and we may depend upon it he would not have allowed a hundred ounces of blood to be taken from him in one day without good reason for it."

*W. P., Southsea.*—Dr. Stewart, of Edinburgh, records twenty cases and nine dissections in cases of Bright's disease, where he considered lardaceous disease to have been present. *Edinburgh Medical Journal* for February, 1861.

*Alfred P. P.*—In 1858 the number of known lepers in Norway was 2087. See report of International Congress of 1862.

*Dr. McM., Devonport.*—It is an old Hebrew proverb that "when the sun rises the disease will abate"; it originated from a tradition that Abraham wore a precious stone round his neck, which preserved him from disease, and which cured sickness when looked upon. When Abraham died God placed this stone in the sun.

*H. M., Borough.*—The engraved portrait of the late Bransby Cooper is scarce, as only 300 were struck off when the plate was destroyed: 225 were distributed to the subscribers, and the remaining seventy-five were presented to the Society for the Relief of Widows and Orphans of Medical Men, to increase the funds of the institution.

*Tuffnell.*—*British and Foreign Medical Review*, January, 1837, and January, 1838.

*A Foreigner.*—Laurence Bellini, an Italian physician, was born at Florence in 1643. He graduated at Padua, and afterwards became professor of philosophy at Pisa, which chair he exchanged for that of anatomy. He died in 1703.

*Leno.*— "Early, bright, transient, chaste, as morning dew,
He sparkled and exhaled, and went to Heaven."

*Gilbert N.*—A medical school was established in the Columbia College, New York, in August, 1767, but in consequence of the establishment of the College of Physicians and Surgeons in New York, the medical school of the former college was in November, 1813, discontinued.

*P. C. F.*—Sir Robert John Kane, M.D., was born in Dublin in 1810, and was knighted by the Lord Lieutenant of Ireland in 1846.

*M. S.*—The nomination of candidates for the Middlesex Coronership will take place on the 17th instant.

*Thomas Guy.*—The essays for the next triennial prize of £300, under the will of the late Sir Astley Paston Cooper, Bart., must be sent in on or before January 1, 1877. The subject for it is "the Anatomy, Physiology, and Pathology of the Sympathetic Nervous System." No official of Guy's Hospital can compete for it.

*Quinine.*—It is stated by John Evelyn, in his "Diary," vol. ii., p. 332, that "on visiting the Marquis of Normanby, November 29, 1694, he had much discourse with him concerning Charles II. being poisoned; also concerning the *quinquina*, which the physicians would not give to the King at a time when, in a dangerous ague, it was the only thing that could cure him (out of envy because it had been brought into vogue by Mr. Tudor, an apothecary), till Dr. Short, to whom the King sent privately to know his opinion of it, he being reported a Papist (but who was in truth a very honest good Christian), sent word to the King that it was the only thing which could save his life; and then his Majesty enjoined his physicians to give it to him, which they did, and he recovered. Being asked by Lord Normanby why they would not prescribe it, Dr. Lower said it would spoil their practice, or some such expression, and at last confessed it was a remedy fit only for kings."

*Coffee.*—According to Wanklyn, raw coffee contains 6 to 8 per cent. of sugar, which after roasting is reduced to 1 per cent., or even zero. The fat, on the other hand, seems to be increased by roasting from 4 or 5 per cent. to double that quantity, although perhaps the fat is not actually increased, but merely laid open by heat to the action of solvents. Roasted coffee is rich in nitrogen, but only half as rich as tea. Raw coffee is said to yield 25 per cent. to boiling water, but roasted coffee as much as 39 per cent., which last figure is perhaps excessive.

### PERFUMES AS DISINFECTANTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—My attention having been drawn to a letter you published from "An Afflicted Sanitarian" in your number of October 24, you will perhaps allow me to offer a few practical remarks respecting the use of perfumes as disinfectants.

Whether malaria and miasma arise from noxious gases or from invisible particles of matter I shall leave to scientific men to discuss and decide; but in either case I believe perfumes would act as antidotes. If they are noxious gases they probably contain sulphur or phosphorus, and both are dissolved and consequently neutralised by the essential oils forming the basis of all perfumes, which, being strongly ozonised, would also militate against the effluvia of organic decomposition. If they are particles of living matter, perfumes are a deadly poison for them, and will not fail to destroy them; hence the ancient custom of embalming—the object of which was to prevent the flesh from being devoured by its post-mortem aggressors,—and the modern custom of preserving furs from moths by means of aromatics. I may quote, as a well-known fact to back my opinion, the immunity from cholera enjoyed, both in Paris and London, by people employed in perfume factories or in tan-yards; for tan is also a perfume, *sui generis*. I may add that the perfume vaporiser mentioned in the notes of your last number was once employed on board of the West India mail-steamer *Tamar* in fumigating the vessel, which was infected with small-pox, and that it succeeded in checking completely the disease at the end of three days, as I can show by a letter received from the captain. The perfumes I used there, and would recommend in similar cases, were all derived from plants of the labiate order, such as lavender, rosemary, thyme, peppermint, etc.

The *Eucalyptus globulus* and other trees of the same family, very rich in essential oil, have also the remarkable property of destroying malaria in marshy districts, and I can refer your readers to a very interesting lecture delivered on this subject in March last by Professor Bentley at the Royal Botanic Society, which is greatly in favour of my theory.

I shall be very happy to see this question become the subject of serious investigation in this country, as it has already been in France and Italy, among the authorities of science; and I have every hope that the result will confirm my humble opinion. I am, &c.,

96, Strand, November 5. EUGENE RIMMEL.

### PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Students' Journal and Hospital Gazette—Sussex Coast Mercury—The Central News Circular of Coming Events—Northampton Mercury—Lincoln Gazette—The Standard—The Evening News and Hull Daily Express—Liverpool Daily Post—Journal de Médecine et de Chirurgie—Transactions of the Pathological Society, vol. xxv.

BOOKS AND PAMPHLETS RECEIVED—

Excision of Three Inches of the Median Nerve after an Old Gunshot Wound of the Left Elbow, by J. L. Stewart, M.D.—Lee on Whooping Cough as a Cause of Spinal Caries—Report of the Committee of Meteorology and Epidemics of the Philadelphia County Medical Society—Turnbull on Deaf-Mutism and the Method of Educating the Deaf and Dumb—Turnbull on Tinnitus Aurium, or Noises in the Ears—Weir Mitchell on Post-Paralytic Chorea—Da Costa on Strain and Overaction of the Heart (being the Third Toner Lecture)—Buckingham on the Mutual Relations of Druggists and Physicians—Report of the Sanitary Administration of the Punjaub—17 Jahres-Bericht des Schmedischen Heilgymnastichen Institutes in Bremen, von Prof. Dr. A. S. Ulrich—Ninth Report of the Quekett Microscopical Club—Hill's Health Report of the Borough of Birmingham—An Investigation into the Action of Veratrum Viride upon the Circulation, by H. C. Wood, jun., and J. Berens, M.D.—Clark on Public Health Administration—Rutherford on the Present Aspects of Physiology—Bakewell's Observations on the Growth and Reproduction of the Red Corpuscles of the Blood—Jardine's Elements of Psychology—Ross on Protoplasm—Hartshorne's Essentials of the Principles and Practice of Medicine, fourth edition—Steiner's Compendium of Children's Diseases, translated by Lawson Tait, F.R.C.S.—Michôd's Guide to Athletic Training—Talks about Health, by Mrs. Lankester.

COMMUNICATIONS have been received from—

Dr. G. Hayden, Dublin; Mr. G. F. Savage, London; Mr. W. Marriott, London; The Registrar of Apothecaries' Hall, London; Nemo; Mr. R. J. Godlee, London; Dr. Alcock, New Ross; Mr. S. Wreford, London; Mr. E. Rimmel, London; Mr. S. Preston, Hinckley; The Registrar-General, Edinburgh; Dr. C. Bell Taylor, Nottingham; The Secretary of the Astley Cooper Prize Trust, London; Mrs. Theobald, Leicester; Dr. Handfield Jones, London; Dr. Edwards-Crisp, London; Sir John Rose Cormack, London; The Rev. Professor Haughton, Dublin; Dr. George Johnson, London; Mr. F. Legrand, London; Dr. Rees Phillips, Cheltenham; Mr. G. Eastes, London; Messrs. J. Smith and Co., London; Dr. Edis, London; Dr. Farquharson, London; Mr. J. W. Groves, London; Mr. George Gaskoin, London; Dr. Sparks, London; Dr. Eustace Smith, London; Mr. J. Chatto, London.

## APPOINTMENTS FOR THE WEEK.

*November* 14. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

16. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic 1½ p.m.

Medical Society of London, 8 p.m. Mr. Braine will exhibit a living Specimen of Abnormal Growth of Lip. Dr. Cleveland, a Specimen of Warty Tumour. Mr. Napier, "Something New (or believed to be so) in the Science of Dental Surgery." Dr. R. J. Lee, "On Maternal Impressions."

17. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8 p.m. Dr. Whipham—Epithelioma of the Œsophagus Ulcerating through into the Trachea. Dr. Silver—Abscess of the Liver associated with Dysentery and Sloughing of Small Intestine. Dr. Graily Hewitt—Ovarian Cyst with Muscular Envelope. Dr. Fred. Taylor—Induration of the Sterno-Mastoid Muscle in an Infant. Mr. Clement Lucas—Cystic Cancer of the Kidney. Dr. Curnow—Double Arch of Aorta enclosing Trachea and Œsophagus. Dr. King—Aneurism of Aorta which Ruptured into the Left Auricle.

Statistical Society, 7¾ p.m. The President (Dr. Guy) will deliver the Opening Address at the New Quarters of the Society, Somerset House-terrace (King's College entrance).

18. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Meteorological Society, 7 p.m. The President, "Report concerning the Meeting of the Conference on Maritime Meteorology in London, August 31, 1874." Mr. R. Strachan, "On the Weather of Thirteen Springs." Mr. William Marriott, "Table for Facilitating the Determination of the Dew Point from Observations of the Dry and Wet Bulb Thermometers." Hon. Ralph Abercromby, "On the Heat and Damp which accompany Cyclones."

19. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

Harveian Society, 8 p.m. Mr. W. F. Teevan, "On Dribbling of the Urine: its Diagnosis and Treatment."

20. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Medical Microscopical Society, 8 p.m. Dr. Goodhart, "On Buccal Psoriasis or Ichthyosis of Tongue."

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, November 7.*

### BIRTHS.

Births of Boys, 1331; Girls, 1248; Total, 2579.
Average of 10 corresponding years 1864-73, 2218·0.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 751 | 694 | 1445 |
| Average of the ten years 1864-73 | 742·3 | 706·7 | 1449·0 |
| Average corrected to increased population | ... | ... | 1594 |
| Deaths of people aged 80 and upwards | ... | ... | 47 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 1 | 9 | ... | 2 | ... | 3 | 1 | 7 |
| North ... ... | 751729 | ... | 1 | 25 | 4 | 4 | 3 | 9 | 2 | 6 |
| Central ... | 334369 | ... | 1 | 12 | 1 | 1 | ... | 2 | 2 | 2 |
| East ... ... | 639111 | ... | 5 | 39 | ... | 5 | 1 | 1 | 4 | 5 |
| South ... ... | 967692 | ... | 2 | 22 | 5 | 8 | 4 | 6 | 1 | 7 |
| Total ... ... | 3254260 | ... | 10 | 107 | 10 | 20 | 8 | 21 | 10 | 27 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 30·027 in. |
| Mean temperature | 49·5° |
| Highest point of thermometer | 62·6° |
| Lowest point of thermometer | 35·0° |
| Mean dew-point temperature | 47·0° |
| General direction of wind | Variable |
| Whole amount of rain in the week | 0·00 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 7, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Nov. 7. | Deaths Registered during the week ending Nov. 7. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2579 | 1445 | 62·6 | 35·0 | 49·5 | 9·72 | 0·00 | 0·00 |
| Portsmouth ... | 120436 | 26·8 | 81 | 40 | ... | ... | ... | ... | 0·07 | 0·18 |
| Norwich ... ... | 82257 | 11·0 | 43 | 31 | 53·8 | 41·0 | 48·3 | 9·05 | 0·00 | 0·00 |
| Bristol ... ... | 192889 | 43·3 | 166 | 82 | 60·2 | 35·7 | 48·7 | 9·28 | 0·10 | 0·25 |
| Wolverhampton ... | 70896 | 20·9 | 56 | 27 | 56·7 | 39·5 | 48·1 | 8·94 | 0·28 | 0·71 |
| Birmingham ... | 360892 | 43·0 | 272 | 196 | 57·6 | 40·3 | 48·5 | 9·16 | 0·12 | 0·30 |
| Leicester ... ... | 106202 | 33·2 | 80 | 47 | 56·5 | 37·2 | 48·0 | 8·89 | 0·18 | 0·46 |
| Nottingham ... | 90894 | 45·5 | 70 | 35 | 58·1 | 37·3 | 49·0 | 9·44 | 0·20 | 0·51 |
| Liverpool ... ... | 510640 | 98·0 | 430 | 339 | 59·7 | 38·6 | 49·1 | 9·50 | 0·31 | 0·79 |
| Manchester ... | 355339 | 82·8 | 319 | 170 | 60·8 | 37·0 | 49·4 | 9·66 | 0·32 | 0·81 |
| Salford ... ... | 133068 | 25·7 | 111 | 63 | 60·2 | 35·8 | 49·0 | 9·44 | 0·27 | 0·69 |
| Oldham ... ... | 86281 | 18·5 | 61 | 35 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 165 | 81 | 58·5 | 42·9 | 49·5 | 9·72 | 0·24 | 0·61 |
| Leeds ... ... | 278798 | 12·9 | 272 | 155 | 59·0 | 41·0 | 49·1 | 9·50 | 0·17 | 0·43 |
| Sheffield ... ... | 261029 | 13·3 | 251 | 129 | 63·0 | 37·0 | 49·9 | 9·94 | 0·11 | 0·28 |
| Hull ... ... ... | 130996 | 36·0 | 124 | 75 | 57·0 | 37·0 | 48·0 | 8·89 | 0·17 | 0·43 |
| Sunderland ... | 104378 | 31·6 | 86 | 54 | 68·0 | 40·0 | 53·5 | 11·95 | 0·28 | 0·71 |
| Newcastle-on-Tyne | 135437 | 25·2 | 130 | 72 | 56·0 | 36·0 | 48·3 | 9·05 | 0·62 | 1·57 |
| Edinburgh ... ... | 211691 | 47·8 | 135 | 90 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 355 | 347 | ... | ... | ... | ... | ... | ... |
| Dublin ... ... | 314666 | 31·3 | 171 | 156 | 60·4 | 31·6 | 48·0 | 8·89 | 0·53 | 1·35 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5957 | 3669 | 68·0 | 31·6 | 49·1 | 9·50 | 0·22 | 0·56 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·03 in. The lowest was 29·90 in. on Monday afternoon, and the highest 30·33 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## A LECTURE ON BULBAR OR GLOSSO-LABIAL PARALYSIS AND ITS RELATION TO PROGRESSIVE MUSCULAR ATROPHY.(a)

By Professor KUSSMAUL, of Freiburg.

THE morbid picture which progressive bulbar paralysis presents, is one which, if once seen, is never likely to be forgotten. Considering how sharply defined are the characters of this disease, it is very remarkable that it should only have been first discovered and described by Duchenne in the year 1860. This is not to be accounted for by its great rarity. More than fifty cases of it have been reported already, and I have myself been consulted five times in eight years by persons suffering from it. It is quite certain that the affection had been observed by others before Duchenne—for instance, by Trousseau and Duménil,—but he was the first who referred its symptoms to their anatomical cause, and comprehended the disease as a whole instead of laying undue weight on certain symptoms to the neglect of the rest. To-day the group of symptoms of progressive paralysis of articulation and deglutition, such as Duchenne described it, is universally recognised as a typical form of disease and as a special variety of paralysis. The French have hitherto adopted for it Trousseau's name, "*paralysie labio-glosso laryngée*," or more shortly "*paralysie glosso laryngée progressive*"; while we in Germany have followed Wachsmuth in giving it the more appropriate title of "progressive bulbar paralysis."(b)

Let us now consider more closely what light is thrown on the symptoms and course of this remarkable disease by the numerous observations which have been made on it since 1860. The persons who are attacked by progressive bulbar paralysis in its typical primary form have, with rare exceptions, passed their thirtieth year, and the predisposition to the disease appears to increase with advancing age. If we exclude two cases which differ from the ordinary form in important particulars, out of 43 patients whose age is given only 1 was between 20 and 29 years of age; from 30 to 39 there were 6 patients; from 40 to 49, 8; from 50 to 59, 11; from 60 to 69, 14; and 3 from 70 to 72. Of 53 persons whose sex was noted, 34 were men and 19 women. The disease has been observed amongst the highest and lowest classes of society, and seems to be, if anything, rather more common among well-to-do people than among the poor. As yet it is not known to have been hereditary in any instance. In most of the cases the exciting cause was obscure, and, as a rule, the patients had been previously strong and healthy. Catching cold and mental disturbances were the most frequent assigned causes of its origin. One case appeared to have followed a fall on the head, and another excessive tobacco-smoking, and the disease was often found associated with syphilis. In one case it certainly appears to have been due to severe muscular over-exertion.

The symptoms of the disease at its commencement are generally so trifling that the patients do not seek advice for them, and they have no suspicion of the fearful fate which awaits them in the future. What is first noticed is a slight alteration in the speech, which is soon followed or simultaneously accompanied by slight difficulty in swallowing. The general health of the patients remains excellent; they only find that their tongue feels heavier, and that they must exert more force to move it in speaking or eating, while it soon gets fatigued in doing either. Certain letters, especially R, become peculiarly difficult to pronounce. The patients' friends soon find that there is an alteration in their speech, and that it is not so distinct as it formerly was. The rule is for the tongue to be first attacked, and it is not till later that the lips, the larynx, the gullet, and the palate suffer in their turn. It is rare to find exceptions to this rule; yet Duchenne described one of his earliest cases as beginning by paralysis of the palate and lips. Duchenne speaks of the early affection of the lips as occasionally giving rise to a feeling of slight stiffness in them, as if from cold. When deglutition becomes implicated, most distressing salivation usually soon follows, but in exceptional cases the salivation has preceded the impairment of swallowing, so that that symptom represented something more than a simple retention of mucus and saliva in the mouth, in consequence of dysphagia. In rare cases the trifling symptoms of paralysis which we have described remain for months, and even for years, unaltered; and then after some violent chill, or without any assignable cause, become rapidly worse. It is only exceptionally that the premonitory symptoms are first noticed during recovery from any sort of fever. It has been asserted that the disease may begin suddenly, in the form of an apoplectic attack; and Dr. Wilks has related several instances of the kind, some of which were accompanied with hemiplegia and paraplegia, and in which the symptoms of bulbar paralysis persisted after those of hemiplegia had disappeared. These cases, however, differ from those of true bulbar paralysis in the paralytic symptoms being complete from the first, and not of a progressive character. One, however, of my patients was attacked by the disease in a way which might be called "apoplectiform." He was a Catholic priest, aged sixty, of regular habits, and who had always enjoyed good health previously. After suffering from pains in the back for eight days without any assignable cause for them, he one day found, while he was preaching, that his mouth was somewhat drawn, and that speaking was difficult, but he was not prevented from finishing his sermon. He did not feel giddy at the time nor at any after period; but from that time forward (March, 1868) he always had a feeling of weight in the tongue. After he had suffered many weeks from catarrh, severe cough, and abundant expectoration, which only very gradually improved, there was a rapid exacerbation of the paralytic symptoms. He stammered when he spoke, and had great difficulty in swallowing. Both arms became weak, and at night he had attacks of prostration which almost amounted to total unconsciousness.

As early as September, 1868, this patient presented the mournful picture of a well-marked bulbar paralysis, with paralysis of both arms and atrophy of the small muscles of the hand. He died on September 18, 1869. There were no naked-eye appearances of an apoplectic clot to be found post-mortem either in the medulla oblongata or in the pons, but the anterior and lateral white and grey regions of the spinal cord were the seat of a degenerative myelitis. The medulla oblongata was not examined microscopically.

Occasionally the initial symptoms of bulbar paralysis may consist of headache, of pains and a feeling of constriction in the neck, and of tightness in the chest, which may probably be considered as irritative phenomena due to hyperæmia of the medulla oblongata.

In the further development of the disease the order in which the power of pronouncing the various letters of the alphabet is lost is not the same in all cases, since it depends on the order in which the various provinces of muscles in the territory of articulation become paralysed. If the movements of the lips are the first to suffer,(c) O and U will be the first letters that the patient cannot articulate, then I and and E, but A remains generally as long as the patient can speak at all. Where the tongue loses the power of raising itself from the floor of the mouth before the lips are paralysed, it is the letter I which first becomes impossible to pronounce. The loss of the movements of the tongue first robs the patient of R and Sch, then of S, L, K, G, T, and later of D and N. The paralysis of the lips at first makes the consonants P and F difficult to pronounce, then B and M, and lastly V. The paralysis of the palate not only makes the speech nasal, but also, as soon as it has reached such a degree that the quantity of air which escapes through the nose is excessive, prevents the formation of the labials B and P, which now sound like "Me," "We," or "Fe," because, as Duchenne has remarked, the force of the stream of air which must pass through the mouth and lips for their production is insufficient to overcome the contractile tension of the lips. The correctness of Duchenne's view is shown by the fact that if the lips still retain the power of contraction these patients can say B and P when their nose is held. If the speech becomes entirely lost, nothing remains at last but the

(a) This lecture is partly a translation and partly an abstract of No. 54 in Volkmann's admirable "Sammlung Klinischer Vorträge."

(b) Throughout this lecture the term bulbar paralysis will be used instead of the ordinary English one of glosso-labial paralysis. The German name is not only shorter, but has also the advantage of directing attention to the pathological seat of the disease in the nervous system.

(c) The letters here given are as they stand in the original, according to the German pronunciation: U therefore corresponds to Ooh in English, I to e, and E to a. A sounds like ah, and P, B, G, and T like pay, bay, gay, and tay.

power of making grunting sounds, and even this may become ultimately impossible. Just as with the disturbances of speech, so with the difficulties of swallowing, the phenomena vary according to the time at which the groups of muscles on which they depend are implicated, and the intensity of their paralysis. If the lips cannot be completely closed, the saliva keeps dripping over the lips and chin; and as long as their arms are strong enough, the patients continually hold their handkerchief before their mouth to catch it. The food, too, falls out of their mouth, partly because the lips cannot be completely closed and partly because the tongue is paralysed. The more the tongue loses its power to assist the movements of chewing by mixing the saliva with the food, and by bringing the food beneath the teeth and within the grasp of the muscles of the palate, the more difficult the first act of deglutition becomes. Even without the buccinators being paralysed the food gets caught between the teeth and the cheeks if the tongue can no longer push it out. In the same way bits of meat remain in the front of the mouth and fall out, even though the lips are still tolerably strong, because the patient in the intensity of his hunger puts fresh morsels into his mouth before the old ones are carried back into the pharynx. Where the paralysis of the tongue precedes paralysis of the larynx by a considerable interval of time, the patients take to articles of food which are pappy and liquid, since their passage through the mouth into the throat is more easy than that of solid ones. But in those cases where the proper mechanism for closing the larynx suffers early, fluids more easily enter the larynx than solids do, and the patients are afraid to attempt to drink in consequence of the attacks of suffocation and coughing which invariably follow. If the posterior nares cannot be closed, both the food and the liquids return through the nose; and if, as happened in a case of Trousseau's, the lower constrictor of the pharynx is still able to contract, they may be shot out through the nose with convulsive force, and, if the lips are paralysed at the same time, through the mouth, and very little food then reaches the œsophagus.

The saliva is sometimes so abundant that its increase cannot be explained by its not being swallowed. In a patient of Schultz's the quantity secreted was six or eight times more than the normal, so that this phenomenon cannot be explained by the dysphagia alone. It is probably of a so-called paralytic nature, and of the kind which Claude Bernard observed in animals in which the chorda tympani of the facial nerve had been divided a long time before.

In addition to the difficulty of speaking, the dysphagia, and the salivation which are due to the different paralyses already spoken of, the symptoms of a paralytic aphonia generally set in early, and help to impair the speech, and finally to annihilate it. At first the patients are obliged to employ more effort than formerly to put their vocal cords into the right position for the formation of sounds and to set them in vibration, and they become much fatigued in consequence. In a later stage the laryngoscope shows the existence of various degrees of paralysis of the vocal cords.

The paralytic aphonia is soon followed by a series of paralytic disturbances of expectoration, which are certainly of a bronchial nature. At a time when inspiration is still carried on vigorously by the diaphragm and intercostal muscles, and when the expiratory muscles of the abdomen also contract in reflex attacks of coughing excited by the entrance of liquids into the larynx, the patients are already unable to sneeze or cough voluntarily; and this inability must, most probably, be referred to paralysis of the bronchial muscles. Lastly, certain attacks of dyspnœa and syncope which do not depend on mere mechanical obstructions of the breathing by saliva or mucus in the air-passages must be set down as symptoms due to paralysis of the vagus. They generally occur at an advanced period of the disease, especially after exercise, and also at night when the patient is in bed, and they sometimes are the cause of his sudden death. If we now allude to a few changes of expression due to the paralysis of the lips, we shall have enumerated the most important disturbances of those functions which are supplied by nerves from the medulla that are met with in this disease. Where the amount of paralysis of the lips becomes great enough, the mouth becomes drawn out on either side by the action of the antagonistic muscles, and the naso-labial furrow becomes deepened, so that the face has the expression of crying. Still later the mouth hangs loosely down, the under lip is everted, and the saliva keeps flowing continually down over it. Sometimes the muscles of the chin are also partly paralysed; but it is very seldom that the muscles in the upper part of the face which are supplied by the facial nerve are affected. Occasionally the motor portion of the fifth nerve is attacked, and then the movements of mastication are impaired.

Paralysis of speech and deglutition, although of long duration, is not always accompanied by visible atrophy of the tongue and lips, and these parts often retain their original volume to the end of life. Most commonly, however, the tongue becomes atrophied, and less often the lips. As the tongue atrophies it becomes wrinkled and withered, and fills the floor of the mouth to a less and less extent, while it becomes the seat of fibrillary twitchings. The first of its movements which are lost are those which render the dorsum hollow, those which bend its tip upwards and backwards, and those which move it sideways, and which raise it towards the palate. The power of protruding it is the last to fail. The soft palate and the uvula only exceptionally deviate from their normal position, and it is only when atrophy has become extreme that the tongue and lips cease to respond to an induced electric current.

We can easily understand how it is that progressive bulbar paralysis, although unattended by fever or by any impairment of the patient's digestion until towards the end of his illness, should gradually bring him into a state of great emaciation with enormous loss of muscular power, so that he is obliged to pass his time either in bed or in an armchair, even without the actual occurrence of paralysis of the muscles of the limbs and trunk. The weakness that he suffers is simply the result of inanition, for his appetite cannot be satisfied, and he suffers the tortures of Tantalus. As a rule, however, the general wasting of the body is accompanied by actual paralyses, either of limited groups of muscles or of a large number, either with or without atrophy of some of them; and these paralyses indicate that the central process has extended partly to other motor regions of the medulla oblongata, and partly to the spinal cord.

The earliest indication of this extension is often a gradual wasting of the ball of the thumb and of the small muscles of the fingers of one or both hands, just as in progressive muscular atrophy, and due to implication of the cervical portion of the cord. Later on it is not uncommon for the muscles of the head and neck to become paralysed, so that the patient can no longer turn the head, and it sinks forward on to the chest. Just as bulbar paralysis often begins with pains in the neck and head, so the paralyses of the extremities (all of which may finally be involved) are sometimes accompanied by pains in the back and loins, and even by periodical pains of great severity in the limbs themselves. It is remarkable that the sphincter ani and the muscles of the bladder are scarcely ever involved in this disease. The condition which ensues when bulbar paralysis is combined with extensive paralysis of muscles supplied by spinal nerves is one of the most frightful that occurs in any disease. The head, the trunk, and the extremities are motionless, and only the look reveals the inner workings of the soul which is condemned to contemplate the hopeless misery of its condition in silent isolation, and to endure it without an effort to escape it.

It is surprising that a disease which seems so likely to give rise to mental depression should so rarely lead to actual disturbance of the intellect. The symptom most frequently observed is delirium in its later stages. The urine has been often examined without success for sugar and albumen. It is only exceptionally that the sensibility of the fingers and hands has been found slightly diminished.

The course of the disease is always chronic, and extends over one or several years. It is, as Duchenne at the very first remarked, an eminently *progressive* disease—that is to say, it has a natural tendency, when once it has begun, to go on steadily to a fatal termination, and death usually occurs in from one to three years. As yet no case of permanent recovery has been reported. The patients sometimes die of suffocation, either by the entrance of food into the larynx or from inability to expectorate the mucus from their bronchi, or else they succumb to the attacks of apnœa and syncope previously mentioned.

Before terminating this lecture, and before speaking of the treatment of bulbar paralysis, I wish briefly to discuss the pathological changes which give rise to the symptoms we have been considering, and especially to compare them with those found in progressive muscular atrophy, and to point out the close resemblance between the two diseases. It is only quite recently that we have become acquainted with the micro-

scopical appearances of the parts of the nervous system affected either in bulbar paralysis or progressive muscular atrophy; and naked-eye appearances, and even the consistence of the parts, are of little value in estimating morbid changes in the medulla and spinal cord. The medulla and the olivary bodies have often a normal structure when they feel unusually hard; and, even when atrophy and hardness of these parts can be made out without the aid of the microscope, we cannot form an accurate estimate of the precise portions affected in an organ like the medulla oblongata, which is so complicated, and made up of such a number of provinces with entirely different functions. It is only within the last four or five years that the necessary microscopical examination has been undertaken in the case of bulbar paralysis by Charcot, Duchenne, Leyden, and others. In all the cases degeneration of the motor nuclei in the floor of the fourth ventricle and of their ganglion-cells has been discovered, the nuclei of the hypoglossal nerves being the most affected, and in a lesser degree the nuclei of the spinal accessory, pneumogastric, and facial nerves. Duchenne has also found the nucleus of the motor portion of the fifth pair degenerated. Those nuclei, on the other hand, which are placed more externally, and correspond to the posterior cornua of the spinal cord—viz., the auditory nucleus, and the so-called sensory nucleus of the fifth nerve, as well as the nucleus of the glosso-pharyngeus—are usually unaffected. Of the other parts of the medulla oblongata, the olivary bodies are sometimes diseased, but the restiform bodies which start from the posterior columns of the spinal cord have been found healthy in all cases. Two forms of degeneration occur—an atrophy of the ganglion-cells, accompanied with the formation in them of a yellowish or brownish pigment; and a sclerosing myelitis, with increase of the neuroglia. Both forms occur also to a greater or less extent in all cases in the anterior cornua and anterior and lateral columns of the spinal cord. The nerve-trunks which take origin in the diseased regions are also atrophied, the roots of the hypoglossal being the most so.

The muscles in bulbar paralysis—for example, those of the lips, tongue, and extremities—are sometimes only diminished in size in a degree proportioned to the general wasting of the patient, and sometimes are markedly atrophied. It is a very important fact, especially in the relation of this disease to progressive muscular atrophy, that, in the same individual, of those muscles which were paralysed during life, some may be found, on microscopic examination after death, quite intact, while others are degenerated to the most various extent and degree. Actual atrophy seldom causes the total disappearance of a muscle, and, as a rule, only separate bundles and fibres are attacked in an irregular manner. Three forms of muscular atrophy are found in bulbar paralysis—simple diminution in the size of the muscle, fatty degeneration, and waxy degeneration; but all three may occur side by side.

If we now turn to progressive muscular atrophy, we find that there is a general agreement amongst observers that the latter is dependent on atrophy of the grey substance of the spinal cord, and more particularly of the large multicaudate cells of the anterior cornua, which Charcot and his pupils have shown to have a trophic function and to be similarly degenerated in other diseases, such as infantile and other forms of paralysis which lead to muscular atrophy. Degenerative processes exactly limited to the *white* substance of the cord have not been found in any accurately investigated case to give rise to atrophy of muscles. The pathological changes in the cord in muscular atrophy are in no way peculiar to that disease. We meet with the ordinary grey degeneration which occurs so frequently in locomotor ataxy as well as in disseminated sclerosis of the brain and spinal cord. The chronic indurating myelitis is another common condition, just as it is in the so-called spinal sclerosis; and, lastly, Dr. Lockhart Clarke has repeatedly found that peculiar form of softening which he has described as "granular disintegration"; but this has also been found in tetanus, chorea, and other nervous affections. It thus appears that, for the development of the disease called progressive muscular atrophy, there are two events necessary—first, that the great multicaudate ganglion-cells of the anterior cornua shall disappear; and secondly, that their disappearance shall travel in a definite manner over the anterior cornua. The best hypothesis to explain the actual phenomena of this disease is Charcot's. He supposes that the degenerative processes tend to creep among the ganglion-cells of the anterior cornua, so as to destroy some cells earlier, some later, some cells more, and some less completely, while, at the same time, other individual cells and whole groups of cells remain unaffected by the disease. Thus we see why single muscular bundles and groups of muscles are irregularly attacked. If we now compare bulbar paralysis with progressive muscular atrophy, we find that they are both dependent on manifold degenerative processes of the same anatomical characters in each, and which agree with one another in their tendency, on the one hand, to spread gradually over the anterior grey columns of the spinal cord and the nervous nuclei of the medulla oblongata which correspond to them, and, on the other hand, to destroy the ganglion-cells embedded in these parts, either singly or in groups, and in an irregular manner. According as such a process at first attacks a higher or a lower region, the medulla oblongata or the cervical or lumbar enlargements of the cord, the results are different, yet without losing their typical character. I consider, therefore, that the essential difference between the two diseases is in the part attacked by the degenerative process. In favour of this view, the following additional arguments may be adduced:—1. Both bulbar paralysis and muscular atrophy are remarkably often found combined, having either commenced simultaneously or been superadded on one another. 2. Bulbar paralysis plays an important part in the final stage of progressive muscular atrophy. It has also the most pronounced tendency to spread to the spinal cord after primarily affecting the medulla, and so to give rise to the symptoms of progressive muscular atrophy in addition to its own. 3. In neither disease is it possible during life to determine the extent of alteration in the affected muscles; for example, a tongue or trunk muscle, which is apparently healthy, may be the seat of extensive changes of a morbid nature. Lastly, the gradual and occasionally rapid way in which the two diseases develope their tendency to steady progress, with only an exceptional amendment or temporary arrest, are remarkable points of similarity. The greater danger of bulbar paralysis, and its shorter duration, are easily explained by the close proximity of the diseased parts to the "centrum vitæ."

We are unfortunately unable at present to give a satisfactory physiological explanation on which to found a theory of bulbar paralysis and progressive muscular atrophy, for in many cases the amounts of paralysis and of atrophy of muscles are not proportional to one another. On the other hand, there are numerous anatomical proofs that the muscles are trophically dependent on the ganglion-cells of the medulla, yet the disappearance of the ganglion-cells does not stand in direct relation in all cases to the atrophy of muscles.

Perhaps the most plausible theory is the one which Duchenne and Joffroy have propounded. They consider that the ganglion-cells in the anterior cornua of the spinal cord and the motor nuclei of the medulla are really of two kinds—motor and trophic; and so, where the progressive muscular atrophy appears with its typical characters, they believe that the lesion is limited to the trophic cells. On the other hand, where, as in cases of progressive paralysis of the tongue, the paralysis runs its course without atrophy of the muscles, the lesion is one of the motor cells alone. It is easier to criticise this theory than to propose a better one.

An attempt has been made to enlarge the scheme of progressive bulbar paralysis into the more comprehensive one of progressive paralysis of the cerebral nerves (Benedikt). This arose from the plausible idea that other more anteriorly placed motor nuclei might be attacked by the extension upwards of similar pathological changes; so that, for example, paralyses of branches of the third pair of cerebral nerves might be the first sign of the bulbar paralysis, or might be superadded thereto. However, a number of cases published by Benedikt, of Vienna, which he supposed to be due to some similar process, are not of a reliable nature. Muscular atrophy was present in only one of seventeen cases, and in none was there an opportunity for post-mortem examination; while five cases were said to have been cured by galvanism.

The difficulty of making the diagnosis during life of a combination of bulbar paralysis with paralysis and other affections of the cerebral nerves, is shown in one or two published instances, in which the symptoms ascribed to a bulbar paralysis were produced by tumours within the skull, by which nerves had been compressed. One was a case reported by Balz, in which an enchondroma of the base of the skull produced hæmorrhage into the medulla oblongata and compression of numerous nerve-roots arising from it. This was considered

during life as an ordinary bulbar paralysis, but it was afterwards discovered that the disease had begun with neuralgic pains in one fifth nerve and clonic spasms in the regions supplied by the facial and hypoglossal nerves.

Voisin has also recorded a case of epithelioma of the arachnoid in which nearly all the bulbar nerves were compressed, and there was the appearance of a bulbar paralysis. Here, however, the paralysis of the muscles of speech and deglutition began *suddenly;* there was loss of taste and hearing, and respiration was impaired. Syphilis appears able to give rise to various forms of bulbar paralysis, which yield to iodide of potassium, and for which Dr. Silver has proposed the name of "retrogressive," to distinguish them from the "progressive" forms. Hysteria also gives rise in some cases to symptoms somewhat similar to progressive bulbar paralysis; and, lastly, paralyses of deglutition and articulation are remarkably frequent phenomena in different degrees in the most various forms of acute and chronic nervous affections. We have, in fact, only a right to speak of "progressive bulbar paralysis" when the details of the disease correspond to that peculiar picture of it which Duchenne and Trousseau first painted in so masterly a manner. The treatment is as yet not as successful as we hope it may become at some future time, when the disease is more early recognised, and therefore can be submitted to the action of remedies before the mischief has gone too far. The first thing to be done is to remove the patient as soon as possible from all injurious influences to which he may be exposed, either from his occupation or habits of life. I should treat pains in the head and neck at an early period, and when there was no suspicion of myelitis, with dry cupping to the nape; and the douche-bath, and even the shower-bath, are worthy of a trial, as they have been found useful in locomotor ataxy and chronic diffuse myelitis. Soft food should be given, and it should be finely minced to make it more easy to chew and swallow. Nitrate of silver is the most likely drug to be of service if given early, and gold salts should also be tried. I have seen no good results from the iodide of iron. Phosphorus, strychnia, and bromide of potassium are useless, if not injurious.

Benefit may be obtained from the local faradisation of the palate, tongue, and hypoglossal nerves, but galvanisation by means of a strong continuous current is more effectual. It should be passed in both directions, at first through the neck, and later on through the whole spinal column, and also from the neck and the hypoglossal nerve to the tongue or to other paralysed parts. By these means considerable temporary improvement has been obtained, which soon, however, ceases when the galvanism is omitted. Lastly, if galvanisation cannot moderate the difficulty of swallowing to a degree compatible with life, the patient must be fed with an œsophageal sound.

## ORIGINAL COMMUNICATIONS.

REMARKS ON THE

# TREATMENT OF INFANTILE CONVULSIONS OF REFLEX ORIGIN.

ILLUSTRATED BY A CASE IN WHICH A CHILD WAS RESTORED FROM A STATE OF SUSPENDED ANIMATION BY THE HYPODERMIC INJECTION OF MORPHIA.

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Henry J. B., a handsome, sprightly, blue-eyed American boy, completed his seventh year on January 28, 1874,—rather more, therefore, than seven months before September 20, the date of the attack about to be described. I became acquainted with him in February, 1874, when I attended him for a slight catarrhal affection. During that and the following month I saw him frequently, not, however, as a patient, but from my being during that period in attendance on his father, then passing through a very formidable attack of pneumonia. At that time the child did not seem robust; he was evidently of a highly nervous and excitable temperament; still, he had every indication of being playful, joyous, and in good health. At that time, from conversations with his mother, I took particular notice of his physical and psychical state. She was under the impression that his mental were very much in excess of his bodily powers. Under that conviction she had consulted a physician on the subject, and by his advice the boy's studies had been judiciously retarded. The mother, in mentioning to me these circumstances, likewise gave me his whole medical history from his birth. It contained several noteworthy facts. Twice he was supposed to have been very near death—once from scarlatina, and once from dysentery. His mother mentioned another fact which also remained on my mind—viz., that a few months before I first saw him he had been attended by Dr. J. B. Allan, of London, in a slight illness, during which he had passed a round worm after taking a dose of castor oil. His recoveries from both scarlatina and dysentery were complete, there being in neither case lingering convalescence nor sequelæ.

I had not seen H. J. B. since March, nor had I heard anything of him since that date (when the family left Paris) till Sunday, September 20, when I was summoned in haste to his assistance. The message reached my house about 2 p.m. I was absent; but was soon found. When I arrived, at twenty minutes to three o'clock, I found that three physicians, Drs. Belvin, Krishaber, and Lancereaux, had reached the patient before me. As I passed through an ante-room I was told by a servant that the child was already dead; and, as I entered the chamber where the patient lay, the distracted mother rushed towards me, imploring me to declare the truth by saying whether her son were dead or not dead. I replied, "He has ceased to breathe." This was the exact truth; he lay apparently dead.

Before proceeding with the sequel of the history, it is necessary to give an account of the case from its commencement up to my arrival. This account I drew up on the night of September 20, when everything told me by the parents, the nurse, and my colleagues was fresh in my mind. I have since collated my account with a memorandum written by Dr. Lancereaux, also on the night of September 20, so that I am equally certain of the minute accuracy of the account of that part of the case which I did not see, as of that in which I was a participator.

Between 8 and 9 a.m. the child had breakfasted very much as usual, perhaps with a little less than his ordinary appetite, a circumstance naturally attributed to his not having quite slept off the fatigue of travelling. He had arrived in Paris on the previous day from Geneva, having performed the journey without a break. About eleven o'clock, he walked with his nurse from their residence in the Place Vendôme to the neighbouring church of Saint Roch. During the service he several times complained to his nurse of feeling a pain in the left side, under the false ribs. This complaint was not urgent; it had also been made several times during the eight or ten previous days, and had never seemed to be more than a transient discomfort. On his way home from church the child seemed well and cheerful. When he sat down to dinner, at half-past one, with his little sister and nurse, there was nothing unusual in his appearance or manner.

He began to eat the meat and potatoes placed before him. The nurse saw him chew and swallow the first few mouthfuls in a perfectly natural, and in quite his usual way. When looking at him she observed that a mouthful was either imperfectly received by the mouth, or, after being received, fell from it. The potatoes fell down on his plate—more, as it appeared, through carelessness on the part of the child than from any other cause. At the same time that this was attracting the attention of the nurse, she observed that his head turned towards the window, and that his eyes became fixed, as if eagerly looking at a particular object. At first—but only for an instant—she fancied that something at the window had suddenly arrested his attention. In a minute, or perhaps even within less than a minute, she observed that his eyeballs were in spasmodic movement, the muscles of the face twitching, the neck rigid, and the head unnaturally bent backwards. In another minute or two there was a clenched state of the jaws, and a foamy sanguinolent flow from the dental interstices. Ere five minutes had elapsed from the time when first the eyes moved spasmodically and the neck became rigid, there existed formidable epileptiform convulsions with suffocative paroxysm. Consternation and anguish seized the family. The child was undressed, and placed in a hot bath. A messenger was sent to fetch me, and in quick succession other messengers were despatched in search of other physicians. Drs. Belvin and Krishaber arrived soon after two o'clock, so that very little time elapsed between the seizure and the

institution of suitable treatment. At about a quarter-past two, Drs. Belvin and Krishaber were joined by Dr. Lancereaux. He found the patient lying undressed on a bed, near a half-open casement window; the legs were wrapped up in hot moist flannel. As Dr. Lancereaux entered, Dr. Belvin was endeavouring to separate the spasmodically clenched jaws: the extreme rigidity of the muscular contraction rendered it impossible to open the mouth. Seeing that the neck was turgid, that there were no convulsive movements, that the paleness of death was on the face, and that respiration had ceased, Dr. Lancereaux's first, though fleeting, impression was that the child was either on the very brink of death or had already died from diphtheria. He immediately, however, took another view of the case when he was told that the child had breakfasted, walked to and from church, and had been sitting at dinner in apparently his usual health, when suddenly attacked with convulsions. He came to the conclusion that the convulsions were of a reflex character. The pupils were dilated when Dr. Lancereaux examined them, a minute or two after his arrival. The face and legs were slapped. Cold water was dashed over the face. All the usual means were tried to make the child inspire, particularly excitation of the fifth pair of nerves. Artificial respiration then commenced, and was perseveringly continued. At the end of a period estimated to be about ten minutes or a quarter of an hour, respiration was re-established; the death-like paleness disappeared. Just as these favourable signs had given some hope of recovery a new convulsive attack threw the patient back into the former death-like state. Artificial respiration was again practised, and again the result was highly beneficial. Again, also, a new convulsive attack supervened. It was in this crisis of hopes and fears that Dr. Lancereaux proposed the hypodermic injection of the hydrochlorate of morphia. The proposal was accepted by Drs. Belvin and Krishaber. As the pharmacy of M. Gallois is immediately opposite the house in which the scene I am now describing occurred, two or three minutes sufficed to procure the solution and injecting apparatus. About seven milligrammes of the hydrochlorate of morphia were injected into the cellular tissue of the thigh. In a minute or two after the injection the child became more violently convulsed than he had yet been; the diaphragm, in particular, became the seat of most formidable spasms. These severe convulsions were followed by a return to the former death-like state. Now it was that I arrived.

I have already mentioned that when I entered—about twenty minutes to three—the mother seemed to be in doubt as to whether her son were dead or living. Just as I approached the bed on which he lay, apparently dead, two of the physicians were resuming the performance of artificial respiration, and another was arranging his tracheotomy instruments. I was quickly informed by my colleagues what had occurred prior to and since their arrival. Whilst our consultation proceeded, the performance of artificial respiration was unremittingly continued. For a minute or two after my arrival, the patient looked exactly like a child which had succumbed to diphtheritic suffocation. The face was bluish; the throat was turgid; there was no pulse; and, save the artificial movements of respiration, there were no movements. Very soon, however, the muscles of the neck manifested slight spasmodic twitchings, and the eyeballs were several times seen to veer rapidly about and upwards. No pulse could be felt; then an extremely slight pulsation could be felt over the heart and at the radial artery. There still seemed some hope, and that hope was increased by my declaring my conviction, based on my previous knowledge of the patient, that the convulsions and suspension of the necessary motions of respiration depended upon intestinal tickling by lumbrici. Dr. Lancereaux proposed that an additional dose of the hydrochlorate of morphia should be injected into the cellular tissue, justly remarking at the same time that the probable cause of the failure of the first injection was that the quantity injected fell short of the requirement. We all agreed that there should be a second injection. The quantity of hydrochlorate injected on the second occasion was five or six milligrammes. The total quantity of hydrochlorate of morphia injected was thirteen milligrammes. About a minute before the performance of the second injection, an ounce and a half of turpentine mixed with a little olive oil was, at my suggestion, thrown into the rectum. By exciting the intestinal tract of the pneumogastric nerve, I imagined that by reflex action we might obtain respiratory muscular movements, while at the same time we might possibly get rid of the origin of the evil by causing the supposed offending lumbrici to be expelled. I cannot say whether this measure exercised any beneficial influence on the progress of events. I record the fact of its having been employed, as its omission would render the history incomplete, and also because, under somewhat similar circumstances, I have seen a happy issue of cases to follow, and, as I believe, result from stimulation of the intestinal tract by turpentine.

The terebinthinate enema was not followed by any alvine evacuation; and, indeed, twelve or thirteen hours elapsed after its administration before the child had a stool. In respect of the beneficial effect of the second injection of hydrochlorate of morphia, none of the physicians who were present entertained the slightest doubt. We all felt that it was a physiologico-therapeutical demonstration of very rare and surpassing beauty, although we were not insensible to the probability of the convulsions having to a great extent spontaneously exhausted their violence when the second injection was made. Irrespective of all treatment, such attacks have a natural tendency to cease.

Within less than three minutes from the time at which the second dose of hydrochlorate of morphia was injected, it was evident that there was a gentle heaving of the thoracic walls—a natural play of the diaphragm and abdominal muscles. Air was entering the chest. The blue appearance of the countenance quickly disappeared. The child rapidly passed into a state of profound and very tranquil narcotism; and as he did so, with each inspiration, the lungs became better and better expanded, till, within a very few minutes, the pulse and respiration were fairly good and almost regular. The only interruptions to perfect regularity in the breathing arose from a few slight occasional spasms of the diaphragm during about a quarter of an hour.

A little before four o'clock my three colleagues retired, and I remained with the patient. The excitement of the scene and the extreme tension of anxiety had then subsided; though of course there were still remaining some causes of solicitude. At four o'clock I counted the pulse and respiration: the former was 124, and the latter was 30. The patient was then in a very tranquil and exceedingly profound sleep; the skin was then warm and a little moist. With mother and nurse sitting with me beside the patient, I took out my note-book, and jotted down all they told me of the occurrences of the day before and after the seizure. Till a quarter to five the child made no movement; the respiration was quite regular, easy, and noiseless; the face was slightly flushed. At this time I observed occasional slight twitchings of the muscles of the face and neck. After five o'clock I never noticed the slightest twitch or spasm, and till seven I did not leave the child except for two or three minutes, about six o'clock, when Dr. Lancereaux returned by appointment to renew our consultation. At five o'clock there was no recognisable diminution in the profoundness of the narcotism. The skin was everywhere covered with a profuse sweat; the pulse was 112, and the respiration 28. At half-past five the child scratched his chest and abdomen, and turned half round from his back to his left side. For the next half-hour he did not move in the least degree. At six o'clock, when Dr. Lancereaux entered, he put his cool hand on the chest; the child then quite turned round on his right side, and scratched his chest, abdomen, and arms. He was still asleep, but was evidently passing out of the narcosis. I remained with him till seven, when I left him sleeping. Being obliged to be absent for at least two hours, and as the family could not bear the idea of being without immediate help in the event of some unforeseen emergency arising, Mr. Baillie Cormack took my place. I returned about nine o'clock. The patient was then drowsily awake, and in a state of placid repose. His general condition and very contracted pupils showed that he was still under the powerful influence of the morphia. He asked for water, and complained of thirst, even after taking repeated draughts. As I entered the room on my return, he fixed his eyes on me, and when asked my name, at once mentioned it. He was still very drowsy when Dr. Lancereaux again met me in consultation at ten o'clock. We agreed that probably for the time being all danger was past, and that in a day or two it would be expedient to administer a vermifuge.

In compliance with the request of the child's father and mother, I remained in the house during the night. Soon after eleven o'clock the child complained of headache, became restless, and very talkative. He had a good deal of nausea, and could not be persuaded to take food. The restlessness

and talkativeness went on increasing, and, though his excited incoherent talking was only an exaggeration of his natural manner, it amounted in reality to something closely approaching delirium. He took some beef-tea at midnight, and after it seemed to become a little quieter. I then retired to rest. I was summoned about two o'clock, the nurse having become alarmed at his increasing restlessness and seemingly delirious excitement. I then prescribed five grains of bromide of potassium in syrup of orange, to be given every hour till further orders. He became gradually quiet; but when I saw him at seven in the morning he had not yet fallen asleep. He was still suffering from nausea and excessive perspiration. He had taken altogether four doses—that is, a scruple—of the bromide. He fell asleep about eight o'clock; woke up in two hours refreshed. He passed a good day in bed without nausea or perspiration; he took a fair amount of nutriment in the form of beef-tea thickened with tapioca, milk, and breadberry.

Next morning (Tuesday), at ten o'clock, he took a grain and a half of santonine and three grains of calomel. At noon he passed a lumbricus twelve inches in length, and at one o'clock a second, measuring six inches, along with three somewhat shorter and of less circumference.

The action of the vermifuge powder made the child very sick; but the nausea and sickness passed away almost immediately after he had taken a little hot brandy and water.

On Wednesday, the fourth day after the attack, I found him perfectly restored to health. He was from that day allowed to resume his ordinary routine of diet, exercise, and amusement. In consequence of neuralgic intercostal pains and a somewhat anæmic appearance, he has taken from that date till now (October 24) small daily doses of the British tincture of the chloride of iron, and he has greatly improved in colour under the influence of that medication.

Trousseau, in a clinical lecture on scarlatina, incidentally refers to delirium and other nervous symptoms, irrespective of any toxic or septic cause, being produced by mere tickling. He refers to cases in which persons have caused women to die by tickling the soles of their feet. The victims are described as becoming exhausted, and falling into a state of violent delirium, accompanied by extraordinary nervous phenomena. Trousseau goes on to state that an unnatural excitement of the sensibility due to reflex action is equally liable to occur in the nervous apparatus of organic life. "It is thus," he says, "that we can explain certain formidable symptoms in children, such as delirium, convulsions, paralysis, and loss of vision, caused by the presence of intestinal worms, even when the worms occasion no decided pains in the abdominal viscera. In these cases cerebral hyperæmia plays no part."(a)

In the case of H. J. B. the nervous phenomena were clearly caused by the reflex excitement of the cerebro-spinal system, caused by lumbrici "tickling" the intestinal tract of the pneumogastric nerve.

It is to Marshall Hall that we are mainly indebted for the correct pathology of such and such-like cases. He it was who first demonstrated that paralysis, convulsions, and other nervous affections may be caused by reflex cerebro-spinal irritation. He showed that the irritation of teething, through the trifacial tract, produces spasm of the glottis and general convulsions; and also how similar phenomena may result from irritation of the gastro-intestinal tract, through the pneumogastric nerve, by improper food, overfeeding, diarrhœa, constipation, or the presence of worms.

The case of H. J. B. affords an instructive clinical study in illustration of this subject, both in respect of pathology and practice. The epileptiform convulsions and the suspension of the motions of respiration were clearly caused by lumbrici tickling the intestinal nervous tract. In this case life was all but extinguished by the action on the spinal marrow influencing the motions of respiration through the intercostal and diaphragmatic nerves. Though no crowing or whistling sound was at any time heard, it is very probable that the chink of the glottis was closed for a time by the spasmodic contraction of the constrictor muscle of the larynx, influenced through the inferior—that is, the recurrent—laryngeal nerve, from which nerve, as Dr. John Reid has experimentally proved, the constrictor derives its motor power.(b)

The great clinical interest of this case in respect of treatment belongs to the large amount of hydrochlorate of morphia which was hypodermically injected, and the signal success which attended the practice. Thirteen milligrammes—the fifth part of a British grain—is a large dose of the salt to be injected into the cellular tissue of a boy of seven years of age. For this reason I have been careful to describe with minuteness the exact condition of the patient before, at, and after the hypodermic injection. The result of the experiment made in the case of H. J. B. militates against the opinion of Dr. Charles West, of London, so far as a single case can be allowed to weigh against a conclusion arrived at by one of the most experienced and accomplished physicians of the day. Dr. West says:—"The subcutaneous injection of morphia is an excellent means of obtaining relief from intense pain, which once or twice I have had recourse to. It is, however, hazardous in early childhood, and the few instances in which it is likely to be needed will be met with in surgical rather than in medical practice."(c).

From the case now under consideration, we learn that cases do occur in which a large dose of the hydrochlorate of morphia may be injected into the cellular tissue of a child, apparently with signal benefit, and unquestionably without producing any evil consequences. In the convulsive attacks of children there is always a possibility that recovery is not at all due, or is only due in a very limited degree, to the therapeutic measures which have been adopted. All such attacks cease spontaneously; and it is sometimes exceedingly difficult to say how much in the causation we are to impute to the fit having attained its normal period of termination, and how much to our active measures. Fully realising this difficulty in the clinical study of infantile convulsions of reflex origin, I have been careful to state the facts very minutely and exactly as they occurred, even at the risk of being somewhat tedious, so that my readers may, after weighing the whole of the facts for themselves, accept or reject my interpretation of them.

The great advantages of using the hypodermic method of administering morphia in infantile convulsions are *the certainty and celerity with which anti-spasmodic action is obtained*. There is an almost immediate result; no time is lost. In such a case as that of H. J. B., time is everything. Since the hypodermic injection of the salts of morphia in neuralgia has been in common use, practitioners have become familiar with the fact that relief from the most excruciating neuralgic pain is often obtained within two or three minutes after the injection. In the adult, in cases of spasmodic asthma, quite as decidedly as in neuralgia and other painful affections, the suitability of the drug, and the superiority of the hypodermic mode of administering it, I have for some time past fully recognised, in common with several of my friends. I have never yet employed hypodermic injections of morphia in children. From what I saw in the case of H. J. B., I should not, however, hesitate to employ it in a similar case, and also in some dangerously severe cases of spasmodic croup (the *faux croup* of the French), which occasionally, though not frequently, present themselves. The croupal breathing of false croup is much more alarming to mothers and nurses than to doctors; and as the cases are rare in which life is endangered by a paroxysm of that disease, the cases must be very exceptional in which the hypodermic injection of the hydrochlorate of morphia need be resorted to. I have, however, more than once seen death in false croup from too great duration of the spasmodic paroxysm; and when next a threatening case presents itself I shall probably recommend the hypodermic use of morphia as the most likely means of averting death.

The quantity of hydrochlorate of morphia which can be safely injected into the cellular tissue of children I am unable to state, either from my own experience or from inquiries addressed by me to several friends in large practice. The subject requires the careful clinical study of several competent careful observers possessed of the necessary time and opportunities. The facts as well as the inferences in an experimental inquiry of such a kind must be the result of the reporting-physician's own seeing, and not in any degree—if it can be helped—of the reports and conclusions of mothers, relations, and attendants. A few cases patiently and minutely

(a) Trousseau, "Clinique Médicale de l'Hôtel-Dieu de Paris," tome premier, p. 134, édition 3me. Paris, 1868. See, also, my translation of Trousseau's "Clinical Medicine" for the New Sydenham Society, vol. ii., p. 205. London, 1869.

(b) John Reid, "Physiological, Anatomical, and Pathological Researches. No. IV.: Experimental Investigation into the Functions of the Eighth Pair of Nerves, or the Glosso-Pharyngeal, Pneumogastric, and Spinal Accessory," p. 61 *et seq.* Edinburgh, 1848. Dr. Reid's experiments first appeared in 1838 in the *Edinburgh Medical and Surgical Journal*.

(c) Charles West, "Diseases of Infancy and Childhood," p. 22, sixth edition. London, 1874.

observed and faithfully described will throw more light on this delicate subject than a magazine of statistics gathered indiscriminately from good and bad fields, which, like most medical statistics, are nearly valueless as guides in the hour of emergency at the bedside.

No remedies are more generally useful than opiates in the preventive and curative treatment of the reflex convulsions of dentition, in which class of cases the fits depend upon irritation of the trifacial nerve. It frequently happens, however, that when the child is actually convulsed it cannot swallow. Under such circumstances it is usual to give the opiate in the form of an enema. If the hypodermic method of employing hydrochlorate of morphia can be formulated for safe use in the treatment of convulsions in children, it is obviously preferable on account of its much greater certainty and rapidity of effect.

7, Rue d'Aguesseau, Paris.

## STATISTICS OF SCARLATINA.

By H. COURTENAY FOX.

### No. I.

Anyone who has taken the trouble to observe the weekly and quarterly returns of the births, deaths, and marriages in the metropolis, published by the Registrar-General, must have noticed that for three years there has been a great scarcity of scarlatina in London; but from the beginning of last August a marked increase in the deaths from this disease has occurred; they are steadily rising week by week, and there is reason to believe that another epidemic is at hand. The present is therefore a good time to take up the statistics of this disease and see what we can learn of its history and habits.

We may arrange our inquiry under the following heads:—1. What is the average annual mortality from scarlatina for England and Wales, and for the metropolis? 2. How is it affected by the different seasons? 3. What are the dates of the different epidemics of scarlatina, and is there evidence of regularity in their recurrence? 4. Does this disease appear to be influenced by sex? 5. How is the mortality affected by the different ages?

The data upon which this paper is based are the quarterly and weekly returns for the metropolis (already alluded to), and the annual reports of the Registrar-General of births, deaths, and marriages in England (including Wales). This series commenced in 1839, and now forms a valuable collection of information (that cannot elsewhere be obtained) on the social growth and progress of England, and on the statistics of population and disease.

1. The average annual mortality from scarlatina is a point of much interest. Dividing the number of deaths by the population, and making the usual corrections—for taking the population at the middle of the year as a divisor, for the slightly unequal lengths of years and quarters, and for deaths from causes "not specified,"—we obtain the mortality, using this term in its correct sense of the proportion between the number of deaths and the population. It is, perhaps, unfortunate that prior to the year 1859 no distinction was made in the published returns between scarlatina and diphtheria, and that we are unable to study either disease by itself without limiting ourselves to the comparatively short series of years since 1859. But this need not matter, as I hope to show in a later part of this paper that the mortality from diphtheria alone is so small in comparison with scarlatina that we may practically disregard it.

The average annual mortality from scarlatina and diphtheria for the whole of England, on the series of twenty-four years (1848-71), was 1043 to every million of the inhabitants. That from scarlatina only, for the thirteen years (1859-71), was 923 per million. For the metropolis we have had careful records since the year 1840, from which we obtain an average annual death-rate, from scarlatina and diphtheria, of 1029 per million; whilst the former alone, on an average of thirteen years, has been fatal to 1001 out of each million inhabitants. Scarlatina is, therefore, more fatal in London than in the country at large, in the proportion of 1001 to 923 to each million of the population. It may be interesting to observe some fluctuations in the rates of mortality from this disease. The largest annual death-rate from scarlatina and diphtheria recorded in London occurred in 1848, when the deaths were 2135 per million; but last year (1873) has been an instance of the lowest known death-rate, which amounted only to 278 per million for the united diseases. These figures show what a wide range exists between the opposite extremes.

2. The influence of season upon scarlatina is another point of interest to the physician. We must often have remarked that this form of fever is most apt to come upon our hands some time in the autumn; and this impression is confirmed by a perusal of the statistics of the disease for a long series of years. Thus, we find that the mortality from scarlatina and diphtheria together, on the average of thirty years, in the metropolis is—

| | | | |
|---|---|---|---|
| For the first | quarter, | 211 | per million. |
| „ | second „ | 194 | „ |
| „ | third „ | 269 | „ |
| „ | fourth „ | 360 | „ |

—so that in the last quarter of the year it is not far short of double what it is in April, May, and June.

A comparison of the deaths as they occur in the different weeks of the year confirms this conclusion. The curve made by the total scarlatina deaths of thirty-two years, distributed in their respective weeks, shows a minimum at the beginning of April. The increase is very gradual until August, when it rises rapidly, and reaches its maximum (which it retains for two or three weeks) in October. The decline from October to April is tolerably uniform.

We cannot, therefore, put down *cold* as a likely factor in this disease, nor—considering the short period of incubation and existence of the complaint before death—can we with any likelihood attribute it to *heat*. So far as climatic agency is concerned, these two factors—so important in mortality generally—must be excluded from influencing scarlatina.

3. Scarlatina has prevailed in London as an epidemic seven times since the year 1840, when the Registrar-General's quarterly returns commenced. The proper meaning and limitation of the term "epidemic" presents some difficulties; but it seems most convenient in a study of this kind to regard a fever as epidemic whenever its mortality exceeds its *average* rate (however slight that excess may be), and it is in this sense that we shall use the term. The following are the dates of these successive invasions of scarlatina in London, with their duration roughly expressed in quarters of a year:—

| | | | |
|---|---|---|---|
| 1840 | (the end of an epidemic whose first part is not recorded). | | |
| 1844 . . . | duration | 4 | quarters. |
| 1848-49 . . | „ | 6 | „ (intense). |
| 1852 . . | „ | 4 | „ (very slight). |
| 1854-55 . . | „ | 5 | „ |
| 1858-59 . . | „ | 8 | „ (intense in 1858). |
| 1861-64 . . | „ | 14 | „ (intense in 1863). |
| 1868-70 . . | „ | 11 | „ (intense in 1869, 70). |

I have bracketed together two epidemics occurring in 1852 and 1854-55. They were, indeed, separated by an interval of twelve months, in which scarlatina hardly presented itself; but this was so short a break that it seems better to regard them as parts of one larger epidemic that was arrested by some mysterious cause in 1853, and resumed its course in the following year. Taking this view of it, we have then six epidemics distributed over thirty years (1841-70) at somewhat irregular intervals, but having an average period of recurrence of *five* years. It is a curious circumstance that in the intervals between these successive waves of invasion scarlatina has never actually disappeared from the metropolis; there has not been one week in the whole series without a death from this fever being recorded.

A glance at the above table will convince us that these invasions have steadily increased in duration and in intensity for the long period under review. The first epidemic fully recorded lasted one year; the last one (that we all remember) occupied nearly three years, and in the autumn of 1869 reached a higher death-rate than had ever been recorded. The mortality from scarlatina in the metropolis in that quarter was at the rate of 3400 per annum to every million of the inhabitants. Only once do we know of anything like an approach to this mortality being effected, and this occurred in the autumn quarter of 1848, when the death-rate was at the rate of 3100 per million per annum.

It may be interesting to consider what prospect there is now of our having another invasion of this disease. I took occasion, at the beginning of this paper, to refer to the circumstance that for three years we have enjoyed a very unusual exemption from scarlatina in London, but that from the beginning of last August there has been a decided accession

to the death returns. These will probably rise still higher in October, and then decline during the cold months to prepare for a second and greater ascent in the latter half of next year. The duration and intensity of the next epidemic of scarlatina it is impossible to foretell, but some such course as that sketched out (which is founded on the analogy of former times) may be predicted with some probability.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## UNIVERSITY COLLEGE HOSPITAL.

[For notes of the following case we are indebted to Mr. Godlee, M.S., Surgical Registrar.]

### FRACTURE OF THE OS CALCIS BY MUSCULAR VIOLENCE—TREATMENT BY ANTERIOR SPLINT—SLOUGHING OVER THE LOWER FRAGMENT—SLIGHT NECROSIS—CURE.

(Under the care of Mr. BERKELEY HILL.)

E. T., female, aged 56, was admitted into No. 2 Ward on October 21, 1873. This patient, in climbing over a wall, seated herself on the top and slipped off. There was a drop of about six feet—deeper than she expected. She pitched heavily on her feet, but cannot say whether the toes struck the ground first, or her foot as a whole. She injured her left heel, but not so as to prevent her walking; and on the following day she applied at the hospital, when she was admitted as an in-patient. It was then found that the patient had wrenched off the tubercle of the os calcis (left). The fragment was drawn up by the muscles of the calf about three or four inches above the heel, and could be felt as a sharp prominence beneath the skin, apparently about the size of half a walnut, and with the tendo Achillis attached to it above. Between this prominence and the heel there was a marked depression, and no part of the tendon could be felt here. There was not much swelling and very little tenderness except when the fragment of bone was manipulated. There was a dark patch of ecchymosis at the back of the leg, just above the heel. The patient could flex and extend the ankle-joint with freedom. The limb was put up temporarily with the hip and knee-joints semi-flexed and the ankle extended, the leg and foot being firmly bandaged in this position.

October 23.—Patient does not suffer much pain in the leg, except an occasional attack of cramp in the muscles of the calf. The injury was examined this morning, and put up in the following manner:—The leg being flexed, and the foot extended, the fragment of bone was manipulated as nearly as possible down to its normal position, being there fixed by a pad of lint and strapping; the leg was then bandaged from above down, and over this was placed a straight anterior wooden splint well padded with cotton-wool, and reaching from the knee to the toes. The limb was laid on its outer side, with a stirrup to retain it in position.

24th.—There is a little pain over the dorsum of the foot from the strained position; otherwise the patient is all right.

25th.—The splint was taken down this morning and re-adjusted. The fragment of the os calcis is in good position, but there is redness of skin and tenderness from pressure over the heel, the piece of bone threatening to come through. Care was taken to avoid pressure over the tender spot, and the leg put up as before.

30th.—The splint was taken off and readjusted to-day; the position of the fragment of the os calcis is good.

November 3.—Patient going on well; experiences no discomfort from the splint.

8th.—A little slough over the projecting edge of upper fragment. Splint removed; foot kept in position by three bands of strapping—one behind, and one on each side.

13th.—Patient's foot being somewhat inflamed, all bandages were removed, and simply strapping applied.

20th.—Os calcis being tolerably firm, with fibrous union, all strapping and bandages are removed. The wound shows no tendency to heal up. There is necrosis of calcaneum.

24th.—Two small pieces of bone removed by the dresser. There is more to be seen; but this cannot yet be got away. The parts are swollen and the wound sluggish.

December 6.—Decided improvement in patient's condition; wound looking quite healthy.

17th.—Yesterday, patient being under chloroform, several pieces of bone of small size were removed. Wound was dressed with water.

January 14.—Patient went out to-day, provided with a pair of crutches—the wound being simply superficial and rapidly healing up, and not larger than a threepenny-piece.

## THE MIDDLESEX HOSPITAL.

[For notes of the following cases we are indebted to Dr. Coupland, Medical Registrar.]

### CASE OF MEDIASTINAL TUMOUR SIMULATING CHRONIC PHTHISIS.

(Under the care of Dr. GREENHOW.)

The following case is of interest as showing to how great an extent an intra-thoracic tumour invading the lung may give rise to physical signs resembling those of chronic phthisis, accompanied in this instance by general bronchitis; it also shows an entire absence of "pressure-signs," which are of such importance in aiding diagnosis, and this in spite of the considerable size and extent of the growth revealed at the autopsy.

W. P., aged 42, a sweep, admitted on December 12, 1872. His father had died from "breaking a bloodvessel in the lungs"; but beyond this there was no family history pointing to phthisical or cancerous dyscrasia. The patient was married, had one healthy son, and he stated that he had enjoyed good health to within the four or five years preceding his admission, having suffered habitually from winter-cough during this time. The cough generally lasted from autumn to early spring, and was accompanied by great shortness of breath. His present illness began somewhat suddenly three months before admission, with pain and a sense of tightness in the chest, shortness of breath, and inability to lie down; he was also troubled with nausea. Cough of a hacking character soon supervened. Four weeks after the onset of the malady he experienced pain of a sharp shooting character in the right side of the chest, with inability to move the right shoulder and elbow. The acute pain and apparent loss of power in the arm passed off, but the tightness in the chest and the cough increased, while a more or less constant "dull heavy" pain in the centre of the chest supervened, varied at times by pain of a smarting character below the manubrium sterni. In this condition he was admitted into the hospital.

*State on Admission.*—An emaciated, swarthy man, with dark hair and eyebrows, suffering from a troublesome cough, with scanty expectoration, and slight dyspnœa. There is slight but appreciable subclavicular flattening on the right side, which expands much less than the left. There is also dulness on percussion below the right clavicle; fair resonance below the left. On auscultation rhonchus and sibilus of variable intensity are heard equally over both parts; there are no moist sounds. Posteriorly there is imperfect resonance over the greater part of both lungs, and creaking sibilus in every part. Pulse 108; temperature 98·2°.

14th.—Morning temperature 103·2°; pulse 120. Evening temperature 101·8°; pulse 116; respirations 36.

19th.—Much orthopnœa. Cough troublesome; sputa muco-purulent. Subcrepitant râles audible over the whole chest.

20th.—Orthopnœa continues, mainly at night. Cough very troublesome; sputa copious, muco-purulent. The area of dulness under the right clavicle is increasing. Abundant moist râles everywhere. Temperature 101·8°; pulse 128.

On the 27th the moist râles had mostly disappeared, being only occasionally heard in the right infraclavicular region, where the dulness was very marked and the breath-sounds harsh and sibilant. There was loud sonorous rhonchus over the left front and the whole of both backs.

On January 14, 1873, it was noted that there was more or less impaired resonance over the whole back, absolute dulness at the right posterior base and in the left supra-spinous fossa; the whole of the right side of thorax was imperfectly resonant, and the left also to a slight extent. The breathing was harsh, with prolonged expiration over the right lung; abundant rhonchus in all parts; slight subcrepitation in right subclavicular space, brought out by coughing. There was constant troublesome cough, with scanty sputa.

On the evening of the 16th he was seized with an attack of dyspnœa, which persisted throughout the next day. He became cyanosed, and died on January 20, being able to swallow till within a few hours of his death.

The temperature ranged between 100° and 103°, the evening temperature being mostly the higher; it became normal three days before death. The pulse ranged from 108 to 132. Night-sweats were not observed.

*Autopsy, twenty hours after Death.*—Body somewhat emaciated; rigidity slight. On opening the abdomen, nearly the whole of the liver was seen to project below the ribs. On raising the sternum and rib cartilages, the pericardium was seen to be exposed to an unusual extent, the whole of the root of the aorta being visible. There were four ounces of fluid in the pericardial sac; the right cavities of the heart were full of blood; left almost empty. Muscular substance flabby and pale; valves healthy. The right lung was removed with extreme difficulty, owing to very firm adhesions, and to the presence of a large tumour seated in the posterior mediastinum, and completely surrounding the root of the lung. This tumour, which was lobulated and somewhat pear-shaped, measured five inches from above down, and had the following relations:—The œsophagus passed in front of the growth, which encircled the tube for its posterior two-thirds and considerably constricted it. The trachea and the arch of the aorta were also displaced forwards by the mass, which narrowed the trachea and the left bronchus by causing a projection of their posterior wall into the tube. The right bronchus was completely buried in the mass, but its main divisions were pervious. The right pulmonary vessels and other structures in the root of this lung were also completely invested. The aortic arch was merely displaced; in no way constricted. Below, the tumour was adherent to the pericardium. On section the growth had a white and vascular appearance, and exuded a copious milky juice, which, under the microscope, was seen to be almost wholly made up of cellular elements, mostly round, and of the size of white blood-corpuscles, but a few were spindle-shaped and branched, with bright glistening nuclei. (Subsequent microscopical examination of sections of the tumour showed it to be of the class of *lymphadenomata*.) The growth invaded the upper lobe of the right lung to a considerable extent, the inner two-thirds of this lobe being almost wholly replaced by tumour-substance, the rest of the lobe being collapsed, airless, deeply pigmented, and tough, traversed throughout by white lines of the new growth which extended along the bronchioles and pulmonary vessels. The pleura over this lobe was thick and fleshy in consistence. Besides the main mass, there were two other nodules of the size of walnuts; one in front of the right innominate vein, the other in front of the middle division of the pulmonary vein. The remaining bronchial glands were slightly enlarged. The middle lobe of the lung was also infiltrated along the lines of the bronchial ramifications, especially in its lower half; the rest of the lobe being pale and emphysematous. All the lobes were firmly adherent to one another, and the lower lobe, though free from infiltration, was for the lower two-thirds of its extent in a state of grey hepatisation, the solidified lobules standing prominently out from the cut surface owing to marked increase in the amount of interlobular tissue. A layer of recent lymph covered the pleura over this portion of the lung, which was sharply marked off from the remaining one-third of the lobe, which was crepitant, pigmented, and somewhat emphysematous. The left lung was universally adherent—most so at the apex,—but it was wholly free from solidification. It was everywhere crepitant, but much congested and pigmented. The lining membrane of the bronchi was injected, thickened, and roughened. There were numerous hæmorrhagic erosions in the stomach, and the intestines were much contracted and empty. The mesenteric and retro-peritoneal glands were notably enlarged, rather soft, and white on section. The lacteals proceeding to the mesenteric glands from the intestines were beautifully mapped out, appearing as yellowish-white lines accompanying the nerves and vessels. (This distension of lacteals was probably due to implication of the thoracic duct in the mediastinal mass.) The liver contained two yellow-coloured nodules of the size of peas, having the characters of lymphadenoma on microscopical examination. The parenchyma of the liver was firmer than natural. The spleen and kidneys were healthy.

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The Burning of the Body of Lady Dilke.—Those who feel interested in this first instance of cremation will find full details of the procedure in the *Deutsche Klinik* for October 31, from the pen of Med.-Rath Dr. Friedrich Küchenmeister, who officially superintended the proceedings.


TERMS OF SUBSCRIPTION.

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# Medical Times and Gazette.

SATURDAY, NOVEMBER 21, 1874.


## DANGEROUS BURIAL-GROUNDS.

Our great daily contemporary, the *Times*, has lately given up a considerable amount of space to the discussions excited by Mr. Gladstone's *pronunciamento* against Ultramontanism and Professor Tyndall's discovery of "Bud on Typhoid Fever." The present Premier may, we suppose, feel somewhat complimented by the very serious and energetic way in which his warnings against Rome have been followed up by the ex-Premier; and we trust that he will feel encouraged and strengthened by the active and widespread interest shown in sanitary questions. There has, indeed, been a lull in the typhoid discussion since the publication of Dr. Beale's able letter on "Fever Germs"; but we hope that another correspondence and discussion on matters affecting the public health will be excited by the description given in the *Times* of the 17th inst. of the condition of two cemeteries in South London. Some time ago, when drawing attention to the movement in favour of cremation, and giving the arguments that may most fairly be used in support of the adoption of that mode of disposing of our dead, we spoke of the dangers that must arise to the living from overcrowded cemeteries, and that may arise from any cemetery in which the interments are not regulated by strictly observed rules of time and space. And the revelations made of the management, or mismanagement, of the two cemeteries above referred to, not only demonstrate the necessity of such rules, and remind the public that that necessity has been duly recognised by the State—regulations for the management of cemeteries having been provided by the Burial Acts,—but, further, they prove the need of some more active and minute supervision of cemeteries than that which the "Medical Inspector of Burials for England and Wales to the Home Department" has been able always to exercise.

It appears that in April and May there was an unusual amount of sickness, including cases of scarlet fever and diarrhœa, in the neighbourhood of the Battersea Cemetery,

and this was popularly attributed to the overcrowded and therefore insanitary condition of the burial-ground. The increased amount of sickness was a fact, and the Medical Officer of Health for West Battersea reported that the overcrowding was also a fact, and "was assuming dangerous and alarming proportions." The Home Office was communicated with, the Inspector of Burials held an inquiry, and all that had been alleged regarding the state of the cemetery was admitted or proved. It appears that, though there is a Burial Board elected by the Vestry of the parish, the only person responsible for the violation of the burial regulations is the Superintendent of the Cemetery, and his resignation has been required by the Home Office. The public will, however, probably ask, What are the duties and uses of a Burial Board? and does it require a special application to the Home Office to set in motion its Medical Inspector of Burials? The motive which led to the violation of the law was a desire to economise ground and keep down the current expenses. The Medical Officer of Health stated in his report that if all regulations are to be carried out, it does not contain sufficient space for a year's burials, and, in another part, that it must be closed in three years. "This contingency it was which led the Board, with ground drained to the depth of eight feet, to permit graves to be dug deep enough to hold the coffins of fourteen adults or twenty-six children. The percolation of water into these common graves produced decomposition before the graves were filled; and the emanations from them endangered the health of the clergymen and the mourners at each successive funeral up to the fourteenth or the twenty-sixth, as the case might be."

Like motives induced the Burial Board of the other cemetery to which allusion has been made to permit of systematic infringement of the legal regulations. These, under the Burials Act, require that there shall be between each coffin a foot of earth, "which shall be closely rammed down, never to be again disturbed"; that there shall be four feet of earth above the top coffin; and that there shall be no second interment in an earthen grave on the same day, unless it be of a member of the same family. Some suspicions as to the proper management of the cemetery led to investigations being made into the matter by the Parish Vestry, which elected the Burial Board, and by the Board of Works of the parish in which the cemetery is situated; and the result showed that the above regulations had been disregarded, and that though the cemetery is drained to a depth of eight feet only, graves had been dug to a depth of twelve feet and fourteen feet. According to the account given in the *Times*, one of the members of the Burial Board expressed to the Vestry his regret that such pressure had been put on the Board that they would be compelled for the future to obey the law, and one of his reasons for regretting this was "that the carrying out of this regulation in all graves would cause the ground to be filled up in two-thirds of the time it would otherwise have lasted, so that obedience to the law would impose a serious burden upon the ratepayers, which might have been evaded or postponed if the illegal practices of the Board had been ignored." There is something almost grand in the coolness with which all sanitary considerations are thrust aside, and the audacity with which the law is ignored in pursuit of what such gentlemen as this are pleased to call economy. At the instance of the Wandsworth Board of Works an inquiry into the management of this cemetery also has been ordered by the Home Office.

We understand from the statement in the *Times* that when the irregularities at this cemetery were first brought under the notice of the Parish Vestry it was stated that the Home Office Inspector was fully aware of all that was being done; but that the Vestry Committee failed to find the slightest proof that he "could be aware of the illegalities that were being practised"; and he himself states that, "in answer to his inquiries, he was always informed that the regulations were being strictly adhered to." And it is further observed, in the article from which we have derived our information, that—"The enforcement of the law and of the existing regulations will, it is said, necessitate an appeal to the Home Secretary for some relaxations in the case of the metropolitan cemeteries, most of which, it is broadly insinuated by the delinquent Boards, have been guilty of the same practices. There is something startling in local boards urging their deliberate breach of well-considered laws as a reason why those laws should be amended. The absorbent properties of soils, the progress of decomposition in different soils, the emanation and diffusion of poisonous gases, the risks of mourners and of adjoining residents, are all elements which have determined the present state of the law, and what is based on scientific fact and experience cannot be changed, to the detriment of the living, for the sake of enabling a local board to pursue a policy of so-called economy." We should say that there is also "something startling" in the insufficiency of the supervision which one not unnaturally supposes to have been intended to be exercised over burial-grounds by a "Medical Inspector of Burials," and which "could not" have made the Inspector aware of such illegalities as have been practised. We do not for a moment suspect that there has been any neglect or perfunctory performance of his duties by that officer; but surely the state of these cemeteries proves in the most absolute manner that frequent, closer, and more minute inspection is necessary.

## FEVER GERMS.

The publication in the *Times* of November 16 of a remarkable letter from Dr. Lionel Beale on "Fever Germs" must have served at once to keep the attention of the public powerfully directed to the question of sanitation, and to give a rude shock to the theory which was so strongly urged by Professor Tyndall. We had occasion last week to object upon many grounds to the appearance of Professor Tyndall as the public champion of the doctrine of the purely contagious propagation of typhoid fever, and we therefore hail with satisfaction the publication of Dr. Beale's letter, which gives abundant evidence in support of a wider view. The investigations of Dr. Beale on the essential nature of rinderpest or the cattle-plague ought to be familiar to every inquirer in the department of fever; and, whatever the fate of the theory which is founded upon them may be, they entitle their author to the most earnest attention of the profession and of the public at the present juncture. There can be no doubt that it is from these investigations, coupled with abundant clinical experience and the possession of most extensive and intimate acquaintance with the phenomena of normal and morbid life, that Dr. Beale now finds himself in a position to demand a public hearing.

Perhaps the primary point in the argument which runs through Dr. Beale's letter is that fever germs arise within the body, and by a process of degradation from the living matter of the body itself. This is no postulate of the author, but a fact ascertained by the most laborious of all processes—by careful and prolonged investigation throughout the wide field of pyrexia in "idiopathic" and "symptomatic" fevers in man and in animals. And intimately connected with this result is one, if possible, even more important—and at the present moment at least of paramount interest—that fever germs may "arise anew." It is almost unnecessary for us to indicate, to those who are following with interest the present discussion on the nature and origin of typhoid fever, the complete opposition which the practical interpretation of this doctrine presents to that urged by Professor Tyndall. The fever germs, Dr. Beale proceeds to say, "are not formed or evolved in the world outside" the body—not directly from filth, for example.

They are neither microscopic fungi, nor derived from them. This being the case (although we would here recommend cautious hesitation on the part of the public until the results obtained by other investigators shall have been fairly stated), it follows almost as a necessary consequence that, as regards their essential nature, all the fever poisons of man and the higher animals are closely allied. There is evidence also open to every professional observer, in the occurrence of isolated outbreaks of fever, in favour of the view of the production in this way of a new fever poison.

The question now arises—What circumstance especially favours the generation of fever poisons in the members of a community? To this Dr. Beale would reply—A chronic state of filth. But while he thus strongly insists upon the origin *de novo* of fever germs in persons living in defiance of sanitary laws, Dr. Beale distinctly recognises the transference of the poison from one body to another, or, as he expresses it, the possibility of its being "imported." Still, the presence or not of filth will determine the occurrence of the fever after such importation. This is, indeed, the turning point of Dr. Beale's argument; for he declares that while the free growth of imported fever germs is insured by a chronic state of filth, the germs will on the other hand die if the body into which they gain entrance be not in a state favourable to their multiplication. The state of health, or, as it may be otherwise expressed, the power of resistance, may be preserved by good water and well-arranged sewers. For, "even though the inhabitants of a town well drained and supplied with good water should be fully exposed to the assaults of hosts of fever germs, in their highest state of morbid activity, they would suffer no injury."

Only a week ago we indicated the danger of the practical adoption of the belief that stinks and foul drains and fæcal accumulations are harmless as long as typhoid fever can be kept away. We have now before us a powerful reinforcement of our argument. We observe, with much satisfaction, that the *Times* supports the criticism of Professor Tyndall's letter which we then offered, and very powerfully pleads the cause of rational sanitation, and especially of the employment of medical inspectors by the Local Government Board. Speaking of the "numerous and various potential channels" by which an epidemic may be diffused, it stigmatises as "a disastrous blunder" the attempt of that body "to employ its non-medical inspectors for the purposes of health administration." It must have been a source of sincere regret to every intelligent observer of the precarious advance of sanitation in this country to find the plan which is here deprecated very warmly advocated in the *Saturday Review* of November 7, in an article on "Sanitary Policy." That an inspector of nuisances, who shall make periodical visits to the dunghills of his district, is likely to add much to our knowledge of the nature and origin of fever poisons, is a doctrine utterly unworthy of one of the organs of advanced thought at the present day. A little knowledge is always a dangerous thing; but the practical application of an imperfect truth may sometimes lead to disasters nothing less than national.

## SICK PRISONERS AND THE HOME OFFICE.

An inquiry that has lately taken place at the Westminster House of Correction concerning the death of a prisoner under penal servitude, affords subject for important reflections. It appears that Dr. Lavies, the Medical Superintendent of the Prison, acting under the rules formed for his guidance, reported to the visiting justices more than twelve months ago that the life of the prisoner was endangered by her continuance in confinement. The visiting justices forwarded this report to the Home Office, and some days afterwards the Inspector of Prisons visited the prisoner. The result of this visit seems to have been that the Home Secretary determined *not* to liberate the prisoner. During the next ten months Dr. Lavies repeatedly sent in reports as to the gradually declining condition of the prisoner, attributing it mainly, if not entirely, to her incarceration, and urging the absolute necessity of her being liberated as the only means of saving her life. Not one of these recommendations was adopted by the Home Secretary, nor did the Prison Inspector come to see the prisoner until September in this year, when she was dying. The surgeon still pursued the course he had adopted throughout, and again begged that she might be removed, stating that even at that late period she might possibly revive. The unfortunate woman died on the 9th inst. An inquest was held on the 11th, and Dr. Lavies expressed it as his positive opinion that had she been set free, in accordance with his advice a year ago, she might and most probably would have lived. The inquest was adjourned, in order, as the coroner stated, that those against whom it seemed to him serious charges were made might be summoned to offer what explanation they could. The coroner also found fault with Dr. Lavies for not having given him previous intimation of the course the inquiry was likely to take, so that he might have communicated with the visiting justices and the Home Office on the subject. Dr. Lavies—we think very properly—replied that he did not feel himself justified in furnishing private information concerning a public inquiry, and that he could not put himself in the position of an informer against the Home Office. He had made no accusation against nor cast reflections upon anyone, but had simply given a plain statement of facts.

At the adjourned inquest the entire correspondence between the visiting justices and the Home Office was produced and read, and the Inspector of Prisons (Dr. Briscoe) was examined. That gentleman stated that he had twice seen the prisoner—in November, 1873, and in September, 1874—and had not endorsed Dr. Lavies' recommendation, considering that the poor woman would be better cared for in prison than out. The jury returned a verdict of "Natural death from debility."

Now it appears to us that the real question arising out of this inquiry has been nearly, if not completely, lost sight of. The question of comparative care and comfort inside and outside of the prison; the attention of the medical officer and other prison authorities; the progress of the prisoner's disease, or diseases, whatever they were, have little or nothing to do with the points at issue, which are these—Was the report made by Dr. Lavies in November, 1873, a true one? Did it faithfully represent the prisoner's condition—namely, that her life was in danger, not from disease, but from the depressing influence of imprisonment upon her? If this were really so, then we venture to think that the responsibility of declining to remove the only impediment to restored health is a very serious one; and considering the position and large experience of Dr. Lavies in matters of this kind, we think a more suitable verdict would have been—"Death from debility, caused mainly by the depressing circumstances of imprisonment; and the jury beg to express their great astonishment that the frequent recommendations made for the prisoner's liberation were not adopted by the Home Secretary."

## PERNICIOUS ANÆMIA: A NEW DISEASE.

The advance of knowledge is ever bringing to light new diseases, or rather is disentangling and isolating groups of symptoms formerly confused under one comprehensive title, and showing how they really depend on different causes and on different pathological conditions. "Bright's Disease" and "Addison's Disease" are terms which remind us how symptoms uncomprehended for centuries may be suddenly elucidated by the grasp of minds gifted in co-ordinating facts. The acuteness of a Swiss observer seems to have added another to the

list (already no short one) of diseases with which the present century has enriched our text-books. Under the name of "Progressive Pernicious Anæmia," Dr. Biermer, of Zürich, has described an affection which differs from ordinary simple anæmia in a marked manner, and which, in fact, appears to be a disease *sui generis* in the sense employed above. In five years he has met with fifteen cases of it in patients varying from eighteen to fifty-two years of age; the majority being women. It frequently followed chronic diarrhœa, and child-bearing seemed especially to predispose to it. Those affected became extremely pale, and the skin of their hands, feet, and face acquired a swollen look. They became weak, had fits of giddiness and palpitation of the heart. The appetite failed, and there was a feeling of pressure in the epigastrium. Transient diarrhœa often occurred, and there were attacks of feverishness without the fever assuming any particular type. Anæmic murmurs were sometimes present of such intensity that organic disease of the heart was suspected, but none was ever found after death. With all these symptoms of failing health it is a very remarkable fact that no actual diminution of the fat covering the body could be made out. As the disease progressed ecchymosis appeared in the retina, even though vision remained intact. Sometimes there were small petechiæ under the skin, and less frequently hæmorrhage took place from the nose and kidneys. Transient paralyses were probably due to small hæmorrhages into the brain-substance. Towards the end of life dropsy sometimes set in, and delirium also occurred. The course of the disease was always chronic, and the termination always fatal. The necropsy invariably showed a partial fatty degeneration of the papillary muscles of the heart, and fatty degeneration of the small bloodvessels of various organs. No treatment has as yet been of any avail. Biermer's observations have been corroborated by Professor Immermann, of Basle, who has lately met with two cases exactly resembling those described by the former. Immermann, in his remarks on these cases, especially insists on the diagnostic points which mark off pernicious anæmia from other diseases in which poverty of blood is a prominent feature. Thus, it differs from ordinary chlorosis in its steady and uninterrupted development, and from marasmus of other kinds in the retention of the fat which covers the body. Pernicious anæmia has a great superficial resemblance to albuminuria, but in the former the urine either contains no albumen at all or only a mere trace. The absence of enlargement of the spleen and lymphatic glands separates it from leucocythæmia, and the absence of pigmentation of the skin distinguishes it from Addison's disease. The only cases known when Immermann published his paper in the early part of the present year occurred in the neighbourhood of Basle and Zürich. He therefore believes that there must be some local cause for this very rare affection, since its symptoms are so remarkable that it would otherwise have probably been observed elsewhere. However, Professor Zenker has already given an account of the post-mortem examination of a woman who died in the Dresden Hospital after suffering from extreme anæmia and repeated hæmorrhages from the uterus. Her body presented all the pathological appearances of "pernicious anæmia." She had hæmorrhages into the brain, ecchymoses on the visceral surface of the pericardium, general anæmia of all organs, and fatty degeneration of the heart-muscles and of the aorta. A similar case, without autopsy, has been recorded by Dr. Gfrörer, of Heilbronn, so that, after all, the disease may turn out to be one which, like many others, only requires to be carefully searched for to be found. We are not aware that any case has as yet been reported in Great Britain; but no doubt there will soon be many observers on the look-out for it, and new light will be thrown on its etiology and course. For the sake of poor human nature we must, however, hope that so serious a malady may only be due, as Immermann supposes, to special local influences, and that its distribution has not a wide range. Unless improvement in the treatment of disease goes hand-in-hand with the discrimination of its various forms, science alone, and not the sufferer, will be benefited thereby.

## THE NEW FORM OF MEDICAL CERTIFICATE OF THE CAUSE OF DEATH.

We are indebted to the courtesy of the Registrar-General for being able to publish this week a copy of the "Medical Certificate of the Cause of Death," as finally determined on for issue to registered medical practitioners. Our readers will at once recognise for themselves the points in which the new form of certificate differs from the old one, and we think the general opinion will be that the alterations are improvements. We have not printed the counterfoil, as that remains unchanged. On the back of each certificate is printed a notice of the section of the new Registration Act by which the registration of death will be governed; with a list of the "persons qualified to be informants for the registration of the death, and to whom alone the certificate should be given"; and a note of the points of information that the Registrar will require from the person bringing him the certificate. Each book of certificates is supplied with a list (compiled from the Nomenclature of Diseases issued by the Royal College of Physicians) "of the diseases of most common occurrence, in the hope that the names may be generally adopted by practitioners in returning the causes of death." The Registrar-General states that the new form of certificate has been submitted to the present President of the General Medical Council, the Presidents of the Royal Colleges of Physicians and Surgeons, and the Master of the Society of Apothecaries, and has met with their approval and sanction. Finally, the new death certificate is to be used by *registered* medical practitioners only.

BIRTHS AND DEATHS REGISTRATION ACT, 1874.

MEDICAL CERTIFICATE OF THE CAUSE OF DEATH.

[To be given by the medical attendant to the person whose duty it is to give information of the death to the Registrar.]

I hereby certify that I attended....., whose age was stated to be.....; that I last saw h..... on the..... day of ....., 18.....; that he died*..... on the .....day of....., 18....., at.....; and that, to the best of my knowledge and belief, the cause of h..... death was as hereunder written.

| Cause of Death. | Duration of Disease.† | | | |
|---|---|---|---|---|
| | Years. | Months. | Days. | Hours. |
| (*a*) Primary..... | | | | |
| (*b*) Secondary ..... | | | | |
| (*c*) ..... | | | | |

* Should the medical attendant not feel justified in taking upon himself the responsibility of certifying the *fact* of death, he may here insert the words "*as I am informed.*"

† The duration of each form of disease or symptom is reckoned from its commencement until death occurs.

Witness my hand, this..... day of....., 18.....,
Signature.....
Registered qualification.....
Residence.....

N.B.—This certificate is intended solely for the use of the Registrar, to whom it should be delivered by the person giving information to him of the particulars required by law to be registered concerning the death. Penalty of £2 for neglect of informant to deliver this certificate to Registrar.

*** The Registrar-General cautions all persons against accepting or using this certificate for any purpose whatever except that of delivering it to the Registrar.

## THE WEEK.

TOPICS OF THE DAY.

The Shropshire Ethical Branch of the British Medical Association, at their last annual meeting, resolved to issue a tariff of medical fees, which they recommended to be adopted by the members of the Association. This tariff is founded upon that of the Manchester Medico-Ethical Association. The document is of such a length, and embraces so many excep-

tions, that we cannot find space to insert it *in extenso*, and an abstract of it would fail to do justice to it. Taken altogether it is a very commendable document, and worthy the serious attention of all the branches of the British Medical Association. A tariff universally adopted throughout the kingdom would be of great value to the profession, and not without service to the public.

One of the most important topics of the week has been the election of Coroner for the Central Division of Middlesex. Ever since the death of Dr. Lankester considerable interest has been excited on the subject—two lawyers (Mr. James Boulton, Vestry Clerk of Clerkenwell, and Mr. J. F. Langham, Deputy Coroner for Westminster) representing the legal profession, and Dr. W. Hardwicke and Dr. Diplock representing medicine. It was wisely agreed by all parties that there should be no canvassing on either side; but meetings have been held and influential committees formed for the support of each candidate, and extensively advertised. It was thought desirable that only one candidate as representative of each profession should be nominated, as this would be the fairest way of testing the opinion of the constituency. Mr. Boulton would appear to be the most popular representative of the lawyers, whilst Dr. Hardwicke seemed to hold the same position with regard to the doctors. We have spoken strongly on the importance of not dividing the medical interest, and were grieved to find that both the medical candidates were nominated on Tuesday, the 17th, but only one lawyer; as Mr. Langham, feeling that his chance of success in the contest was but small, with a proper *esprit de corps* declined to be nominated, and withdrew in favour of Mr. Boulton. The consequence of this state of things, if persisted in, would have been to make the election of the solicitor a certainty; but Dr. Diplock, to his great credit, also withdrew on the 18th, and the contest was thus narrowed to a fight between one representative of medicine and one of law. The polling is taking place as we go to press, and we hope to be able to give some idea of what the result is, though the poll is not to be declared till the 21st.

So strong a prejudice exists in the minds of some persons against the establishment of a hospital for contagious diseases in certain localities, that it is useless to adduce any argument on the subject to them. There can be no doubt that the evils attendant upon these hospitals to the surrounding neighbourhood are much over-rated, whilst the benefits to society may be very great. The good people of Hampstead seem frightened at the prospect of the late temporary small-pox hospital in that parish being converted into a permanent hospital for infectious diseases. A scene of some excitement occurred at the last meeting of the Vestry, which had met to consider the subject. After much discussion, the following motion was proposed—"That a special committee, including the medical men on the Vestry, be appointed to consider what course had better be adopted in reference to the permanent establishment of a hospital for contagious diseases in Hampstead; whether it is likely to be injurious to the inhabitants, detrimental to local property, and, by bringing a stigma on Hampstead, produce a prejudice against its recently establishedhealth." After a prolonged discussion, an amendment to the following effect was proposed and unanimously carried—"That this Board, feeling that the site selected for the Fever Hospital at Hampstead is altogether unfit and a great and serious detriment to the health and property in the neighbourhood, resolve that there be now appointed a committee to take all necessary measures to obtain the removal of the hospital from its present site, and that the committee be empowered to co-operate with other persons in the matter." A committee of twenty-two vestrymen, including the chairman and the medical gentlemen, was nominated.

It was the boast of O'Connell that he could drive a coach-and-six through any Act of Parliament, and certainly he proved on more than one occasion that he was correct. Legislation in regard to the rights and privileges of the medical profession is certainly most defective and most ambiguous. The clause in the Medical Act, 1858, with reference to penalties to be inflicted on any unlicensed practitioner who assumes any title implying that he is registered under that Act, is all but inoperative; at all events, cases brought before justices have resulted in decisions so contradictory that nothing but a complete revision of the clause referred to can satisfy either the profession or the public. We need not refer to individual cases in which this has been exemplified. We quote with satisfaction from the *Times* the following report *in extenso*, which certainly is complimentary to the strong common sense of our Scottish brethren. It has a moral beyond the mere result of the case. That moral may be found in the offer of Dr. Robertson, which we need not further allude to:—

"Last week a question of some importance to the medical faculty and the public generally came before Sheriff-Substitute Hope in the Dumfries Sheriff Court. Thomas Barett Stokoe, practising as a physician in Lochmaben, Dumfriesshire, was charged, at the instance of John Aitken, physician and surgeon, Lochmaben, with a contravention of the Medical Act, Vict. 21 and 22, cap. 90, by having, on August 20, in a certificate of death under his hand granted to the registrar of the district, appended to his signature the letters 'M.D.,' implying that he was registered under the Medical Act or that he was recognised by law as a physician or practitioner in medicine, whereby he had become liable to a penalty not exceeding £20, or to imprisonment for three months. The case is the first of the kind which has occurred in Scotland, and it created a good deal of interest. The main point raised was whether a physician holding a degree from a foreign university was entitled in this country to subscribe himself a doctor of medicine. After evidence for the prosecution had been given to prove the granting of the certificate, the case was adjourned till Monday to allow respondent's agent to cite as witnesses for the defence the secretaries of two American universities from which respondent held diplomas, and who were then in London. A diploma was then produced from the Livingstone University in America and the Edinburgh University of Chicago, bestowing the degree of M.D. on the defender. On Monday a letter was read by the defendant's agent from Dr. Robertson, secretary to one of the colleges in America, and who is at present in London, stating that he was unable to be present that day to give evidence, but asking that the case be adjourned till January 1, 1875, when he would attend and give incontrovertible proof that the diplomas were granted by a legally constituted body, and recognised as such by law. For the prosecution it was shown that, in reply to a communication, Dr. Robertson had offered to grant a degree from the same university as that from which the defender held his diploma for £10, without undergoing any course of study or examination. A somewhat analogous case decided in the English courts was also adduced, in which the defender was convicted for using the letters M.D. on his accounts, he holding his degree from a foreign university. The request for an adjournment was refused after a long debate, and the defender was found guilty, and fined £2 with £5 4s. 9d. of expenses, or fourteen days' imprisonment."

We greatly regret to have to record the death, at the early age of fifty-five, of Dr. Edward Smith, Inspector and Assistant Medical Officer, Local Government Board. We shall endeavour to give next week a notice of his life and works; this week it would be impossible to do so satisfactorily, for Dr. Smith was one of the most untiring workers of the day. The immediate cause of death was, we believe, double pneumonia.

The death is announced, on the 6th inst., of Dr. Friedrich Rochleder, Professor of Chemistry in the University of Vienna. A pupil of Liebig's, Rochleder was Professor of Chemistry at Prag for many years, and at Vienna since 1870. His lectures in the new laboratory of the latter University were much frequented by the students.

### ELECTION OF DR. HARDWICKE TO THE CORONERSHIP FOR CENTRAL MIDDLESEX.

We are rejoiced to hear that Dr. Hardwicke has been elected by a considerable majority—it is said by 1164 votes against 818. The most important Coronership has thus for the third time in succession been entrusted to a medical man.

### THE LATE GOLD COAST CAMPAIGN.

A contemporary has lately published a complete list of the number of deaths which occurred in connexion with the recent war on the Gold Coast, and from this it will be gathered that the short Ashantee campaign cost this country the lives of thirty-two officers. Of these, five are returned as from wounds received in action, and the others from the effects of climate. Captain Buckle (Royal Engineers) and Captain Nicol (Hants Militia), with Lieutenants Eardley-Wilmot (Royal Artillery) and Eyre (of the 90th Regiment), were killed in the field, and Major Baird, of the 42nd Highlanders, was so severely wounded in the march on Coomassie that he gradually sank, and died on board the hospital-ship *Victor Emmanuel* shortly after having been got down from the front. The victims of the terribly pestilential climate included Captain Hopkins, 16th Regiment; Captain Huyshe, Rifle Brigade (at the camp on the Prah); Lieutenants Dalgleish and Warner, 2nd West India Regiment; Lieutenants Burke, Williams, and Elderton, and Sub-Lieutenant Huntingford, of the 1st West India Regiment; Surgeon-Major Burrows, M.D., and Assistant-Commissaries Burke, Reid, and Harrymount. Twelve deaths are reported to have taken place at sea, either whilst on passage home or under treatment in hospital-ships. These comprise Lieutenant-Colonel Maxwell, C.B., 1st West India Regiment; Captain Thompson, Queen's Bays; Lieutenant the Hon. F. Charteris, Grenadier Guards; Lieutenants Townshend, 16th Regiment, and Johnstone, 23rd Regiment; Lieutenants Clough and Roper, 1st West India Regiment, and Sub-Licuteuant Cox, 2nd West India Regiment; Surgeon-Major Kelly, Surgeons Clarke and McCarthy, and Assistant-Commissary Marsh. Then Major Saunders (of the Royal Artillery) and Lieutenant Dillon (of the Army Hospital Corps) died after returning to England, and Captaiu Butler on the Continent.

As some slight set-off to the foregoing sad list it is satisfactory to learn that by the latest accounts the Ashautee Expedition would appear to have been perfectly successful in its results. The whole colony is reported to be quiet, and King Koffee, unable to resume his ascendancy over the more powerful of the tribes until recently under his orders, has wisely given up all attempts at coercion, and expressed his anxiety for the resumption of trade relatious. We understand that Brevet-Major Lanyon, of the 2nd West India Regiment, and Surgeon-Major Rowe, M.B., C.M.G., will shortly embark for service at the Gold Coast, they having accepted appointments from the Colonial Office. Both these officers served on the Coast during the Ashantee campaign, the former as Aide-de-Camp to Sir Garnet Wolseley towards the end of the war, and the latter with Sir John Glover in the Volta Expedition. Sir John has returned to this country from his sojourn abroad, and is reported to have thoroughly regained his health; and as the 42nd Highlanders were considered in a fit state to embark this week for foreign service, it may be said that the malarious effects of the late campaign have by this time almost exhausted themselves.

### DEATH OF THE HEAD OF THE STATISTICAL BRANCH, ARMY MEDICAL DEPARTMENT.

It is with much regret that we have to record the death of Deputy Surgeon-General Barclay, M.D., the head of the Statistical Brauch at the Army Medical Department Head-quarters, Whitehall. Dr. Barclay had been suffering for some months from an internal tumour, the exact seat of which could not be determined, and on this account grave fears were entertained for his ultimate recovery, although his death, which took place on the 13th inst., was more sudden than had been anticipated. The deceased gentleman entered the service in December, 1843, and served throughout the Kaffir wars of 1846-47 and 1850-53, for which he held a medal; he also accompanied the expedition across the Orange River against the Basutos in 1852, and was present in medical charge of the head-quarter column at the action of Berea. He was attached to the 43rd Regiment on the march from Bangalore to Calpee in 1857-58, and was Senior Medical Officer of the 2nd Brigade Sangor Field Division during the hot-weather campaign in Central India, and the subsequent operations, for which he received a medal. On the formation of the medical circles in India in 1867 he obtained his promotion as Deputy Inspector-General, and proceeded to the Madras Presidency; and after this tour of duty he was appointed Principal Medical Officer at Edinburgh, which post he left to succeed Dr. Balfour as head of the Statistical Branch. Dr. Barclay, though a man of large bulk, was noted for the activity of his habits. In India he was a well-known tiger-slayer, and was in his day one of the very few sportsmen who would venture to attack that animal on foot. Several rumours have been circulated as to who will succeed Dr. Barclay at the Army Medical Board, but we believe that we are correct in stating that up to the present time no definite appointment has been made.

### INCREASED MORTALITY IN BIRMINGHAM.—THE ADULTERATION ACT.

Birmingham, one of the healthiest of the large towns of England, would appear by the last quarterly report of Dr. Alfred Hill to have lost prestige in this particular during the last three mouths. The total number of deaths during the quarter ending the 3rd ult. was 2503, which was equal to an annual rate of 27·74 per 1000. This number contrasts unfavourably with that for the corresponding quarter of 1873, which was 2235, giving a rate of 25·15 per 1000 per annum. This high death-rate is almost entirely due to the great fatality of scarlet fever and small-pox during the quarter. Of the former there were 241 deaths, showing an increase on the previous quarter of 138. Of the latter 165 deaths occurred, showing a decline of 31 on the previous quarter. The cases of small-pox reported this quarter amounted to 1059. Of these 962 were said to be vaccinated, 87 or 8·2 per cent. not vaccinated, and in 10 of the cases it was doubtful whether they had been vaccinated or not. The 165 deaths occurred in 110 vaccinated persons, 50 not vaccinated, and 5 doubtful cases. The percentage of deaths to cases is 11·43 in the vacciuated, 57·47 in the unvaccinated, and 15·58 per cent. in the total number. The percentage of deaths in the unvaccinated, which last year was 51·28, has steadily risen this year from 37·19 in the first quarter to 46·47 iu the second, and 57·47 in the present quarter—a higher percentage than has been reached during any quarter since that ending March, 1873. Dr. Alfred Hill, the Medical Officer of Health, in his last report, remarks that the very large and increasing mortality due to preventable causes shows how great is the necessity for a hospital for infectious diseases, which he recommended last year, and which recommendation was strongly supported by Dr. Buchanan in his recent report upon the small-pox epidemic. The deaths from the zymotic diseases are the principal cause of the rise of the annual mortality from 23—the average death-rate of the last five years—to 27 in the past nine months. The significance of this increase is better appreciated when calculated for the whole twelve months. It is thus found to make a difference of about 1500 lives in the year, in addition to those preventable deaths included in the former death-rate of 23 per 1000. Dr. Hill reports having analysed during the quarter twenty-one samples of food and drink. Four of the samples of milk were adulterated, and one was fraudulently tampered with by the abstraction of 40 per cent. of its cream; the remaining samples were genuine.

The samples of whisky were rather watered, those of gin highly so, but they contained no other adulterant. As there is no fixed standard of strength for spirits, no legal action can be taken in reference to them. All the other articles proved to be genuine.

### THE PUBLIC HEALTH (IRELAND) ACT.

All ranks of the profession in Ireland are up in arms to protest against the manner in which the medical sanitary officers under this Act have been treated by local authorities in all parts of that country. On Thursday, the 5th inst., a deputation of the City of Dublin Dispensary Medical Officers was received by the Council of the Royal College of Surgeons, when the following resolution was passed unanimously:—

"That the Council of this College having had their attention directed to the inadequate scale of remuneration in a very great number of instances fixed upon by the sanitary authorities, not only in the city but throughout Ireland, as salaries for the medical officers employed under the provisions of the Public Health (Ireland) Act, feel it to be their duty respectfully to urge upon the Local Government Board the propriety of their taking such steps as will secure for said officers a scale of remuneration more in accordance with their social and professional status, and with the important and arduous nature of the duties expected at their hands."

On Tuesday, the 10th inst., a special general meeting of the Irish Medical Association was held in the Albert Hall of the Royal College of Surgeons, to discuss the same subject. The chair was taken by the president of the Association, Dr. Henry Smith, of Donaghmore, Borris-in-Ossory, and representatives from even very remote districts of the country were present.

On the same afternoon a special meeting of the King and Queen's College of Physicians was convened, to receive a deputation from the sanitary medical officers of Ireland with reference to the inadequate salaries allotted to them as such; and to take action thereon as might appear desirable. A resolution was proposed by the Rev. Professor Haughton, M.D., seconded by Dr. Evory Kennedy, and carried unanimously, to the effect that—"This College do appoint a committee to prepare a memorial for presentation to the Chief Secretary in support of the prayer of the City Dispensary Medical Officers, and of the Irish Poor-law Medical Officers' Association, and that the College of Surgeons be requested to co-operate with this College in furtherance of this object." It was afterwards resolved that the committee should consist of the Rev. Dr. Haughton, Dr. Evory Kennedy, Dr. Grimshaw, Dr. J. W. Moore, and Dr. Hayden, Fellows of the College of Physicians; and that the following members of the deputation be invited to assist the committee—Dr. Darby, Dr. Whistler, Dr. Speedy, Dr. D. Toler Maunsell, and Mr. O'Leary, M.P. for Drogheda.

### THE GRAVEYARD AT MALAHIDE CASTLE, NEAR DUBLIN.

About a year ago, Lord Talbot de Malahide petitioned the Local Government Board for Ireland to have closed an overcrowded and very old graveyard in close proximity to his residence at Malahide. It came out in evidence at an inquiry instituted by the Board, in response to his lordship's memorial, that the graveyard had been used for many centuries, and was within forty-nine feet of Malahide Castle. Acting on the evidence which was given before one of their inspectors, the Board made an order closing the burial-ground. A technical point was raised by the Council, representing several of the country people who had rights of sepulture in the graveyard, as to the illegality of the Board deputing one of their inspectors to hold the inquiry. This point was argued before the Court of Queen's Bench, Dublin, and the result was that the order for closing the ground was quashed. Lord Talbot again memorialised the Board, and, as Section 18 of the Public Health (Ireland) Act, 1874, gives powers of inquiry to the inspectors of the Local Government Board for burial purposes, an inquiry took place before Mr. W. P. O'Brien, one of the inspectors, on Monday, November 16. The inquiry possesses a special interest from the number of medical witnesses who were examined—six on one side and two on the other. The evidence as to the unwholesome state of the graveyard was very strong. It is expected that the decision of the Local Government Board will be given in a fortnight or three weeks.

### DUBLIN HOSPITAL SUNDAY.

Notwithstanding the very inclement weather last Sunday in Dublin, the collections made in support of the above object have fully realised the most sanguine expectations of its promoters. Up to Tuesday returns had been received from seventy of the 144 churches or places of worship participating in the movement, and the gross receipts were £2600. The largest sums collected were—£272 at Messrs. Moody and Sankey's Evangelistic Services at the Exhibition Palace (at the Saturday children's service the collection amounted to £62, at the Sunday afternoon service to £210), £232 at St. Matthias Church (Rev. Canon Daunt); £150 at Christ Church, Leeson-park (Rev. Dr. Neligan); £98 at Society of Friends' Meeting-house, Monkstown; £88 at Society of Friends' Meeting-house, Eustace-street, Dublin; £75 at St. Bartholomew's Church (Rev. Canon Smith), etc. The Jews' Synagogue contributed £41, while the collection at St. Patrick's Cathedral (as we have already stated) reached £224. Next week we hope to give the total amount, and, if possible, some idea as to the apportionment of the money to the various hospitals.

### HEALTH OF SCOTLAND.

It appears from the Registrar-General's report for the month of October last that the deaths of 2536 persons were registered in the eight principal towns of Scotland. This number is 81 above the average for the corresponding month of the last ten years, and is the highest recorded in October since the commencement of the Registration Act in 1855. The zymotic (epidemic and contagious) class of diseases proved fatal to 881 persons, constituting 34·7 per cent. of the whole mortality, which is the highest number, and, with one exception, the highest proportion of deaths from these diseases in the eight towns during any month of October since the Registration Act came into operation. Previous to this, the highest number and proportion for the month occurred in October, 1863, and were respectively 850 deaths and 39·1 per cent. Allowance being made for increase of population, the number of these deaths is 190 above the October average for the last ten years. This great zymotic mortality is to be ascribed to the prevalence and fatality of scarlatina, from which disease 570 deaths have resulted, constituting 22·5 per cent. of the mortality. This outbreak of scarlatina is by far the most destructive that has occurred since the commencement of the Registration Act. Previous to this, the most fatal outbreak was in November, 1863, when there were registered 402 deaths, being 16·4 per cent. of the whole mortality of that month. In Aberdeen, 9·2 per cent. of the deaths have been from scarlatina; in Greenock, 9·3; in Paisley, 12·2; in Edinburgh, 14; in Glasgow, 22·8; in Perth, 30·1; in Dundee, 34·8; and in Leith, 37·3 per cent.

### LONDON ANTHROPOLOGICAL SOCIETY.

At the meeting at 1, Adam-street, Adelphi, on the 13th inst., Dr. Charnock, F.S.A., President, in the chair, Professor Leitner, Principal of the Government College, Lahore, exhibited some interesting curiosities from Iceland, Greenland, and the Faroe Islands, and some Icelandic photographs and manuscripts. The results of his tour were:—1. The reading of the inscription of the brass font at Hruna Church, which had been given up by Danish and Icelandic antiquaries, but which was simply "*Rathe wis tyne bi*," or "Success be with thee"—a salutation

addressed by the Angel Gabriel to the Virgin Mary. It probably came from Lübeck in the fifteenth or sixteenth century. Similar inscriptions existed elsewhere, of which Professor Leitner took rubbings. 2. An attempt to reach the east coast of Greenland—which, although a journey of only three days' sail from Iceland, the descendants of the Norse Vikings would not undertake for any money. Dr. Leitner found that a solid mass of ice, at least 120 miles long, flanked by innumerable detached masses, was as far south as N. latitude 66° 2′. Further progress was impossible, and the French boat in which he made the attempt was fortunate in being able to drift back to Iceland. A copy of the *Times* of June 28, 1845, which he had found on Hekla, was traced to a humorous Englishman. 3. The sulphur mines at Krisuvik, in the south of Iceland, are productive, though probably not so much as those of Husavik in the north; but a road could be made from Krisuvik to Hafnfiord by going to the south of the adjacent lake. Dr. Leitner concluded with a detailed account of the people. They are very backward in every respect, in spite of the civilising relations of Denmark and of the Millenary Festival, which has been much exaggerated. Mr. A. G. Lock, Dr. Carter Blake, Dr. Karl Blind, Mr. Buckley, Mr. Jeremiah, Mr. Pincott, Dr. Clifton, Mr. A. L. Lewis, and the President joined in the discussion.

### THE PHYSIOLOGY OF SECRETING GLANDS.

At the recent meeting of the German Medical Association, at Breslau, certain important communications were brought forward on the anatomy and physiology of secreting glands. Professor Heidenhain, in describing the results of his investigations upon the pancreas, stated that he has discovered that there are certain differences between the active or secreting and the quiescent pancreas, just as there are in other glands such as the salivary and gastric. He has also shown that the pancreatic juice is quite different according as it flows from a permanent or from a temporary (that is, a freshly-established) fistula; the latter only is to be regarded as the normal. Dr. Nawrocki, of Warsaw, described at the same time the physiology of the nervous and secreting portions of the parotid. The nerves of secretion of the gland are the facial and sympathetic, and these can be excited reflexly from the trigeminal or glosso-pharyngeal only. Atropine has the same effect on the parotid gland as it is known to possess on the submaxillary.

### METROPOLITAN WATER-SUPPLY.

We are glad to observe that the Metropolitan Water Companies are gradually completing the extension of the constant system of supply. The filtering of the metropolitan water-supply has been lately much improved by the extension of the area of the filters, and by a slower rate of filtration being observed. During the past month the supply was generally clear and well filtered.

### OPHTHALMIA IN THE MITCHAM SCHOOLS.

Ophthalmia in an acute form is prevailing at the Schools at Mitcham. Twenty to thirty children were last week confined to their beds, and almost all the children had their eyes affected. The subject was brought before the guardians of Holborn at their last week's meeting by Mr. Hedley, the Poor-law Medical Inspector, and was referred to the Schools Committee.

### SMALL-POX IN JAMAICA.

A correspondent from the district of St. Ann writes to the *Gleaner*, Kingston, Jamaica, on the 24th ult., that "small-pox was still lurking about the Dry Harbour Mountains; many deaths at Clarksonville, Bird Bridge, and Tweedside. The want of a doctor very much felt. Our good medical officer lives twenty-nine miles from the places above named. What can be expected of him?" A report from the Colonial Secretary to the Custos of Kingston on the 9th ult. states that there were forty-five cases of small-pox in the city at that date and twenty-six under treatment at the small-pox hospital, and that only sixteen new cases, included in the above numbers, had been reported during the previous week.

## THE TREATMENT OF LEPROSY WITH GURJUN OIL.

(*From a Correspondent.*)

In the number of this journal for June 20 last there was given an abstract of the extremely interesting report, published at Calcutta, of Surgeon-Major Dr. Dougall on the above subject. That report was dated Port Blair, in the Andaman Islands, November 23, 1873, and related the results which had been obtained by him since the commencement of the treatment, about the end of the previous May. Since then the use of the remedy, internal and external, was steadily persevered in with like encouraging success. After seven months' additional experience, he addressed a second report, on July 28 of the present year, to the Government of India, which, greatly to its honour, promptly adopted measures to secure a wider and more varied field for the trial of this mode of treatment, and to procure authentic information of the results from manifold sources, for the full attainment of the actual truth on a very important question. From a resolution adopted on August 14, 1874, we read:—

"The President in Council desires that the widest publicity may be given to Dr. Dougall's mode of treatment, and that every endeavour may be made to extend its benefits throughout India wherever opportunity offers, and wherever the medical agencies at the disposal of the Government can be employed to assist the promotion of this object. The hospitals and dispensaries might collect patients from the districts, and the system should more especially be tested in any leper villages or asylums which may exist in the different provinces. . . . The President invites the co-operation of all local governments and administrations towards the extension of this valuable medicine, and requests that careful reports on the results may be submitted at the end of a year for the information of the Government of India."

The following extracts from Dr. Dougall's second report, a copy of which was recently sent from the India Office to the College of Physicians, will enable the profession to judge of the position in which matters stood at its date, about four months ago.

Alluding to the regulation of the convict settlement in the Andamans as to male lepers, that, when declared unfit for ordinary labour, they were to be put on the reduced diet,(a) viz., that which was deemed sufficient for female convicts and for invalid men, he remarks—

"Under their present circumstances, as most of them are not old or weakly, neither are they accustomed to an idle life, as was formerly the case when their disease, as a rule, precluded them from all active exercise on account of their bodily condition. The state of paralysis in which most of them were rendered it impossible, further, to take any active exercise; and, apart from this, the numerous leprous sores from which they suffered rendered it inexpedient for them to be employed in any way with the other convicts, even had they not been paralysed. All this is changed now, and almost every one of them is able for some amount of labour, which they have been performing under the directions of the apothecary, such as trimming the ground around the hospital, improving the footpaths, etc."

Dr. Dougall enumerates fourteen of the patients who "are far more advanced towards what is ordinarily called a 'cure' than ever I expected to see them; and it is exceedingly gratifying to find that not only has the progress of such a disease been arrested, but I may, without exaggeration, say it has been

(a) According to the dietary table given in Dr. Dougall's first report, "five ounces of fish are issued four times a week to each man belonging to the fourth and sixth classes; and on days it is not obtainable, five ounces of rice are given instead. These men also get an ounce of dhyee (curded milk) twice a week." Besides these articles, there are daily rations, in specified quantities, of rice, attah, dhall, ghee, salt, curry stuff, tamarind, and vegetables.

obliterated. Traces of the disease are still apparent in the loss of fingers and toes, which, of course, cannot be restored; but otherwise these men are in the enjoyment of ordinary health and comfort. Where fingers and toes have been lost, the ulcers which formerly marked their sites are now perfectly healed cicatrices, and show no inclination to break out again into leprous sores."

These fourteen men should, Dr. Dougall recommends, be employed on light work, as watchmen, etc., and "be restored to the grade they occupied before their transfer to the leper ward at Haddo. This would put them on a better scale of rations, and in some instances enable them to obtain such little luxuries as convicts may legitimately enjoy in this settlement; and, by employing them at Haddo, they could be made to present themselves twice a week before the second medical officer, who would be in a position to observe any indications of a return of the disease."

In respect of the other leprous patients, who were at the date of the report "not quite fit for employment," Dr. Dougall recommends that they "should get the same amount of food as an ordinary labouring convict, because they are all, without exception, progressing favourably and satisfactorily, and I am firmly convinced that even the very worst cases only require time, as the improvement they have made from the commencement of the Gurjun oil treatment is most marked, and, though slow, it appears to be none the less sure; and in no single instance has there been an interruption in the steady progress they have made, further than that caused by the incidence of other diseases to which lepers are liable as well as others, such as attacks of fever, bronchitis, etc."

Whether the improvement already effected would, even in the most successful cases, be permanent if the use of the remedy were suspended or discontinued, is a point that remains to be determined. "So far as thirteen months' experience enables me," says Dr. Dougall, "to form an opinion of the permanency of the improvement while the lepers are under the influence of the Gurjun oil, I can speak very confidently indeed, as in no instance has there been a relapse, but, on the contrary, I have to record nothing but steady progress, which is especially marked in the case of lepers in whom the disease had not progressed very far before they were brought under treatment. In such cases the treatment, when regularly carried on, displays its efficacy in a very few months, as shown in the last five of the men enumerated above, who all came under treatment since October 19, 1873. As yet I have not tried to deprive any of the lepers of their usual supply of the oil, and therefore cannot speak as to the permanency of their improved condition when not under its influence."

All the above statements are certainly very encouraging, and all must cordially wish Dr. Dougall continued success in his meritorious efforts to effect the mitigation and arrest of an intractable disease like leprosy, and reinstate the poor victims in the enjoyment of a more active and useful life than that to which they have been hitherto doomed. Far be it from us to damp in the least his hopefulness as to the ultimate results of his treatment by any expression of hesitancy or doubt. Still we feel we must wait for further and more extended evidence—such as there is now the prospect of obtaining during the next twelve months—before any confident conclusions can be formed. That good in various ways will come out from the action of the Indian Government, as stated above, is beyond all question.

## FROM ABROAD.

### Mortality of Berlin during 1873.

Geh. Medicinal-Rath Dr. E. H. Müller, in his report upon the mortality of Berlin, just published (*Monatsblatt f. Med. Statistik*, September and October), observes that it is an error to estimate the mortality of a population solely from a comparison of the entire number of deaths with that of the entire number of inhabitants. Yet this is a very prevalent error, and has in England received an official acceptance. It must be regarded as an error inasmuch as it leaves out of consideration that the mortality is very different at different periods of life, that of early childhood being very high; so that the more children that are born, and the more of these that are in existence in the first year of life, the greater will be the entire mortality. In order to rightly judge, therefore, of the sanitary condition of a population by the help of the number of deaths that occur, the number of those that die and that are living at different ages, and above all the number of births must be taken into consideration. On comparing the mortality of Berlin with that of other towns, the number of deaths will be found to be considerably higher than in many other places, especially in many towns of England; but then the number of births is also much larger, and this entails a much higher mortality.

At the end of 1873 the population of Berlin was calculated at 937,000, and the number of births which took place during the year amounted to 36,281 (18,660 males, 17,621 females), being 578 more than in 1872. There were 38·72 *births* for every 1000 inhabitants, or, abstracting 1562 born dead, 37·05 per 1000. So large a proportion of births exercised considerable influence on the mortality. Among the births were 420 twin-births and 6 triplets. The illegitimate births amounted to 5352—2742 males, 2610 females. The *deaths* amounted to 28,078, being 113 less than in 1872. One death occurred to 33 inhabitants, or among 1000 inhabitants 29·64 deaths, or, excluding those born dead, 28·29 deaths. There were 129 births to 100 deaths. The maxima of deaths took place in the summer months, and that solely from the great infantile mortality of those months. A table setting forth the deaths as they occurred in each police-district shows that the number of deaths in each district was proportioned to the number of births in that district. This is no peculiarity of 1873, but has been observed as a general rule in the respective districts. As stated in all former reports, so in the present, those districts which have the largest number of births and deaths are inhabited by the poorest classes of persons. The mortality of infants under one year has been exceptionally great this year; for while in 1872 it amounted to 10·634, it reached in 1873 to 11·137. Of 100 deaths in 1872, 39·9 took place during the first year, and in 1873, 42·0. Of 100 born living there died 31 in 1872, and 32 in 1873.

*Causes of Death.*—There were 1562 infants *born dead*, being in the proportion of 1 to 23 of the entire births, and 1 to 17·9 of the entire deaths. This proportion of infants born dead is a pretty constant one, and if it contrasts unfavourably with the American and English returns, this arises from the imperfection of the registration of dead infants in those countries. As has always been observed, the male sex has predominated not only absolutely, but also relatively to the births in general. Among the illegitimate children there was 1 born dead in every 14·4 births. The number of illegitimates also that died soon after birth was 1 in 14·4, while in legitimates it was 1 in 27·2. Of *suicides* there are returned 217, and as usual the males (151) greatly preponderated over the females (66). Of these, 61 males and 13 females died from hanging, 24 males and 27 females from drowning, 12 males and 20 females from poison, and 43 males and 1 female from shooting. *Accidental death* occurred in 352 instances, 292 being males and 60 females. There are 251 deaths returned from *puerperal fever*, but some of the deaths put down to inflammatory affections of the abdomen should be added. The deaths from *cholera* amounted to 740, and, as there were 1474 cases of the disease, the mortality amounted to 68·90 per cent. The deaths from *small-pox* only amounted to 100, showing that the epidemic of 1872, which had carried off 1100 cases, had really ended. *Scarlatina* was also less than usually fatal, 282 deaths occurring. There were 213 deaths from *pertussis*, these being pretty equally distributed over the various months, and, as usual, preponderating greatly among females (120) as compared with males (93), most deaths taking place during the first year, fewer during the second, and very few later in life. From *croup* and *diphtheria* there occurred 863 deaths, 410 of these being males, and 453 females. We have not space to pursue the return in other details, and subjoin Dr. Müller's general conclusions:—

"1. The mortality conditions for the year 1873, although Berlin did not escape the cholera, may be regarded, compared with former years, as favourable, the deaths amounting to 29·64 per 1000 inhabitants. 2. This proportion is all the more favourable as the births rose to 38·72 per 1000. 3. The proportion of deaths observed in the different districts was, as it always is, found to be dependent upon the large or small number of births, the largest number both of births and deaths being also always found in the poorest quarters of the

town. 4. The number of children dying during the first two years from atrophy, with cholera and diarrhœa, was increased. 5. The mortality from other causes was not aggravated by any unusual unfavourable influence. Especially was this the case with regard to typhus and the exanthemata. 6. The cholera never assumed large epidemic dimensions, and did not contribute to the general mortality more than 2·63 per cent."

### Professor Lasègue on Hot Baths.

In an article published in the *Archives Générales* for November, Prof. Lasègue gives the results of the investigations he has been engaged in on the therapeutical uses of the hot bath. The following are the chief conclusions which he has arrived at:—

Every hot bath should be of short duration—from twenty to thirty minutes at farthest. The temperature on entering the bath should be lower than on quitting it, whatever extremes this may reach, and the increase of temperature should always be made gradually. A useful maximum is found to be at 48° Cent. (118·4° Fahr.), but more often 45° Cent. (113° Fahr.). It is easily borne, providing that the sensations produced by the vaporisation of the water on the portion of the body not immersed are avoided, and that the maximum degree be not maintained beyond eight or ten minutes. When personal surveillance cannot be exercised, the formula of the prescription for a bath should be as exactly constructed as for the prescription of any other medicine:—"Bath to last ——; initial temperature ——; final temperature ——; increase it by —— degrees every five minutes; repeat the bath every —— during —— weeks."

On leaving the bath the patient is replaced in his bed, and soon regains, not his true temperature, which has varied but little, but his apparent temperature. In general moderate sweating ensues, which should neither be encouraged or arrested, leaving the patient in this point to himself.

M. Lasègue has tried after high temperatures (as 48°) the effect of cold applications, but he has found, contrary to what takes place after vapour baths, that these are neither useful nor agreeable. With regard to the therapeutical applications, he states that he has found this remedy of especial utility in chronic rheumatism which has produced deformities of the joints (*rhumatisme noueux*), and which usually resists all modes of treatment. After prolonged trials of medicated baths in such cases, he has come to the conclusion that when these are of use it is to the temperature that this is due.

"I may say that individuals the subjects of *rhumatisme noueux* (not having any complications which contraindicate this mode of treatment) derive a real local and general comfort from the use of hot baths. The articular rigidity is diminished, the joints are less doughy, and the movements less painful. Patients condemned to their bed and inaction find themselves able to resume some sort of manual procedure, to get up, walk, go downstairs, etc.,—exercises which had seemed to be for ever prohibited. The treatment has the advantage of being easily employed and of being economical, and, in my eyes, it has the still greater merit of being indefinite in its duration, so that it can be left off and resumed according to the indications; and persistence in it does not diminish its efficacy. Whatever the results may be that have been attained, however, there must be no illusions entertained as to the curability of this redoubtable disease. There the disease remains during the treatment in full evolution, and when you believe that you have realised a definitive benefit a new acute crisis, or a series of subacute attacks, compromises all. Discouraging as are these relapses, foreseen theoretically, but which we hope to escape, we must none the less persevere in whatever treatment we have adopted. I have endeavoured to ascertain how far hot baths, which do not, any more than other remedies, preserve from relapses, contribute to moderate the active crises. Tolerated even during the period of painful fluxion, they are really of no use except during the remissions,—to say nothing of the almost insuperable difficulty of their application to patients to whom the slightest movement causes painful suffering. Without discussing the value of medicated baths, I believe myself authorised by a long experience to declare that no methodical employment of such baths will be of service in *rhumatisme noueux* unless the temperature is regarded as the first consideration."

In other forms of chronic rheumatism not so far advanced as these, although considerable deformity of the joints may have been produced, the action of the baths is much more decisive, especially when the affection is confined to a small number of joints. In such cases M. Lasègue has tried the comparative value of local and general hot baths, and he is decidedly of opinion that the former are of far less efficacy.

"The pains which persist without deformity of the joints, as a consequence of acute or subacute rheumatism—whether these are aroused at intervals only, or have remained continuous since the disappearance of the fever,—are more easily modified by baths at a high temperature. Articular rigidity, which is so common and frequently so inconvenient, and which may remain for weeks or months without spontaneous pain or without any other suffering than that induced by the forced flexion of the joints, has no better remedy. Six or eight baths, repeated on alternate days, generally suffice. As a general rule, the employment of hot baths every day is of doubtful utility. The baths have not here, any more than in *rhumatisme noueux*, the privilege of preventing relapses. This is, in my opinion, one of the drawbacks of the bath treatment, internal remedies alone having the power of modifying the diasthetic condition of the subjects of rheumatism to a sufficient extent to bestow upon them a preventive value. . . . . Besides chronic rheumatism, which is especially favourable for their application, I have employed hot baths in various other pathological conditions; but I will content myself with indicating abdominal affections, and especially certain forms of chronic diarrhœa. I have even had recourse to baths raised to 40° and above in cases which seemed at first sight in full contradiction to their useful employment—in patients suffering from obstinate chronic bronchitis. An announcement so vague as this can only be regarded as an appeal to future experience; but what I can affirm is that I have never observed any mischievous influence, and that consequently further experiments may be tried without incurring the imaginary dangers that might be supposed. The question of the employment of hot baths in chronic broncho-pulmonary diseases is, moreover, of sufficient importance to deserve more than a mention. Lastly, I owe to Dr. Landrieux, my *chef de clinique*, the idea of a bolder application which has been crowned with success—that of the employment of hot baths in obstinate metrorrhagias, frequently arising from ill-determined causes, and supervening independently of all inflammatory antecedent or complication."

## FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, September 25.

The Women Question—Homœopathy—Quackery in the States; Results of Legislation against it—Irregular Pharmacy.

There are now scarcely any purely medical topics with which either the profession or the laity are agitated in this country. The women question is in a quiescent condition, having passed from the surface of current discussion for many months, and it is now sensibly left to work out its own solution. This is as it always should have been. Stirred up by injudicious though well-intentioned opposition, it assumed an importance it scarcely merited as an element of discord; and now that it is rarely, if ever, referred to in terms of contention, its merits are tranquilly brought into popular notice by its advocates only. The practitioners of the two sexes rarely clash, and both go on their way rejoicing at their own successes and sorrowing over their own discomfitures without annoyance or hindrance. Neither is there any active aggressive warfare in progress between the regular practitioners—those of the old school, as they are usually called—and others who entertain the homœopathic articles of faith; both classes have long since settled down into confirmed views of their mutual incompatibility, and do not mingle in any way in their daily routine of practice. There is the same gulf between them as in the days of old, but the opposition does not loom up into the gigantic proportions of former times. Indeed, there appears to be a feeling abroad that delusions are warmed into more enduring vitality by the ventilation which they sometimes receive, and *noli me tangere* seems to be written on many errors of medical belief which more caustic treatment cannot eradicate.

It would be well in this country if more vigorous measures could be enforced against all kinds of quackery. One great difficulty in their suppression is found in the fact that there

are nearly forty States in the Union, and that each has the power to legislate within its own borders. If the National Legislature or Congress had the authority vested in it to pass laws to protect the whole country against the vice and immorality of charlatans, there might be some hope of an effectual check being put upon them; but in the diversity of mere State interference or non-interference, a quack in one State may not be pronounced so in another, and may evade merited punishment by passing from the confines of one to the other before an opportunity is afforded for the detection of his delinquencies. Some of the larger States are beginning at this late day to take measures to regulate the practice of medicine, but it is strange how little enthusiasm is awakened in the breasts of legislators in matters which may involve the health and lives of their own families. Many of them are not, indeed, capable of discriminating between the genuine and the counterfeit, and view the opposition to pretenders on the part of all right-minded men as a symptom only of jealousy of their ill-gotten successes; and so time passes in inaction, and hundreds of lives continue to be yielded up in unavailing sacrifice. New York State, great in its resources, and wonderful in its commercial strength, made a spasmodic effort recently to place itself honourably upon the record, in the passage of a law to regulate the practice of medicine and surgery, but I imagine, from what I have heard of its workings, that it is still insufficient, and that the three months during which it has been in operation have not brought forth the fruits which it promised. Its great defect is that it was a foolish compromise on the part of the Legislature between a weak impulse to do a good thing and an earnest effort not to hurt the feelings of the numerous empirics through the State. Anticipating the passage of some such law, those who were likely to suffer from its stringent enforcement a year or two ago circulated printed notices in great profusion, intimating that its passage would cause a total destruction of business, ruining many "who are outside the pale which a bigoted and selfish school is endeavouring to raise for the purpose of enriching themselves, under the pretext of anxiety for the public good." It was also suggested, as a means of influencing the opinions of the press, that "publishers of newspapers should remember that it is not the regulars who pay, and that the passage of this Act would seriously affect their balance-sheet." Under such representations it is not surprising that sufficient opposition was created, backed by pecuniary considerations of no mean amount, to prevent the passage of any law until the past spring; and now the exceptions are said to be so liberally made as to render the working of the Bill for any practical purposes against crime and medical charlatanism almost a nullity. I fear that our law-givers have a keener regard to wealth than health, and that their sensitiveness for the sanitary welfare of the community which they misrepresent does not extend beyond the pocket-nerve.

While efforts of this kind—some of them abortive—are being made in different States, with varying success, to purify the profession and to clear away some of the poisonous emanations which thus contaminate the atmosphere, similar well-directed movements are being occasionally made by a sister branch of the medical profession to regulate the practice of pharmacy. Next to ignorance in prescribing, and equally important as a source of public injury, is the insufficiency of knowledge of the apothecary, combined with his tolerance and encouragement of every form of quackery behind his counter. I described in a previous letter (*Medical Times and Gazette*, January 27, 1872, p. 109) the characteristics of the American drug-stores or apothecary-shops, as they are generally called; but it is necessary to repeat that there is not one in a hundred of these that does not, in addition to its genuine and reliable stock of purely officinal and legitimate drugs and chemicals, deal in the sale of patent medicines and nostrums whose composition is an absolute myth to their vendors. The temptation to sell is, however, very influential as a motive power, and the demand is sufficiently great for the purchase of this class of so-called remedies to remove all conscientious scruples. Here, too, the insufficiency of legislative aid is again illustrated, for scarcely a provision has yet been effectively made to check pharmaceutical delinquencies, and the apothecaries themselves seem to be divided in their views of right and their fears of outside interference. As matters now stand, there is nothing more than a sense of honour to depend on to shield the public from the injurious effects of an unregulated traffic in drugs and poisons, the compounding and retailing of quack medicines, and the falsification of a hundred different articles. No one knows, except the druggist and perhaps his assistants, whether he rigidly adheres to the formulæ of the national standard or Pharmacopœia, and whether he may not vary the quantities of his ingredients according to the scale of his avarice or feebleness of conscience. If he chooses to make his tincture of opium, for instance, a weak and variable alcoholic solution of that drug, with its strength, or rather poverty, disguised by adventitious surroundings, there is no legalised inspector who has the power to step in on behalf of a suffering public and crush the author of such iniquitous proceedings. It is but just to say that there are several colleges of pharmacy in existence in this country whose efforts are directed to the mental culture of the future pharmacist; but the moral status rests with the individual himself and his capability of resisting the temptation of making his profession, as he is disposed to call it, a mere trade.

## REPORTS OF SOCIETIES.

### OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 4.

Dr. E. J. TILT, President, in the Chair.

THE following gentlemen were elected Fellows of the Society:—Edward Barber, L.S.A. (Sheffield), John Barclay, M.D. (Banff), William Thomas Greene, M.A., F. John Hannan, M.B. (Woking), Dean Longrigg, M.R.C.S. (Penge), William H. Payne, M.R.C.S. (Peckham), Albert John Venn, M.R.C.S., Harry Wells, M.D. Entre Rios, and David Young, M.D. (Florence).

RECTO-VAGINAL FISTULA CAUSED BY A ZWANCK'S PESSARY.

Mr. CHURTON related the particulars of a case where a patient, aged sixty, had worn one for two years. A rent large enough to admit two fingers existed at the time of the removal of the instrument. This closed up nearly entirely, without operative interference, in about two months.

Dr. ROUTH observed the case cited showed how necessary it was to know how long such instruments should be retained. The time was nowhere laid down in works on gynæcology. He himself had seen an instance where a globular pessary was retained for five years, and then had to be removed with forceps. He had known also of two cases in which Hodge's pessaries produced fistulæ. His rule was to keep them in for three months at the utmost, and then remove them for a few days before reintroduction; but usually he preferred six weeks.

Dr. ROGERS said that no matter how judiciously rules might be laid down in books for guidance of medical men using pessaries, they would not be observed by patients, partly from forgetfulness or misapprehension of the advice given, partly from nervousness and dislike to be frequently examined, especially when feeling pretty comfortable while wearing the instrument. On one occasion he had removed one of the old boxwood pessaries placed within the patient twenty years before by the President, Dr. Tilt. He had operated on other cases for removal of both Hodge's and Zwanck's pessaries, as also for fistulæ caused by them. He thought Zwanck's pessary a most useful instrument if removed every night, and its use discontinued for a time if necessary.

Dr. CLEVELAND thought that as it was improbable that a pessary would suddenly make its way through the vaginal wall into the rectum or bladder, the best rule of practice would be to direct the wearer of an instrument to present herself as soon as she experienced any unusual irritation or pain therefrom.

Dr. HOPE mentioned a similar case that had occurred to him in the out-patient department at St. Bartholomew's, where a large vesico-vaginal fistula existed as a result of wearing a Zwanck's pessary for fourteen months.

Dr. BRUNTON thought the cases were so interesting they ought to be put on record. He had no personal experience of such himself.

Dr. EDIS alluded to a case where he had extracted, with considerable difficulty, a large ball pessary from a patient who had worn it for eleven years, the whole of the vagina being in a state of granular ulceration. In several other instances he had removed instruments imbedded in the vaginal walls that had caused more or less inconvenience.

Dr. Tilt thought these cases should be noted in the *Transactions* as a warning to others.

Dr. Wiltshire mentioned a case which came under his care at St. Mary's Hospital, in which a Zwanck's pessary caused fistulous openings between both the bladder and the rectum. He thought that if a rule were laid down it should not depend on time, but on the supervention of symptoms of discomfort, discharge, etc. He regarded gouty women as very intolerant of pessaries, incrustations rapidly ensuing in such persons. He thought every patient should have clear instructions given to her respecting these instruments, and that Zwanck's pessaries might produce dangerous symptoms.

Dr. Gervis feared that Dr. Wiltshire's suggestion would not prevent all risk, as on more occasions than one he had removed a Hodge's pessary, on finding ulceration of the vagina present, corresponding with one or other of its bars, and yet the patient not conscious of any inconvenience, and complaining only of some leucorrhœal discharge.

Dr. Palfrey remarked that there was often great trouble without many symptoms. In one case, eighteen months after the introduction of a pessary, there was a sudden gush of urine, from the pessary having forced its way into the bladder. The patient denied all previous symptoms. He made it a rule with hospital patients to have them removed once a month by the nurse, who then employed the douche, and if no harm had resulted the clerk reinserted the pessary. He considered the old-fashioned Hodge very bad; Dr. Greenhalgh's modification being a great improvement. He regarded Zwanck's pessary as very dangerous.

Dr. Hayes referred to a case he had brought before the Society where a Hodge had become imbedded in the vaginal wall.

### Six-Months Fœtus.

Dr. Charles Carter exhibited a Fœtus born 172 days, or twenty-four weeks and four days, after marriage. The patient, aged twenty-six, was married on May 3, 1874, menstruation ceasing the last day of April. There had been a coloured discharge for one day at the usual time in the month following. Delivery took place prematurely on October 22. She had never experienced any fœtal movements. The fœtus weighed one pound six ounces, was twelve inches long, of a dark-red colour, with abundant hair on the head, and down on the cheeks. It cried loudly several times, passed meconium of a greenish-black colour, and urine whilst being washed, and lived for twenty-one hours. A little milk-and-water was given to it during life. The nails were well formed on the fingers, reaching almost to the ends. The eyelids were agglutinated together; on tearing them open the pupillary membrane was distinctly seen. The right lung was perfectly expanded, but only the upper lobe of the left. The testes were lying midway between the kidneys and the internal ring. There was a centre of ossification in the os calcis, but none in the astragalus. Centres of ossification also existed in the first three pieces of the sternum. The fœtus was not more than six months old, if so far advanced.

Dr. Routh thought it was important that the case should be carefully investigated. Two points of importance seemed to have been omitted in the account—viz., the commissures of the brain and the valvulæ conniventes.

Dr. Brodie mentioned that he had lately met with a similar case. A lady was confined at the end of six months and a week. The fœtus was living, and cried well. It swallowed with a little difficulty, and lived five hours.

Dr. Wiltshire also mentioned a case of twins at the fifth month, where one lived three or four hours, the other twenty-four hours.

Dr. Cleveland hoped that every means would be taken to ascertain the precise date of conception, as the main interest of the communication depended upon that point. Certainly the date of marriage, although of great value, was not always to be relied upon as preceding that of conception.

Dr. Barnes stated that in these cases we did not find the lungs completely expanded. As to the reputed age, he remembered an anecdote of the elder Rigby, who said that he had often met with instances of well-developed children born within seven months of marriage, but only with the first.

### Structure of the Decidua in Cystic Degeneration of the Chorion.

Dr. Hoggan demonstrated this by means of several microscopical specimens prepared by Mrs. Hoggan, M.D., from a case of miscarriage at the end of the sixth week, under her care, with explanations by her. The decidua caduca was seen to have no connexion with any hypertrophy of the uterine mucous membrane (if such exist), but that it was really a typical specimen of embryonic tissue, formed probably by exudation; and at this stage of growth the embryonic cells, imbedded in intercellular substance, had scarcely begun to differentiate themselves into the future tissues. Enough progress had, however, been made in the cells, forming themselves into rows, as to show development to be proceeding. The cystic degenerated ovum was of the size of a hazel-nut, covered with villi, and imbedded in deciduæ, which were destroyed in dissecting it out. The cyst-wall was treated with silver, but nothing but fluid was found inside. Endothelium was seen in different stages of growth, which seemed most active where the largest villi formed a sort of pedicle for the cyst. In the same field of the microscope could be seen the separate embryonic cells on dark ground substance, passing by growth and junction into the so-called lymphatic lacunæ, and these again passing by vacuoles into the regularly shaped endothelium cells lining the cyst-walls.

Dr. Madge inquired whether the villi of the chorion were examined. Death was due probably to changes taking place in these.

### Rat-Trap Forceps.

Dr. Heywood Smith exhibited two new pairs of Forceps to aid in the removal of growths, etc., from the uterus, or to be used as vulsellæ during ovariotomy. One was similar in construction to the ordinary pile-forceps; the other pair were constructed specially for the removal from the uterus or vagina of large fibroid tumours, or polypi, after they had been detached. They were made in two parts (as midwifery forceps), and when in position could be locked. The inner surface of the blades was armed with teeth pointing towards the handles, rendering their introduction easy, and their slipping difficult.

Dr. Meadows thought the forceps were likely to be of great use. On two or three occasions he had been obliged to leave the tumour in utero after detaching it, as he could not extract it for want of suitable forceps, the cervix not being sufficiently patulous to allow of digital manipulation.

Dr. Palfrey confirmed Dr. Meadows's experience. In a recent case of a large fibroid, a firm hold by Dr. Marion Sims's new hook was obtained, but all attempts to withdraw the tumour were vain, and at last Dr. Barnes's long forceps were employed. There was one defect in Dr. Smith's forceps—they did not lock in the handle.

Dr. Wiltshire asked why, in such cases as Dr. Palfrey alluded to—those in which removal of an already separated fibroid was impossible on account of its large size,—the tumour could not be cut up into small sections by means of the wire écraseur.

Dr. Gervis stated that he had on several occasions adopted the plan referred to by Dr. Wiltshire, and with complete success. Finding, after severing fibroids from their attachment, that they were too bulky to be drawn through the cervix or the vulva, as the case might be, he had divided them transversely with Weiss's écraseur, and found their removal then sufficiently easy. He could recommend this plan as preferable to such prolonged traction with forceps as spoken of by Dr. Palfrey.

### Membranous Dysmenorrhœa.

Dr. Alfred Meadows exhibited a specimen of the Membrane passed in a case of so-called Membranous Dysmenorrhœa. Remarking upon the intractable character of these cases, he invited the opinions of the Fellows of the Society on their pathology and treatment.

Dr. Aveling believed the membrane exhibited was the nidal decidua, or lining of the uterus, which is periodically shed, increased in thickness and toughness by hyperæmia of the organ. He had ventured to call this hypernidation. Mercury had been found to prevent this abnormal condition during the time of its administration. The rational remedies were those which reduced the supply of blood to the uterus.

Dr. Hayes inquired what appearances were presented under the microscope.

Dr. Williams inquired whether any trace of glandular tissue had been noticed; he had examined several, and found it present. Fatty degeneration of the lining membrane took place before the catamenial period; the tissues around were injected, but the uterus was not enlarged. Though mucous shreds were passed, the condition was due to an altered nutrition of the uterus itself; it was not congestion, but was

analogous to some skin eruptions, and was not the product of inflammation. Chlorate of potass had been tried, points of this substance being left in the uterus, which cured it for the time.

Dr. Madge remarked that Dr. Williams spoke of the mucous membrane lying loose. He would ask what was the condition of the wall beneath.

Dr. Williams replied that it was the same as in the uterus when menstruation had nearly ceased.

Dr. Barnes thought there was no naked-eye evidence of glandular tissue. A lady medical student had brought him a specimen she had passed herself, remarking that she had read they only occurred where sexual intercourse had taken place; this had not happened in her case. He thought the membrane occurred in consequence of hyperæmia, apart from gestation. The mucous membrane was not necessarily shed.

Dr. Hoggan remarked it was easy to prepare a specimen, and let the Fellows see for themselves whether it was an exudation or not.

Dr. Hayes inquired whether there were any traces of the Fallopian tubes in the mould of the uterine cavity that Dr. Meadows spoke of.

Dr. Gervis could recollect no case of membranous dysmenorrhœa in which extreme uterine congestion was not an abundant and probably antecedent condition, and the treatment that he had found to succeed the best strengthened this view. They were generally very tedious cases, but he had found local depletion by scarification and the internal use of the bichloride of mercury together very frequently effect a cure.

Dr. Rasch alluded to a case where a complete cast of the uterus had been passed.

Dr. Brunton suggested that there might be an element of syphilis in these cases, as several Fellows had stated that the treatment which gave best results was mercury in some form.

Dr. Heywood Smith inquired if Dr. Meadows had employed the intra-uterine application of hyd. pernit.

Dr. Tilt stated that some years ago he had published some cases of this disorder. There was one point to which sufficient attention had not been paid: independently of the body of the uterus being the source of the disease, the irritation and congestive state of the cervix was due to the irritation set up by the attempt to pass the membrane. In one case it was followed by acute inflammation. In regard to treatment, he had injected tincture of iodine in several cases, in two successfully. It was an important point to bear in mind the congestion of the uterus. As for Dr. Brunton's suggestion, he had never heard it mentioned before, and did not believe it.

Dr. Meadows, in reply, expressed his dissent from the view that these cases are due merely to an active state of uterine hyperæmia; he did not dispute that this condition existed in most, if not in all, of these cases, but there must be something more than this, for uterine hyperæmia was a very common condition, whereas membranous dysmenorrhœa was a comparatively rare disease. He believed it was essentially a constitutional affection, not a merely local disorder. In regard to the therapeutics, he knew of no certain remedy; all those which had been mentioned, and many more, he had tried in the present case without the slightest success. Iodine, mercury, iron, cod-liver oil, local depletion, and other local remedies had signally failed. He believed that many of these cases were practically incurable. Dr. Williams and Dr. Aveling were requested to report further on the case.

### Cases of Retroversion of the Gravid Uterus.

Dr. Gervis read a paper on this subject, relating the particulars of two fatal cases, as also of a third which only just escaped being fatal. Dryness of the skin was a prominent symptom in all the cases, and absence of any head symptoms. In the first case miscarriage occurred a few hours after reposition of the uterus, and death on the following day; complete retention had existed for three or four days. In the second case retroversion with retention had been present for a fortnight; six pints of extremely offensive bloody urine were drawn off. Death ensued the day following reposition of the uterus. In the third case retroversion probably took place three weeks before, with retention more or less complete, micturition only being accomplished with much difficulty and straining in small quantities at a time; three quarts of water were drawn off, and the uterus replaced in the knee-shoulder position. Inability to retain the urine persisted for ten days, but the patient ultimately did well.

Dr. Barnes suggested that, as at the late hour at which the paper had been read it was impossible to do justice to so important a subject, it would be well to postpone the discussion to the following meeting of the Society.

Dr. Cleveland seconded the proposition, and it was adjourned accordingly.

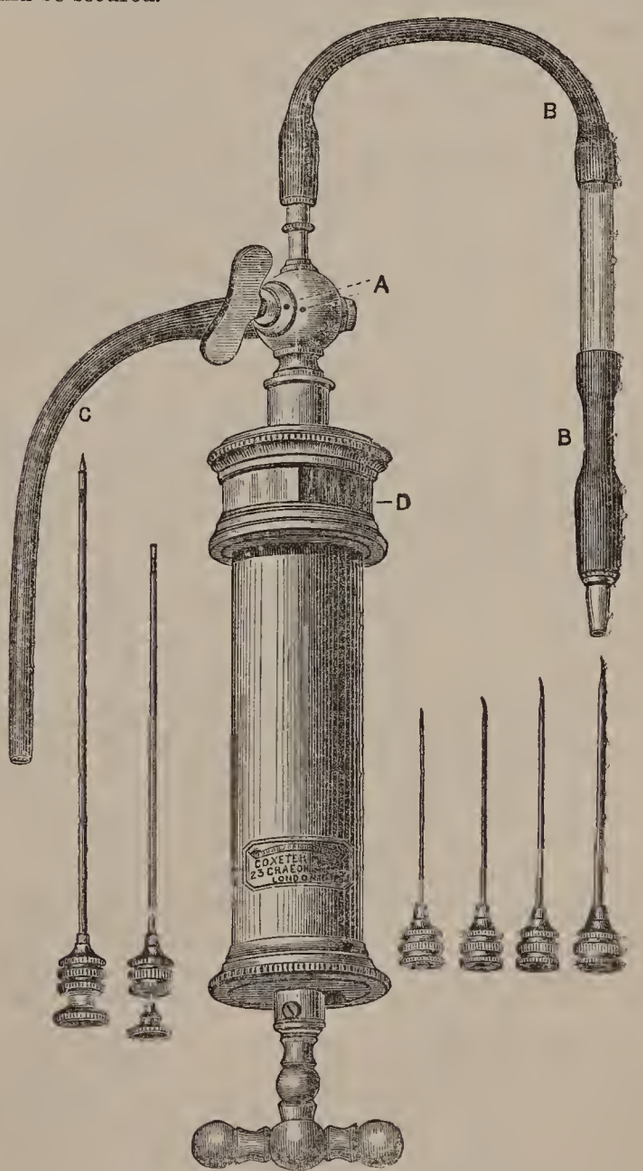
## NEW INVENTIONS.

### PHOSPHORISED COD-LIVER OIL.

Messrs. Young and Postans have sent us a sample of a preparation of phosphorised cod-liver oil, one teaspoonful of which contains one-hundredth of a grain of pure phosphorus. It is an "elegant" preparation, has very little smell, and is nearly tasteless; and as it combines with cod-liver oil, a medicine of proved value in the neuroses, phosphorus, which is rapidly rising in estimation in the treatment of those disorders, we are not surprised to hear that it has already been largely used.

### COXETER AND SON'S ASPIRATOR.

Notwithstanding the large number of aspirators which have been invented in France, England, and other countries during the last four years, it has appeared to Messrs. Coxeter that some modification was yet wanted, whereby a less complex and expensive instrument than the bottle aspirators, and a more completely air-tight one than the glass cylinder instruments, could be secured.




As is well known to those who employ them, aspirators are made upon two somewhat different plans, so as to furnish in the one case an unvarying, and in the other a varying vacuum. The latter kind, of which the bottle aspirator is a good example, allows of the vacuum being regulated according to the quantity of morbid fluid to be removed, and simplifies the operation of emptying any large cavity. In all other case

aspirators with an unvarying vacuum are undoubtedly superior, for, besides being more precise in action, they may be used as aspiratory injectors as well as for simple aspiration. They are, too, more portable and convenient for general use, and much more adapted for the requirements of private practice.

Recognising the advantages of instruments with an unvarying vacuum, Messrs. Coxeter and Son have manufactured an aspirator on this plan. Of course the principle upon which the aspirator rests cannot be varied: the aspiratory power of the vacuum, however perfect, can never exceed that of one atmosphere, whilst the finest needles and canulæ must be of sufficient calibre to allow of the passage through them of pus. In points of detail, however, such as in form and size, in the position and character of taps, as well as in the mode of producing the vacuum, there may be endless variations.

The attention which has been paid to these points in the instrument before us has had the effect of rendering it less costly and less complicated than many, and at the same time of enabling it to supply a fully sustained and perfect vacuum.

The capacity of the barrel of the pump is two ounces, and is thus of a size to allow of the vacuum being created by a single stroke of the piston. The piston is notched that it might be retained at the top of the barrel; and thus a true pneumatic machine is produced. The cylinder is made of brass, turned perfectly, so that the piston fits more accurately throughout, and a more perfect vacuum is sustained than is possible when the cylinder is made of glass. There is, however, a narrow glass ring fitted at the lower end of the cylinder, through which its contents can be watched. The advantage of this is that the operator can see at any moment the quantity of fluid within, and can thus tell whether it is still escaping or not into the barrel. Such a modification was not necessary to indicate the colour or character of the fluid, because this can be seen through the glass index, placed near the anterior extremity of the aspiratory tube, as soon as it has been transmitted by the needle; but this index would not inform the operator when the barrel was full, nor with certainty when the fluid ceased to run—hence the glass ring in the cylinder is an important and useful feature.

Although the syphon forms but a very imperfect mode of aspiration, yet it is by some considered requisite to a good aspirator that it should be capable of being converted at any moment into a syphon. Coxeter's instrument can be, and has been, made to supply this desideratum by means of a T-shaped tube, with an additional stopcock, adjusted between the needle and the stopcock of the aspirator.

As it can be instantly converted into an injector if required, there is no difficulty in employing with this aspirator Dieulafoy's fixed hepatic and thoracic trocars, which are valuable aids in the treatment respectively of suppurating cysts of the liver and purulent effusions into the pleural cavity.

The case containing the aspirator is fitted with four needles and two trocars (though of course more can be added), either curved or straight in form, at the request of the individual purchaser.

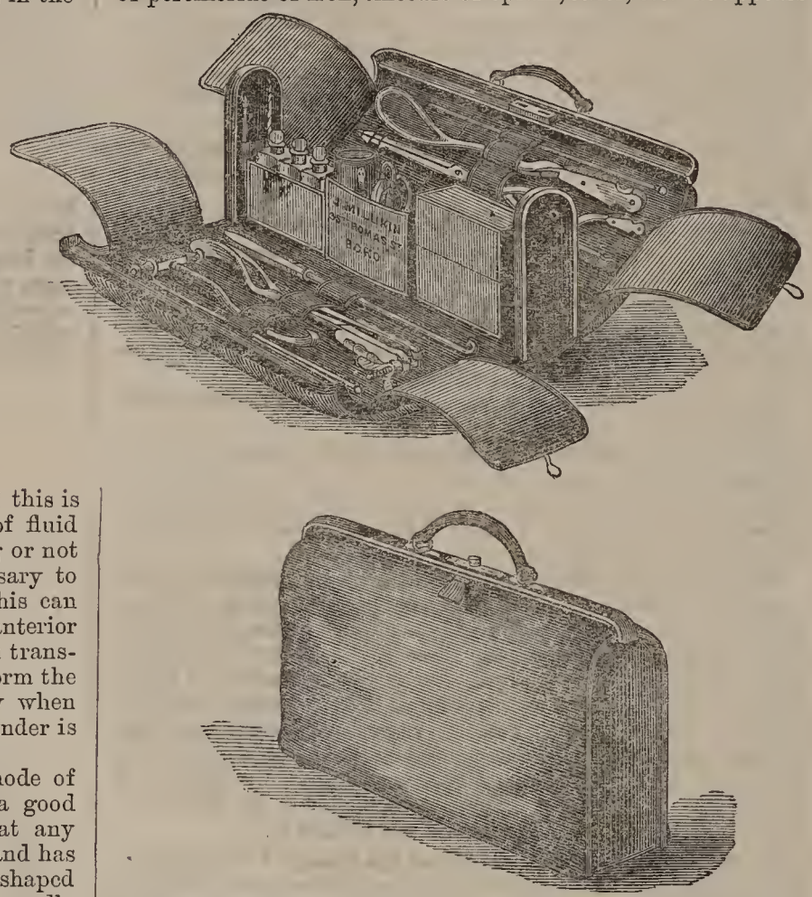
The diameter of the needles, which is one of the most essential conditions for the harmlessness of the use of the aspirator, has been thoroughly attended to, and the sizes are the same as are recommended by the originator of aspiratory punctures. Thus, No. 1 needle (short) is half a millimetre, No. 2 (long) one millimetre, No. 3 (short) one and a half millimetre, and No. 4 (short) two millimetres. The diameters of the trocars are—No. 1, one and a half millimetre; No. 2, two and a half millimetres.

The mode of using the instrument is as follows:—Turn the stopcock to the *oblique* position shown in the diagram, midway between the axes of the two tubes: draw back the piston to its fullest extent, and give the handle a half turn to fix it; in this way a complete vacuum is formed in the barrel. Insert the needle, and connect it with the syringe at the extremity of tube B, and on turning the stopcock in a line with the cylinder aspiration will commence. By turning the stopcock in a line with the tube C, and pushing down the piston, the syringe can be emptied; after which a repetition of the same movements allows aspiration to be repeated.

We have tried this new aspirator of Messrs. Coxeter and Son on several occasions and for different kinds of cases, and have always been well pleased with it. We can without any hesitation strongly recommend it on account of its simplicity, its effectiveness, and varied utility.

## DR. BARNES'S OBSTETRIC BAG.

This compact, neat-looking bag, which has been brought out by Mr. J. Millikin, of St. Thomas-street, Borough, contains Dr. Barnes's long forceps and craniotomy forceps, his perforator, blunt hook and crotchet, and his dilating bags; as well as frænum scissors, female and other catheters, quill for puncturing membrane, chloroform inhaler and drop bottle, uterine syringe and enema tube; and six stoppered bottles for tincture of perchloride of iron, tincture of opium, ether, etc. It appears




to be a very handy, though not new, adaptation of the ordinary dressing or travelling bag.

## THE COLONIST'S COMPACT MEDICINE-CHEST.

Under the above title, Messrs. John Richardson and Co. have brought under our notice an oblong case, about eight inches long, five and a half wide, and two deep, containing twelve kinds of pills and some chlorodyne in stoppered bottles. The pills are—aperient (two kinds), podophyllin, bitter-stomachic, blue pills (two grains each), ipecacuanha (two grains), antimonial (containing each three grains of James's powder), opium (one grain each), henbane (three grains each); expectorant; quinine; and iron pills. Some of these drugs certainly ought not to be given without medical advice, if this can possibly be obtained; but the colonist, or, indeed, the traveller, may be practically out of reach of professional aid, and under such conditions this medicine-chest, with plain simple directions for the use of the medicines, may be of great value. These directions Messrs. Richardson have provided by enclosing in their medicine-chest a "Handy Book of Directions," by Dr. Spencer Thompson. Dr. Thompson gives very clear rules for the use of the drugs, separately or in combination; and also some useful "Additional Directions or Hints to Colonists," and a chapter on "Cookery for the Sick, and Appliances."

## THE WATERPROOF POULTICE AND WET COMPRESS BAG (BROAD'S PATENT).

We have received from Messrs. Maw and Co., Aldersgate-street, a specimen of this "invention"; it consists of a bag made of waterproof cloth on the one side, or back, and of

muslin on the other, the front side, or side of application to the skin. The bags are intended to contain poultices or other moist applications, the waterproof back keeping in the moisture and warmth. They undoubtedly may be found useful, handy, and clean.

## OBITUARY.

### JOHN SAVORY, M.D.,

Was born at Bovey Tracey, near Newton, Devon, in 1798; graduated at Edinburgh in 1824; became a Member of the College of Surgeons in 1829; a L.S.A. in 1829; and would have been on the 26th of this month just fifty years in active practice. During this time he was Surgeon to the Dispensary, and Consulting Surgeon to the Infirmary at Hastings. He died on November 2, at Roselands, Hollington, aged seventy-six.

### JAMES DIMBLE HENWOOD, M.D., L.R.C.S.

We are sorry to record the unexpected death of Dr. James Dimble Henwood, at the age of sixty-two. He had been for many years in practice at Camberwell, and was highly esteemed and universally beloved in the neighbourhood; not only for his professional ability, but for his genuine kindness of heart and genial manners. He belonged to a medical family, for his father was a well-known practitioner in Cornwall, and two of his brothers are now practising their profession in Canada.

## MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the usual monthly examination meetings of the College held on Tuesday, Wednesday, and Thursday, November 10, 11, and 12, the licence to practise Medicine was granted to—

Deeley, William, M.D. | Paul, Ernest Watson.

The licence in Midwifery was granted to—

Hosking, William Henry. | Paul, Ernest Watson.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 16th inst., viz.:—

Anderson, William Stirling, M.B. Glasg., Middlesborough, Yorkshire, student of the Glasgow School.
Brummitt, Robert, L.S.A., Banbury, of Guy's Hospital.
Hart, Philip Neville, M.B. Aber., Norwich, of St. Bartholomew's Hospital.
McCreery, John Alexander, M.D., New York, of the Charing-cross Hospital.
Potts, Edward, L.S.A., Birmingham, of the Birmingham School.
Powell, Harold Macaulay, L.S.A., Wandsworth, of Guy's Hospital.
Roe, Frederic Leyland, Eccles, Lancashire, of the Manchester School.
Rygate, Brougham Robert, L.S.A., Cannon-street-road, of the London Hospital.
Sandiford, Robert Trotman, L.R.C.P. Edin., New Ormond-street, of the Charing-cross Hospital.
Stewart, William Robert Henry, Weymouth-street, of University College.
Symonds, Horatio Percy, L.S.A., Oxford, of University College.
Treves, Edward, King Edward's-road, of St. Thomas's Hospital.
Whitworth, Edward, St. Agnes, Cornwall, of Guy's Hospital.

The following gentlemen passed on the 17th inst., viz.:—

Barlow, John, Chawbent, near Manchester, student of the Glasgow and Edinburgh Schools.
Bull, William Henry, Hammersmith, of St. George's Hospital.
Callcott, James Thomas, Newcastle-on-Tyne, of the Newcastle School.
Carey, John Thomas, Guernsey, of Guy's Hospital.
Chadwick, Alfred, Manchester, of the Manchester School.
Collet, Golding Bird, Worthing, of St. George's Hospital.
Eastall, Henry Francis, L.S.A., Blackbeath, of Guy's Hospital.
Gill, Edmund Richard, L.R.C.P. Edin., Torquay, Devon, of the London Hospital.
Herapath, Charles Kynaston Coathupe, Bristol, of the Bristol School.
Joseph, Sidney Westbrook Iorwerth, St. Leonard's-on-Sea, of St. Thomas's Hospital.
Kebbell, William, Brighton, of St. Bartholomew's Hospital.
Lamb, William Henry, L.R.C.P. Lond., Northampton, of Guy's Hospital.
Mackenzie, John Kenneth, L.R.C.P. Edin., Kingsdown, Bristol, of the Bristol School.
Maples, Reginald, Spalding, Lincolnshire, of St. Thomas's Hospital.
Rossiter, George Frederick, Taunton, of St. Thomas's Hospital.
Scatliff, John Milton Elborough, M.B. Aber., Brighton, of St. George's Hospital.
Stelfox, John Brideoake, Leigh, Lancashire, of the Manchester School.
Swift, William John Cropley, Ely, Cambs., of University College.
Thomas, George Henry Warren, Stoke, Plymouth, of Guy's Hospital.
Tomlin, Robert Francis, L.S.A., Devonport, of Guy's Hospital.
Treharne, John Llewellyn, L.S.A., Weston-super-Mare, of Guy's Hospital.

The following gentlemen passed on the 18th inst., viz.:—

Buckell, Ernest Hook, Chichester, student of University College.
Cobb, Robert, Rochester, of University College.
Derington, John Marmaduke, Leicester, of St. Bartholomew's Hospital.
Ferrier, John Christian, Dublin, of Guy's Hospital.
Fox, Richard Hingston, L.S.A., Stoke Newington, of the London Hospital.
Gibb, Robert Charles, Jamaica, of Guy's Hospital.
Johnston, Wingate Kidd, Anerley, S.E., of Guy's Hospital.
Poynder, George Frederick, Brandon, Norfolk, of St. Thomas's Hospital.
Smith, Herbert Neale, L.R.C.P. Lond., Brighton, of Guy's Hospital.
Squire, William, L S.A., Hanwell, of St. Bartholomew's Hospital.
Taylor, Daniel Peter Hughes, Free Town, Sierra Leone, of King's College.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 12:—

Baker, Benjamin Russell, Andover, Hants.
Beaumont, William Marden, South Binsop, Oxford.
Bevan, Adolphus, Rye-lane, Peckham.
Cooke, Robert, Newport, Monmouth.
Gwatkin, Owen, Grand-parade, Brighton.
Rossiter, George Frederick, Taunton.
Thompson, Harold, Beaumont-street, Oxford.

The following gentlemen also on the same day passed their primary professional examination:—

Bruce, Peter, Middlesex Hospital.
Gonsalves, Manoel Martinho, St. Mary's Hospital.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Colley, N. Davies, M.B., M.S. Cantab., F.R.C.S. Eng.—Visiting Surgeon to the Seamen's Hospital (late *Dreadnought*), Greenwich, *vice* Mr. R. Rendle, resigned.

Greenfield, W. S., M.B., M.R.C.P.—Lecturer on Morbid Anatomy and Practical Pathology and Demonstrator of Morbid Anatomy to St. Thomas's Hospital Medical School.

Hayes, P. A., L.R.C.P.E., L.R.C.S.I.—Junior House-Surgeon at the Royal Free Hospital, Gray's-inn-road.

Hermann, G. E., M.R.C.S., L.S.A.—Resident Medical Officer to the Bethnal-green Workhouse Infirmary.

Snell, George, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—House-Surgeon and Registrar to the Victoria Hospital for Sick Children, Queen's-road, Chelsea, *vice* Mr. Henry G. Brigham, resigned.

### NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—Archibald Adams, M.D., Surgeon, to the *Excellent;* J. S. Dobbyn, Staff Surgeon, Second Class, to the *Duncan*, additional for temporary service, at Yarmouth Hospital; Robert W. Biddulph, Surgeon, to the *Asia*, *vice* Mulvaney, Staff-Surgeon, Second Class, promoted.

War Office—Medical Department.—Surgeon-Major James Balfour Cockburn, M.D., retires upon temporary half-pay; Surgeon James Creed retires upon temporary half-pay; Surgeon Dennis Joseph Canny retires upon temporary half-pay; Staff Assistant-Surgeon Stephen Flood, M.B., from half-pay, to be Surgeon, *vice* William Carpenter, M.D., deceased.

Brevet.—Senior Apothecary John Tyrrell, Madras Medical Establishment, to have the local and honorary rank of Surgeon, on his retirement from the Service.

### BIRTHS.

Baker.—On November 17, at 26, Wimpole-street, Cavendish-square, the wife of W. Morrant Baker, F.R.C.S. Eng., of a daughter.

Hooper.—On November 13, at 67, High-street, Wandsworth, the wife of J. Hooper, M.D., F.R.C.S., prematurely, of a daughter.

Mahomed.—On November 11, at 31, Park-crescent, Brighton, the wife of F. A. Mahomed, M.R.C.P. Lond., of the London Fever Hospital, of a son.

### MARRIAGES.

Bradbury—White.—On November 17, at the parish church of Rodburgh, Gloucestershire, Edward Augustus Bradbury, Esq., of the Bengal Civil Service, to Frances Mary, second daughter of the late Surgeon-Major J. White, M.D., of the Indian Medical Service.

Godwin—Smith.—On November 14, at Holy Trinity, Brompton, Ashton Godwin, M.D., 23, Brompton-crescent, to Florence Matilda, eldest daughter of the late A. F. Ashton, Esq., and widow of R. B. Smith, Esq. late of Fulham.

Greenhill—Carmichael.—On October 22, at the Garrison Chapel, St. George's, Bermuda, Joseph Ridge Greenhill, F.R.C.S. Eng., Army Medical Department, to Adriana, eldest daughter of the late William Scott Carmichael, F.R.C.S. Edin., of Edinburgh.

Jackson—Wan-Vestrant.—On November 17, at St. Mary's, Newington, J. B. Jackson, L.R.C.P., of Birmingham, to Angela Mariana, youngest daughter of the late Ottaviano Wan-Vestrant, of Rome.

Jeanneret—Barnett.—On November 13, at the Abbey Church, Great Malvern, Henry Jeanneret, M.D., formerly Superintendent of the Aborigines of Tasmania, and Commandant of Bass's Straits, to Frances Ann, eldest daughter of William Barnett, Esq., of The Grange, Prince's Risborough, Bucks.

Lupton—Dewe.—On November 12, at St. Helen's, Abingdon, Harry Lupton, L.R.C.P. Lond., M.R.C.S. Eng., of Stratford-on-Avon, to Clara Maria Dewe, daughter of the late John Dewe, Esq., of Benson, Oxon. and Abingdon, Berks.

March—March.—On November 12, at the parish church, Wartnaby, Leicestershire, John March, M.D., of New Wandsworth, Surrey, to Elizabeth, only daughter of the late George March, Esq., of Wartnaby House, Melton Mowbray.

Maxwell—Johnston.—On November 4, at St. Paul's, Valletta, Malta, Edward Cleaver Maxwell, Surgeon, Army Medical Department, son of John Goodman Maxwell, Esq., M.A., Oakhampton, Devon, to Georgina Anne, eldest daughter of the late Captain Gabriel Johnston, R.N., of Ford-park, Plymouth, Devon.

## DEATHS.

Andrews, Charles Gould, Surgeon-Major late Indian Army.

Barclay. Alexander, M.D., Deputy Surgeon-General, at 24, Lancaster-road, Hampstead, on November 13, aged 52.

Chambers, James Walker, M.D., Inspector-General of Hospitals, late 35th Regiment, at Clover-hill, Sligo, on November 14.

Dutton, James, M.R.C.S. Eng., L.S.A., at 2, Theresa-place, Hammersmith, on November 10, aged 56.

Hawkins, James Stillwell, M.R.C.S., at his residence, 17, Tredegar-place, Bow, on November 8, aged 37.

Nicol, John, M.D., of New Cross, late Physician to St. John's Hospital, La Paz, Peru, also Surgeon-General to the Medical Tribunal of that city, on November 10, aged 76.

Henwood, James Dimble, M.D., at his residence, 1, The Terrace, Camberwell, on October 9, in his 62nd year.

Milles, George Ridley, M.R.C.S., eldest surviving son of the Rev. Thomas Milles, of St. Margaret's, Yalding, Kent, at Coggeshall, Essex, on November 11.

Robertson, George Samuel, M.A., only son of the late Archibald Robertson, M.D., very suddenly, at Lyme Regis, Dorset, on November 12, aged 49.

Roots, Cecilia, wife of William Sudlow Roots, F.R.C.S., of Kingston-on-Thames, on November 11, aged 64.

Smith, Edward, M.D., LL.B., B.A., F.R.C.P., F.R.C.S., F.R.S., at his residence, 140, Harley-street, on November 16, aged 55.

Williams, Mary, widow of the late John Williams, M.D., J.P., of Beverley, Yorkshire, at Bridlington Quay, on November 15, aged 84.

Wilson, Henry Octavius, M.R.C.S. Eng., L.S.A., of Alfred House, Birkenhead, formerly Civil Assistant-Surgeon at Mymensingh, East Bengal, and youngest son of the late John Grant Wilson, Esq., of Bristol, at the residence of his brother-in-law, 22, Berkeley-square, Bristol, on November 10, aged 35.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Bristol Dispensary.—Additional Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 23, Clare-street, Bristol, on or before December 3.

Derbyshire General Infirmary.—Assistant House-Surgeon. Applications, with testimonials, to the Secretary, Mr. Samuel Whitaker, 4, Victoria-street, Derby, on or before November 21.

District Infirmary, Ashton-under-Lyne.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, on or before December 14.

Huddersfield Infirmary.—House-Surgeon. Candidates must be fully qualified, and unmarried. Applications, with testimonials, to the Secretary, on or before November 23.

National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.—Medical Registrar. Applications, with testimonials, to the Secretary, on or before December 2.

Queen's Hospital, Birmingham.—Resident Secretary and General Superintendent. Candidates must be unmarried. Applications, with testimonials, to the Chairman of the House-Committee, at the Hospital, on or before November 25.

Trinity College, Dublin.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

University of Durham College of Medicine, Newcastle-on-Tyne.—Lecturer on Anatomy, Lecturer on Medical Jurisprudence, Lecturer on Botany, and Demonstrators of Anatomy. Applications, with testimonials, to the Secretary, on or before November 21.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Axbridge Union.*—Mr. Edward Dood has resigned the Second District area 5130; population 1791; salary £30 per annum.

*Stratford-on-Avon Union.*—Mr. A. H. Dowson has resigned the Alveston District; area 11,798; population 2550; salary £55 per annum.

*Wem Union.*—The Shawbury District is vacant; area 17,174; population 2635; salary £40 per annum.

### APPOINTMENTS.

*Chesterfield Union.*—Barnard J. Lee, L.S.A., to the North Wingfield District.

*Newton Abbot Union.*—Arthur D. Parsons, L.R.C.P. Edin., M.R.C.S. Eng., to the Dawlish District.

*Norwich Union.*—Horace Turner, M.R.C.S. Eng., L.S.A., to the Eighth District.

*Stepney Union.*—Henry Beattie, M.D. St. And., M.R.C.S. Eng., to the Union.

In the absence (through ill-health, we regret to say) of Professor Inglis, Dr. Angus Fraser has been appointed by the Medical Faculty to lecture on Midwifery at the Aberdeen University during the present session.

"The British Pharmacopœia" has been selected as the subject for the annual prize offered by the Council of the Apothecaries' Hall of Ireland, to be competed for by apprentices of apothecaries in May next.

It was decided last week by an influential meeting of the citizens of Dublin, presided over by the Lord Mayor of that city, to present a memorial to the Lord Lieutenant urging him to obtain from the Government the appointment of a Royal Commission to inquire into the condition of the River Liffey.

Upon a recent vacancy, by fluxion of time, in the office of Surgeon-Accoucheur to the Sheffield Public Hospital and Dispensary, the governors, at a special general meeting, decided that, inasmuch as there was now a hospital for women in Sheffield, midwifery belonged to it, and therefore to discontinue midwifery. No Surgeon-Accoucheur was consequently elected, but Dr. Mason, the late holder of the office, was thanked for his past services.

A meeting of the Society of Medical Officers of Health will be held this day (Saturday, November 21), at 7.30 p.m., at the Scottish Corporation Hall, Crane-court, Fleet-street, when Dr. Tripe will read a paper "On the Statistics of Deaths from Epidemic Diseases in England and the Metropolis for Thirty Years"; and Dr. Dudfield will call attention to the by-laws for regulating slaughter-houses adopted by the Metropolitan Board of Works, and will move a resolution thereon.

Scarlet Fever in a Public School.—Scarlet fever being very prevalent at the Norwood Schools, the Guardians of Lambeth have resolved to suspend all visitations to the Schools during the epidemic.

Enemata of Chloral in the Vomiting of Pregnancy.—Dr. Simmons, of the Yokohama Hospital, Japan, relates four cases in which chloral administered by the rectum in thirty-grain doses, in mucilage, proved of speedy efficacy. In future cases he intends commencing with larger doses, and he believes that the remedy so employed will be found useful in most cases of nervous or sympathetic vomiting, where there is no inflammation present.—*New York Medical Record*, June 1.

Penalty on Advertising Doctors.—The following resolution was adopted by the Chicago Medico-Historical Society on August 2 last:—"Any physician who shall by any advertisement, placard, handbill, circular, pamphlet, book, card, or any public means, announce himself or herself as possessing unusual or peculiar skill in any branch of medicine or surgery, or who shall assume any title not specially granted by a regularly chartered college, shall not be eligible to membership in this Society; and the name of such physician shall not be permitted to appear in the list of regular physicians published in the 'Chicago Medical Register'; provided, that a physician may be permitted to affix or connect with his or her name the title or designation of a specialty when he or she shall have ceased to do any practice not pertaining to such specialty, and not otherwise."

Medical Men and Hospitals in Russia.—According to the *Golos*, there is in Russia only one medical man to every 17,800 inhabitants; in the government of Perm and the district of Cherdink there is only one medical man to every 60,000 persons. In the whole empire there is only one hospital to every 175,000 inhabitants, one lying-in institution to every 6,000,000 pregnant women, one foundling hospital to every 1,350,000 foundlings, one lunatic asylum to 390,000 lunatics, and one asylum to every million of deaf and dumb. In the Russian army, on the contrary, there is a hospital for every 5000 men; while in the Prussian army there is one for every 1250 men. In England there is a medical man to every 3150 individuals.

Brookwood Asylum. — Presentations to Dr. Edward Swain.—Dr. Swain, the newly appointed Superintendent of the Three Counties Asylum, Arlesey, Beds, has been given a dinner and a silver cup by some of his friends as a token of their esteem. The dinner was presided over by Dr. Wilson, Medical Officer of Health for North Warwickshire, and the vice-chair was filled by G. H. Hull, Esq., County Coroner. The Asylum staff presented Dr. Swain with a large and handsome dining-room clock, a pair of vases, and an épergne and side-glasses. The presentation took place at a theatrical performance in the new recreation-hall of the Asylum. Dr. Brushfield performed the pleasant task of making the presentation, and in his address bore the strongest testimony to Dr. Swain's private and public worth. One of the inmates

of the Asylum came forward, and begged in the name of his fellow-patients to thank Dr. Swain for his great kindness and care, and to wish him success in his new post.

CLOSURE OF THE PARIS FACULTY OF MEDICINE UNTIL DECEMBER.—Another of the "students' rows," which have of late been so frequent, has given rise to this measure, which will press heavily upon the peaceably disposed among the students, especially as the clinical lectures are also stopped. The object of the hostile demonstration on the present occasion has been Prof. Chauffard, who is very unpopular among the students in consequence of his clerical and legitimist proclivities. He has been recently appointed Inspector of Medical Studies as successor to the late Prof. Denonvilliers, and it was rumoured that he was about to be appointed Dean in place of Prof. Wurtz, who was erroneously said to have resigned in consequence of some defalcations among his subordinates, owing to insufficient supervision on his part. Prof. Wurtz was received with uproarious applause, while Prof. Chauffard could not get a hearing owing to the tumultuous cries raised against him. It is said that many students who had nothing to do with medicine took part in this disgraceful demonstration.

PROFESSIONAL EXAMINATIONS.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the "pass" examination for the diploma of Membership of the Royal College of Surgeons on the 13th instant, viz.:—1. Give the diagnosis, the anatomical and pathological characters, and the treatment of adenoid tumours of the breast. 2. Describe what is meant by angular curvature of the spine; and what are the local changes which precede and accompany it? 3. Describe the femoral ring, and mention the parts exposed to injury in the operation for femoral hernia. 4. How is hæmorrhage arrested spontaneously, in a partially divided, a completely divided, and a torn artery? 5. At what parts of the lachrymal passages may obstruction occur? State what are the symptoms and treatment of such obstructions. 6. Describe the operation of tying the brachial artery in the middle of the arm. The following were the questions on the Principles and Practice of Medicine submitted to the candidates on the 14th inst., viz.:—1. A patient is taken more or less suddenly ill, and is seen after four or five days have elapsed, and is then found much prostrated, with a furred tongue, quick pulse, hot skin, and other symptoms of fever. What are the diseases on which the symptoms may depend? and how would you severally distinguish them? 2. What are the different causes which may give rise to vomiting and spitting of blood? how would you distinguish them? and what treatment would you adopt in each? 3. What are the chief preparations in the British Pharmacopœia into which opium and morphia enter? State the proportions of the several ingredients in each, the doses in which the different preparations should be given, and the purposes for which they are severally more particularly adapted. Write a prescription for an anodyne draught, and for a mixture to check sickness and vomiting.

A PATIENT, complaining of anæsthesia of one side, and fearing the approach of paralysis, invited a native doctor to see him, who braced all his joints, the muscles of his extremities and the soles of his feet with a carpenter's brace, a round knob of wood taking the place of the gimlet. The result, as might have been expected, was extensive and deep suppuration of the skin in the parts acted upon. I was called in to dress his wounds. This is quite a common and authorised procedure among the faculty.—*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Lyson.*—1. Yes.

*Erratum.*—In the past list of the primary examination of the College of Surgeons, published in our last number, the name of Alfred Edwin *Livsey* was printed Alfred Edwin *Liosey*.

*Titus.*—Nicholas Leonicenus, a physician, was born in the Venetian States in 1428. He was sixty years Professor of Medicine at Ferrara, and the first who translated Galen into Latin. He died in 1524. His principal works are "An Examination of the Errors of Pliny's Natural History," printed in 1532, and a "Treatise on the French Disease,"—both in Latin.

*A Young Member.*—The following is a copy of the declaration of Membership which you state you signed, on a recent joyful occasion, without first reading, viz.:—

"I, A. B., of....., do solemnly and sincerely declare, that while a Member of the Royal College of Surgeons of England I will observe the by-laws thereof; that I will obey every lawful summons issued by order of the Council of the said College, having no reasonable excuse to the contrary; that I will demean myself honourably in the practice of my profession; and to the utmost of my power maintain the dignity and welfare of the College.—Declared in the presence of the Court of Examiners this.....day of.....18..... *Witness*....."

*W. W.*— "Thou art a bile, a plague-sore, an
Emboss'd carbuncle in my corrupted blood."—*Shakespeare.*

*A Country Subscriber.*—Thomas Linacre, or Lynacre, was born at Canterbury about 1460. He was successively physician to four sovereigns, and by his interest with Henry VIII. procured letters patent for the foundation of the Royal College of Physicians in London. At the close of life he entered into orders, obtained the Precentorship of York, and became a Prebend of Westminster. He died in 1524.

*G. F. F.*—Dr. John Friend wrote the "History of Medicine" during his confinement in the Tower, in 1675.

*Asmus.*—Raphael Thorius, a French physician, whose real name was Thoris. He settled in England. He wrote a Latin poem in praise of tobacco, entitled "Hymnus Tabaci," 1627, which was reprinted in the "Musæ Anglicanæ," 1697. He died of the plague at London in 1625.

*O. S., Canterbury.*—*Monthly Journal of Medical Science*, June, 1854.

*Penelope, Leicester.*—Dr. Christison's "Treatise on Poisons," and the *Medical Gazette*, vol. viii., pp. 577 and 797.

*V. N. C.*—Dr. John Bartlett is the President of the Chicago Society of Physicians and Surgeons.

### THE ASHLEY FUND.

The following additional subscriptions have been received for this fund:—

| | £ | s. | d. |
|---|---|---|---|
| Sir Wm. Jenner, Bart. ... | 5 | 0 | 0 |
| Sir Wm. Gull, Bart. ... | 5 | 0 | 0 |
| Sir J. Cordy Burrows ... | 2 | 2 | 0 |
| Dr. Quain ... ... ... | 3 | 3 | 0 |
| J. Smith, Esq., Notting-hill | 3 | 3 | 0 |
| G. Tinson, Esq., Sandown | 2 | 2 | 0 |
| A Friend ... ... ... | 3 | 0 | 0 |
| J. T. Penhall, Esq., F.R.C.S., St. Leonard's ... ... | 5 | 5 | 0 |
| Frank Godfrey, Esq., Connah's-quay ... ... | 0 | 10 | 6 |
| W. H. Manifold, Esq., Liverpool... ... ... | 1 | 1 | 0 |
| Dr. R. Payne Cotton ... | 1 | 1 | 0 |
| J. Roche Lynch, Esq. ... | 1 | 1 | 0 |
| Dr. Satchell, Kew... ... | 2 | 2 | 0 |
| Dr. Bull, Hereford ... | 2 | 2 | 0 |
| A Friend, by Dr. C. Swabey Smith ... ... | 5 | 0 | 0 |
| S. Smith, Esq., Reddings | 3 | 0 | 0 |
| John S. Mould, Esq. ... | 2 | 2 | 0 |
| Dr. E. Nash... ... ... | 5 | 5 | 0 |
| Mrs. J. C. Morice ... ... | 1 | 1 | 0 |
| Miss Frost ... ... ... | 1 | 0 | 0 |
| Miss E. Frost ... ... | 1 | 0 | 0 |
| J. Marriott, Esq., Kibworth | 2 | 2 | 0 |

### THE LATE DR. LANKESTER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the biographies of the late lamented Dr. Lankester an important matter is omitted that had a great influence on his career; for it fully accounts for "his not layiug himself out for practice," and for his being "shut out" as physician to St. Mary's Hospital. This, accordiug to the orthodox system of election, after his rejection at the London College of Physicians, was a matter of course. At this important crisis, when we are bound hand and foot to the corporations by means of an unrepresentative Medical Council, a brief recital of the circumstances, as published by himself after his rejection in 1847, in a pamphlet now before me, cannot fail to be useful and instructive. I give a brief outline of the occurrence as related in the above-named pamphlet.

Dr. Lankester was distinguished for great industry and talent; he had obtained honours in ten of the classes at University College, and had contributed numerous papers to the medical journals; Dr. Lankester passed the examination for the extra(a) liceuce at the College of Physicians in 1841, and in 1847 he presented himself to be examined for the licence, believing that, as he was a member of the College and had passed one examination, he would only be called upon to answer "practical" questions. The Doctor was rejected, and the most amusing part of the affair was, that one of the examiners whom he supposed had a great share in his rejection had six years before given him the following certificate:—"I can fully testify to his competeucy to fill the office of physician to a Loudon dispensary with credit to himself, and much advantage to the objects of the institution." Dr. Lankester, who lectured on materia medica, was also examined by a rival lecturer on this subject (Parliamentary Evidence, 1847). The subjoined is from Dr. Lankester's pamphlet:—

"If I were a young man who had only had the five years' study which the College requires, I might consistently have been sent back for a year; but what must be thought of the value of the college examination which supposes that the knowledge it requires may be got up in twelve months, but could not be gained by eighteen years' hard study and diligent observation? At the same time, however, I am not ignorant of the fact that there are gentlemen in London who in less than a year would engage to prepare me, as they have done hundreds of other members of the College, in such a manner as to insure my passing their examinations. I have never, however, condescended to the practice of cramming in the four examinations that I had previously submitted to and passed. I conscientiously regard myself at this moment as fitted to practise my profession; and if the College examinations are of a nature rather to test the schoolboy qualifications which may be got up by a cram, than those which have been gained by reading and experience at the bedside, I can only express my regret that public confidence should have been given to examinations which every member of the College must feel are not worthy of it."

Believing Sir, that this rejection at the London College of Physicians had much influence on his after career, and believing also that his rejection under the circumstances redounded rather to his credit than to his disgrace, I ask you to insert this letter. I am, &c., EDWARDS CRISP.

29, Beaufort-street, Chelsea, November 10.

(a) This extra licence enabled him to practise seven miles out of London, but not within the sacred circle.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Chicago Medical Journal—Bulletin Général de Thérapeutique—Aberdeen Daily Free Press—Irish Hospital Gazette—The Central News—The Pocket Edition of the Gleaner—Food, Water, and Air—Boston Journal of Chemistry—Chemist and Druggist—The City Review—Liverpool Daily Courier.

COMMUNICATIONS have been received from—

The Secretary of the London Anthropological Society; The Registrar of the Apothecaries' Hall, London; Mr. H. Thompson, Hull; Mr. J. M. Morris, London; Mr. G. Savery, Hollington; Mr. Gordon Brown, London; Dr. Gavin Milroy, Richmond; The Registrar-General, Edinburgh; Messrs. Dietz and Co., London; Dr. W. S. Greenfield, London; Mr. H. Courtenay Fox, Stoke Newington; Mr. W. Pickering, Malton; Mr. W. Grey, Chippendale; Mr. J. Wylie, Belfast; Mr. E. Force, Exeter; Mr. G. E. Herman, London; Dr. W. P. Kirkman, Barming-heath; Mr. R. Ellis, London; Dr. Irving de Lisle, Guernsey; Mr. J. E. Erichsen, London; Dr. E. Hart Vinen, London; Dr. Nevins, Liverpool; Mr. T. P. Pick, London; Drs. J. N. Vinen and W. H. Corfield, London; Mr. W. Donald Napier, London; The Registrar-General, Edinburgh; Mr. A. E. Livsey, Liverpool; Dr. Robert Liveing, London; Dr. T. Stevenson, London; Captain Scoones, London; Dr. Eustace Smith, London; Dr. John Lewtas, Liverpool; Mr. R. Kershaw, London; Dr. Semple, London; Mr. J. Chatto, London; Dr. Edis, London; Dr. Sparks, London; Mr. Morris, London.

BOOKS AND PAMPHLETS RECEIVED—

Gross on Syphilis in its Relation to the National Health—Nevins's Statement of the Grounds upon which the Contagious Diseases Acts are Opposed—Beeton's Penny Book of Cab Fares—Acland on the Influence of Social and Sanitary Conditions on Religion—Maunder on Removal of Tumour of Portions of the Lower Jaw—Spottiswoode on the Polarisation of Light—Foster and Balfour's Elements of Embryology—Frey's Histology, translated from the fourth German edition by A. E. J. Barker—Stillé's Therapeutics and Materia Medica, two volumes—Davis's Clinical Lectures on Various Important Diseases, second edition—Cohen on Croup in its Relations to Tracheotomy—The Million on the Rail, by G. W. Jones—Lattimer on the Necessity of Perfect and Prolonged Isolation for Stamping-out Contagious and Infectious Diseases—Sur un Nouveau Procédé Opératoire appliqué à la Hernie Ombilicale Etranglée, par M. le Dr. Demarquay.

## APPOINTMENTS FOR THE WEEK.

*November* 21. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

23. *Monday*.

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic 1½ p.m.

Medical Society of London, 8 p.m. Dr. Thorowgood, "On Gastric Vertigo." Dr. Leonard Sedgwick, "On a Case of Pulmonary Extravasation." Mr. T. S. Dowse, "On some Points of Clinical and Pathological Interest in an Obscure Case of Blood Poisoning."

24. *Tuesday*.

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. G. G. Gascoyen, "Cases of Syphilitic Re-infection, with Remarks."

25. *Wednesday*.

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), 8 p.m. Dr. Barnes will exhibit a Specimen of Solidified Fat drawn from a Cyst by the Aspirator. Mr. Adams, "On a Case of Gunshot Wound of the Abdomen." Dr. Daldy, "On Fever."

26. *Thursday*.

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

27. *Friday*.

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Dr. Poore will exhibit a patient with Paralysis of the Serratus Magnus Muscle. Mr. Hulke, "On a Case of Poisoning by Chloral." Mr. H. Lee, "On a Case of Tumour removed by Elastic Ligature." Dr. R. J. Lee, "On a Rare Form of Cutaneous Disease in a Child."

Queekett Microscopical Club, 8 p.m. Mr. John E. Ingpen, "On Personal Equation with reference to Microscopy."

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, November* 14.

### BIRTHS.

Births of Boys, 1215; Girls, 1155; Total, 2400.
Average of 10 corresponding years 1864-73, 2240·5.

### DEATHS.

| | Males. | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 808 | 709 | 1517 |
| Average of the ten years 1864-73 | 745·3 | 707·5 | 1142·8 |
| Average corrected to increased population | ... | ... | 1593 |
| Deaths of people aged 80 and upwards | ... | ... | 48 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 2 | 7 | 3 | 4 | 1 | 5 | 1 | 1 |
| North ... ... | 751729 | ... | 3 | 19 | 2 | 5 | ... | 4 | 1 | 5 |
| Central ... | 334369 | ... | ... | 10 | ... | ... | ... | 4 | ... | 1 |
| East ... ... | 639111 | ... | 5 | 32 | 1 | 6 | 2 | 8 | 2 | 3 |
| South ... ... | 967692 | ... | 9 | 29 | 6 | 6 | 3 | 7 | 3 | 8 |
| Total ... ... | 3254260 | ... | 19 | 97 | 12 | 21 | 6 | 28 | 7 | 18 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·966 in. |
| Mean temperature | 41·1° |
| Highest point of thermometer | 58·5° |
| Lowest point of thermometer | 29·8° |
| Mean dew-point temperature | 37·3° |
| General direction of wind | Variable |
| Whole amount of rain in the week | 0·04 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 14, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Nov. 14. | Deaths Registered during the week ending Nov. 14. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2400 | 1517 | 58·5 | 29·8 | 41·1 | 5·06 | 0·04 | 0·10 |
| Portsmouth ... | 120436 | 26·8 | 67 | 30 | ... | ... | ... | ... | 0·18 | 0·46 |
| Norwich ... ... | 82257 | 11·0 | 51 | 32 | 56·2 | 29·0 | 40·4 | 4·66 | 0·58 | 1·47 |
| Bristol ... ... | 192889 | 43·3 | 134 | 72 | 58·0 | 28·8 | 41·6 | 5·33 | 0·06 | 0·15 |
| Wolverhampton ... | 70896 | 20·9 | 50 | 30 | 56·4 | 28·0 | 40·4 | 4·66 | 0·22 | 0·56 |
| Birmingham ... | 360892 | 43·0 | 284 | 159 | 58·3 | 28·2 | 40·2 | 4·55 | 0·09 | 0·23 |
| Leicester ... ... | 106202 | 33·2 | 81 | 59 | 57·0 | 28·8 | 40·0 | 4·44 | 0·10 | 0·25 |
| Nottingham ... | 90894 | 45·5 | 59 | 36 | 56·8 | 27·7 | 40·3 | 4·61 | 0·03 | 0·08 |
| Liverpool ... ... | 510640 | 98·0 | 375 | 330 | 59·9 | 31·5 | 43·8 | 6·55 | 0·30 | 0·76 |
| Manchester ... | 355339 | 82·8 | 249 | 183 | 58·0 | 28·0 | 40·1 | 4·50 | 0·21 | 0·53 |
| Salford ... ... | 133068 | 25·7 | 130 | 81 | 58·0 | 25·8 | 40·8 | 4·83 | 0·23 | 0·58 |
| Oldham ... ... | 86281 | 18·5 | 80 | 59 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 152 | 79 | ... | ... | ... | ... | ... | ... |
| Leeds ... ... | 278798 | 12·9 | 192 | 147 | 58·0 | 32·0 | 42·1 | 5·62 | 0·00 | 0·00 |
| Sheffield ... ... | 261029 | 13·3 | 210 | 133 | 58·0 | 30·0 | 41·9 | 5·50 | 0·04 | 0·10 |
| Hull ... ... ... | 130996 | 36·0 | 86 | 70 | 57·0 | 28·0 | 40·4 | 4·66 | 0·38 | 0·97 |
| Sunderland ... | 104378 | 31·6 | 76 | 51 | 66·0 | 30·0 | 44·7 | 7·06 | 0·37 | 0·94 |
| Newcastle-on-Tyne | 135437 | 25·2 | 101 | 73 | 56·0 | 29·0 | 38·8 | 3·77 | 0·15 | 0·38 |
| Edinburgh ... ... | 211691 | 47·8 | 134 | 99 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 387 | 349 | ... | ... | ... | ... | ... | ... |
| Dublin ... ... | 314666 | 31·3 | 180 | 150 | 63·9 | 25·3 | 43·5 | 6·39 | 0·11 | 0·28 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5478 | 3733 | 66·0 | 25·3 | 41·3 | 5·17 | 0·18 | 0·46 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·97 in. The highest was 30·36 in. on Sunday morning, the 8th inst., and the lowest 29·62 in. on Friday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

ADDRESS ON THE

## FORMS OF DISEASE INCLUDED UNDER THE TERM "PURPURA HÆMORRHAGICA."(a)

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

In the course of the development of medical science it has naturally happened, in many instances, that certain allied diseases, differing in some degree as to cause and as to pathological condition, have become classified under one term. Thus measles and scarlet fever were for centuries considered as one and the same disease; nor was the error detected until Morton, the contemporary of Sydenham, drew the distinction between the two maladies and gave to them distinct names. It was thus that, in the study of the disease scarlet fever itself, the non-contagious malady Rosalia Idiopathica was classified, even to our own time, with the true contagious scarlet fever. It was thus, again, that typhus and typhoid fevers were confounded together until, under the labours of Dr. Patrick Alexander Stewart and Sir William Jenner, they were shown to be two perfectly distinct affections.

In the short practical discourse I am about to read—and it is very short and very practical—my object will be to show that, under the term "Purpura Hæmorrhagica," we include what may fairly be considered certain very different pathological states, and, in a word, different diseases, all of them presenting, it is true, allied phenomena, but each definitively distinct when it is known—each having a distinct pathology and etiology, each a distinct diagnosis and prognosis, and each requiring a distinct treatment.

So far it has been the prevailing idea that a fluid condition of the blood is the one distinguishing character of the malady under consideration. Hence, when we have seen purpuric spots on the body of the patient, our first care has been to provide, both by local and general measures, against hæmorrhage; and our fear has been that from some local external injury, or from some internal break of contiuuity of structure, there shall be escape of blood and death from persistent flow.

For many years past I have had before me cases of disease thus classified and recognised as one typical form of disease. My present object is to show that under such head I have observed three perfectly distinct types of disease.

### TYPES OF PURPURA.

1. *Aqueous Purpura.*—There is a form of purpura of the character just defined; it is probably the most serious, and possibly it is the most common type.

The pathological character of this type is special. The blood of the patients who are subject to it is in a state of extreme fluidity, the fluidity being due to an excess of water, so that the colloidal parts of the blood, and also the saline parts, are diluted to an unnatural degree. I do not know of any proof that in these cases there is an actual deficiency of fibrine. If there were, the muscular structure of the patient would in all instances undergo modification—a condition by no means necessary, since the disease may be seen in persons whose muscular development and muscular power is of the most perfect order. But in the blood the relative natural proportions of the water to the colloid is disturbed; the water is in excess, the cohesive attraction between the particles of the colloid is reduced, and the blood, imperfectly protected by the plastic fibrine—or, as Plato would say, by the tenuity of its fibres,—is ready at any weak point to escape, to run from the vessels in fine stream, or to diffuse, iu the form of purpuric blot, into the peripheral surface of vascular organs or on the surface of membranes.

In some experiments I once conducted on the production of artificial dropsy by the injection of water into the peritoneal cavity of an animal, this fluidity of blood, by mere dilution of water, was induced in every case, the addition of water to the extent of one-fifth of the weight of the animal causing a fatal dilution. The blood in these instances was rendered feebly coagulable or even nou-coagulable; it flowed with rapidity and continuance from an open wound, and it was easily effused under the cutaneous surface.

In the human subject suffering from this form of disease the same condition obtains. In one instauce, in which the purpuric state was connected with serous dropsy, I caught a few ounces of blood. The fluid had a specific gravity of 1035, or only 25 degrees above the specific gravity of the urinary secretiou of the same patient. The blood yielded no fibrine on agitation; the corpuscles were large, pale, and globular; the amount of water was increased to 860 parts in the 1000, while the fibrine was relatively reduced to one part in 2000. To the type of disease thus characterised I propose to give the name of *Aqueous Purpura.*

The eruption which accompanies most cases of aqueous purpura is in some cases not developed at all, although the conditions for its manifestation are strongly present. The patient knows that his blood will flow with dangerous freedom if he prick or cut himself, and he will tell you of members of his family who are scorbutic; but he may not have any eruption, and may pass through life suffering only what is called the hæmorrhagic diathesis. The reason of this is that the colouring matter of the blood is retained by the corpuscle, and that the fibrine is equally diffused through the volume of blood. The blood consequently makes its course freely until some other factor intervenes. A prick, a slight blow, may be all-sufficient for this purpose, or even pressure induced by the dress. I had one patient in whom a sudden exposure to cold would bring out the characteristic purpuric eruption. In these cases, if the skin be frozen in a small point by ether spray, the purpuric spot will follow; and I have found this a valuable mode of diagnosis in the obscurer forms of the disease.

The eruption is easily developed by other causes in those who, from the condition of their blood, are prepared for it. Excess of alcohol or excessive mental or physical fatigue will induce it. The character of the eruption when it occurs is distinctive—it is diffuse, irregular, and faint. It partakes of the character of a superficial bruise, and it passes through the phases of colour presented usually by an ordinary bruise, but it is unattended by swelling.

What has struck me often is, the immunity with which persons affected with aqueous purpura go through life. They sometimes carry with them exceeding good looks, they are fairly strong, and they are usually well nourished; if they suffer from great loss of blood, they recover rapidly when the bleeding has been checked, and even regain colour. I doubt, however, whether, in true examples of this disease, the blood ever becomes of natural consistency and quality.

The remote origin of these examples of purpura from extreme fluidity of the blood will, I believe, be ultimately fouud to be ceutral and nervous. It is among the most marked diseases of the hereditary type, and the hereditary quality of the malady is generally diffused through a number of members of a family to an exteut specially striking. I was called a few years since to arrest hæmorrhage after a tooth-extraction in one of these subjects, and I learned that six members of the family had suffered from aqueous purpura. One had died from loss of blood from a leech-bite; another had extreme purpuric eruption; two had suffered hæmorrhage from the gums, and had shown purpuric spots; and this one all but died from the escape of blood which was practically uncoagulable until syncope, from actual loss of blood, supervened. In two cases which have come before me in which no decided hereditary tendency could be discovered, the patients (in both cases adults) attributed their disease to mental causes—that is, to causes acting intensely on the mind. One attributed the disease to a severe fright occurring during childhood; the other to sudden and excessive grief. I believe both were correct in their surmise, because they based it on clear and reasonable evidence of facts. But how the blood can be physically modified by mental shock I do not in the least assume to know.

2. *Saline Purpura.*—The second form of purpura to which I would direct attentiou I would designate as *Saline Purpura.* In this type of the disease there is no deficiency of fibrine in the blood, but the colloidal substance is held in a state of undue solution by an excess of soluble saline material. The synthesis of this disease was well brought out iu some of my early experiments, in which the blood was rendered preternaturally fluid by the administration of alkaline salts. The distinguished Hexham observed a similarly induced condition in the human subject, in the case of a man who habituated himself to the taking of bicarbonate of ammonia until his bloo became permanently fluid. The same condition has again been observed on a large scale in the scurvy produced by too

(a) Delivered before the Medical Society of London on Monday, November 9, 1874; V. de Méric, Esq., President, in the chair.

long a subsistence on foods preserved by salines. Once more, the same condition may be observed in certain stages of alcoholic disease. Lately I have seen a similar state induced by the habitual abuse of chloral.

In these cases the specific gravity of the blood is increased, and the attraction of cohesion in the fibrine is suspended by the presence of an agent which holds the water in too close combination with colloidal matter. In this condition the fibrine, the albumen, and the colouring matter of the blood will diffuse through the membranes, and the exudation of blood at feebly resistant surfaces is easily effected; hence the bleeding spongy gum in well-marked illustrative forms of this malady. Persons suffering under this condition are the true scorbutics of the older school of physic. They furnish the patients whose blood, when our forefathers drew it, as they usually did, was seen to separate, while it was flowing, into fibrine and serum, as fibrine separates under our hands when we make the experiment of causing precipitation of the corpuscles by adding a saline solution to blood newly drawn.

There is in this form of purpuric disease no evidence of hereditary tendency. On the contrary, the evidence is to the effect that the malady has been induced by some error of diet or error of life.

The eruption when it occurs in these cases is more sharply marked than in the other forms of purpura. It is not induced by injury, but breaks out, I may say, spontaneously. Often there is no eruption of any duration; but there is always a tendency to exudation of blood—from the gum, from the throat, and occasionally from the lung.

3. *Vascular Purpura.*—In the third form of purpura I have signalled as distinct, there is always either an eruption, or so marked a disposition to eruption that the smallest physical accident will induce the purpuric spot. The spot in this instance is more than a mere discoloration; it is a large blot, and with the discoloration, which is deep coloured, there is swelling, and after a time firmness of structure at the point of the swelling. The subjects of the disease are generally well nourished, and they are not necessarily disposed to the malady from the hereditary proclivity. They are commonly young persons, children in their first years. They are disposed to be fat, and if they are carefully inspected while undressed they are found to present deformity of body more or less marked: the spine will show a slight curvature, or a lower limb will be somewhat distorted, or the chest will be badly developed and misshapen. The blood in these examples of purpuric affection is, as far as I can detect, perfectly natural. There is no history that these subjects have suffered from hæmorrhage of any kind, although they are held to be in perpetual danger of this occurrence. If a little blood be drawn from them for examination it is found to coagulate quickly and firmly. The colour of the blood is natural, and the corpuscles are of natural size and outline—in fact, the very character of the purpuric blotch is proof of the plasticity of the blood. The effused blood thrown out into the subcutaneous tissue undergoes coagulation there, whence the cause of the hardness and swelling of the eruptive blotch. There is, in fact, no disease of the blood.

The origin of this form of purpura I attribute to some change in the vessels of the minute circulation. Either the minute vessels are paralysed, or there is some degeneration of structure in them, so that under slight mechanical pressure they permit the blood to flow through them, in mass, into the surrounding tissue. On the whole, I incline to the view that the cause of the failure of the minute vessels to retain their blood under slight mechanical blow or quick pressure is due to structural change rather than to nervous deficiency. But I speak *sub judice*, and rather as suggesting a new and very interesting subject for future observation, than as offering any decided opinion of my own on this particular point. The reasons I have for the view to which I incline are, that in the subjects of the type of purpuric disease now being described there are no necessary attendant symptoms of vascular paralysis, while the paralysing effects of extreme cold, from the action of ether spray, do not lead to the eruption from effusion of blood. I look upon it, therefore, that when the effusion actually does take place there is mechanical rupture of the minute vessels, and that the subcutaneous hæmorrhage lasts until, by the process of coagulation of the blood, the exudation is arrested.

To this type of disease I propose to give the name of *Vascular Purpura*.

## ON COMBINATIONS OF TYPES, AND ON THE PATHOLOGY OF STIGMATA.

In the above descriptions I have related what seem to me to be the three pure distinctive types of purpuric disease. I have, however, seen combinations of types; and one of these combinations—of the first or aqueous with the third or vascular—calls for special notice. I believe the combination to be very rare, but when it does happen it gives rise to a series of most significant phenomena. One well-marked instance has occurred in my practice.

A middle-aged lady was the subject of this form of the malady. She had from her early life, she said, been subject to hæmorrhage from slight wounds, and to frequent epistaxis. At the time of her visit to me she exhibited a few purpuric spots of that diffuse and simple bruise-like character which I have mentioned as belonging to aqueous purpura. She had venous murmur, and the specific gravity of the urine was low—1006. These symptoms were all very characteristic, but there was added to them another—viz., that of exudation of thin blood, at different periods, from some part of the skin without any visible wound or cause. Thus, she would wake in the morning to find spots of blood on her pillow, or on the sheet; and one day, just before she visited me, she had found her dinner napkin spotted with blood. The phenomenon, for which she could not herself account, produced a serious and painful impression on her mind—an impression of alarm and intense fear. I was able to assure her that there was nothing mysterious or inexplainable in her case; and, from the description she gave me of the last escape of blood, I was certain that the fluid had exuded from one of her fingers. I examined carefully the tips of the fingers without discovering the point; then, with success, I placed her hand before an opening in a screen upon which was directed the light focussed from a magnesium lantern. The light passed readily through the structure of the fingers and hand, the parts being thin and delicate, and on the inner side of the fourth finger of the right hand I detected, near to the palm, a round and exceedingly dark spot, the size of a hemp-seed, and looking dark, like an enlarged vein. When this spot was examined with a glass by ordinary light a minute opening was detected, from which, under pressure, fluid blood exuded; but the pressure produced tingling along the limb up to the elbow, in the course of the ulnar nerve. I covered the point with styptic colloid, and put over it a compress of cotton-wool and a tape bandage. On the following visit the patient told me, with infinite satisfaction, that she had noticed no more blood-stains, but that the tingling from the pressure was acute. I thereupon removed the compress, and found the cotton-wool stained with dry blood. To effect a radical cure I froze the part with ether spray, made a lancet puncture through the small subcutaneous tumour, and plugged with cotton-wool saturated with iodised colloid, reapplying the compress. The result was all I could desire. The wound, from which a little cheesy-like matter escaped, healed well; and under the return of composure of mind and the influence of general treatment (of which more shortly) a good recovery took place. The last I heard of this lady was that the symptoms had not returned and that she was in good health.

Throughout the history of medicine details of cases such as this are scattered, often with wonder attached to them. The illustrations that have been left us of bleeding from stigmata, and of one form of bloody sweat, are of this nature. The patient is suffering from an unnatural fluidity of blood, and thereupon is set up a local disease of bloodvessel at some small point in the peripheral surface. What may be called a capillary or arteriole aneurism is thus induced, which after a time opens by a minute aperture through the skin. Then follows, under a little extra pressure of blood, the sanguineous exudation. In patients of this class—persons usually of excitable and nervous character,—the mere excitation of the heart under a mental impulse is sufficient to produce the transudation of blood. Thus, in certain cases, the bleeding can be brought under the influence of the will, and even by trained mental action may be rendered automatic and regular in respect to time. In the very patient whose history I have given these events were to a large extent realised. The hæmorrhage would sometimes be induced after a meal, but it was regular during sleep, at which time it was expected to come on with regularity; and evidently it occurred almost immediately after the sleep befel.

## DIAGNOSIS, GENERAL AND DIFFERENTIAL.

The diagnosis of these varying types of purpuric disease may be put forward in a few sentences. In *aqueous* purpura there is a history of hæmorrhage of fluid blood, restrained with difficulty and caused by very slight wounds. There is a history either of hereditary disposition to the disease or of its induction by some nervous shock or injury. The blood is very fluid when taken from the body, and does not coagulate. The corpuscles of the blood are large and deficient in central depression. The specific gravity of the blood is low, and the specific gravity of the urine is low. The eruption on the skin is not a persistent symptom, and when it appears it consists of a diffused blotch resembling a bruise, with neither swelling nor hardness. The eruption is brought out by any cause that for a moment paralyses the vascular tension. It is brought out readily by extreme cold. The patients themselves are not, as a result of the disease, in an emaciated or enfeebled condition, and they do not bleed from open surfaces except when the vessels are divided. In other words, their blood does not exude through closed vessels, but it easily flows from a wounded point, as from a prick or the suction of a leech.

In *saline* purpura there is no necessary history of hæmorrhage of fluid blood, nor yet of hereditary disposition to such hæmorrhage; but there is always a history of an induced morbid condition from error in diet, exposure to some noxious agent, or disintegration of blood from disease. The blood is fluid when taken from the body, but from it fibrine separates, and the corpuscles are shrunken and crenated at their edge. The specific gravity of the blood is high, and the specific gravity of the urine follows the same rule. The tendency of the blood in these cases is to exude from the soft spongy surfaces, as from the gums; and if an eruption present itself, it is in the form of maculæ or petechiæ. Transudation of blood by the secretions is not an uncommon diagnostic fact of this type of purpura.

In *vascular* purpura there is no necessary history of hæmorrhage, no necessary history of hereditary disposition. The subjects of it are usually young and are well nourished, with a tendency to grow fat, and with some one or other marked sign of imperfect development of the skeleton. The blood is natural, but, owing to some inherent structural weakness of its containing vessels at their peripheral extremities, it is let escape by rupture of vessel on slight cause. The blood is healthy: it coagulates naturally, and its corpuscles are of correct size and form. The eruption is like a bruise, but it is prominent—I mean, attended with swelling; and it becomes hard as the serum of the blood is absorbed from the pectous fibrine. Extreme cold does not bring out the eruption, nor indeed anything save a mechanical injury. An open wound, though it may bleed longer than is natural, ceases to bleed from the coagulation of the blood that flows from it.

## TREATMENT.

I pass now to the consideration of a subject which, of all others, is most important to us who are actively engaged in the practice of healing—I mean the treatment of the different types of purpura to which our minds have been drawn. What I have gradually learned as to the distinctive types of the disease has influenced me in the most marked degree, and has, I believe, led me to successful results of treatment which I did not realise when I was less clear as to the precise nature of the phenomena that in different groups came before me.

The treatment of aqueous purpura is definitive. It consists in supplying the patients with an abundant amount of fresh animal food, in reducing to the smallest degree the amount of water and watery fluids, and in keeping all the fluid secretions in active operation. A rather frequent purgation is of undoubted service, and with this a ferruginous mixture may be happily combined if the symptoms of excess of water are extreme. I believe the best general medicine is a combination of superphosphate of iron with peroxide of hydrogen, in the proportion of five to ten grains of the iron salt with two fluid drachms of the peroxide solution of ten volumes strength.

When in this class of case hæmorrhage occurs from a wound, it is of first importance, while using local means to arrest the flow of blood, to be sure and remember the general condition and to connect general with local measures. In the course of the past ten years I have been called in six of these cases to arrest what it was feared would prove fatal hæmorrhage coming on after the extraction of a tooth; and the uniform result of success which has been obtained in these examples has been largely due, I am conscious, to the circumstance that I have kept the patients, even while the bleeding was imperfectly staunched, well supplied with food, and have administered dilute sulphuric acid freely, as if, indeed, I were treating hæmoptysis.

In the way of local treatment, my experience is not in favour of the continually repeated application of caustic stypties, neither is it strongly in favour of the actual cautery. The most troublesome and anxious case I have had, in fact, was one in which the perchloride of iron had been used, and had produced, not a styptic, but a destructive action, with intense soreness and unsoundness of tissue. It is to be remembered that in these cases the blood is not coagulable, and that to attempt to cure by securing coagulation is all but hopeless. It is best, therefore, to trust to systematic pressure with a plastic styptic, and I have found styptic colloid, on the whole, the best application.

The treatment of saline purpura includes a careful *régime*. The administration of water in free quantities is advisable; an excess of animal food is inadvisable, and all saline and sweetened foods are specially objectionable: alcohol is most objectionable. Medicinally, the vegetable acids are the best remedies, and I have certainly seen good results from the use of dilute hydrochloric acid. When it can be obtained, I recommend that distilled water should be drunk by patients of this class.

To the spongy and bleeding surfaces of these patients, caustic styptics, though they are so often used, are, according to my experience, injurious. They destroy structure, create irritation, and do not, except for the briefest possible time, arrest the exudation of blood. A plastic styptic, with some deodorising substance added to it—and nothing beats iodine—forms the surest and safest local remedy.

The treatment of the last or vascular type of purpura, in which the diseased condition is in the vessels, and not in the blood, introduces another and different series of remedial measures. In these cases the idea of styptic applications of any kind is unnecessary, and attention has mainly to be paid to such conditions as shall promise either to give better tone to the nervous vascular supply, or to be curative, if that be possible, of organic lesion of vessels.

The patient in these cases must be well sustained with mixed food, without special reference to restrictions of particular foods; he must have fresh air, and must be subjected as little as possible to undue fatigue.

It is in these cases that the administration of turpentine, medicinally, is often of such signal service. In what manner turpentine acts, physiologically, I have no knowledge; for though an inquiry into the action of this remedy has been for a long time on my list of laboratory researches, I have never yet found time to carry out the work. As a remedy, however, I know it to be all but specific for the particular type of purpura which is now under consideration. With a little care in prescribing, using glycerine or common alcohol as a vehicle, it may be combined with iron: or it may be given in capsule. On the whole, I think that for children glycerine carries it best, and it is far better to administer it in small and frequently repeated doses, such as three to five drops three or four times a day, than in larger and more nauseous doses at longer intervals.

In a few cases where there has been considerable feebleness of body, and where the turpentine has interfered with digestion, I have administered with advantage the syrup of the superphosphate of quinine and iron, and I have a case at the present time under my care in which this remedy has rendered undoubted service. But I incline most to the terebinthinate remedy, and I should specially welcome any pharmaceutical improvement that would make so excellent a remedy more acceptable to those who are benefited by it.

Once or twice in the course of my observations I have seen the vascular type of purpuric disease coupled with an eruption of psoriasis. Such a case came before me last week. In these examples we have probably some diseased condition of the minute vessels that is nearly allied; and when the two eruptions occur together the administration of arsenic is resorted to with advantage. I have, however, not found arsenic in the simpler—I mean in the uncomplicated—purpuric disease of any specific value.

I have sketched out incidentally the local treatment which I should follow in those cases where two of the distinctive types of the purpuric conditions are combined. In the case that came under my care, where there was external bleeding from the stigmata, I treated generally by the administration of

the superphosphate of quinine, iron, and strychnia, adding to that for a few nights an opiate, the sleep having been much disturbed. This treatment, with a frequent alterative, acted well, and I should see no reason, in another and similar example, for instituting any modification of it.

In the study thus presented it would have been easy to have introduced many other facts and observations bearing on the subject of purpura as a symptom of other diseases. In such cases it assumes, probably, the same varieties of types as have been described above, and is indicative always of one or other of the morbid states of blood that have been under our consideration. But I have preferred, on the present occasion, to take up the disease as it appears before us in the form of a distinct malady uncomplicated with any other disease, and called simply purpura or purpura hæmorrhagica up to the present era of medical nomenclature.

## ORIGINAL COMMUNICATIONS.

NOTES ON THE

# PATHOLOGY OF PULMONARY PHTHISIS.

By T. HENRY GREEN, M.D., F.R.C.P.,
Physician to Charing-cross Hospital, and Lecturer on Pathological Anatomy in the Medical School.

### III.—Histology of Phthisis.

*Recapitulation—Definition of Phthisis—Changes met with in Lungs in Phthisis are similar to those occurring in Acute Tuberculosis—The Changes are principally of Four Kinds—The Several Kinds of Change usually Associated, although in very Different Degrees—The Accumulation of Large Epithelial Cells within the Alveoli—Giant Cells—The Presence within the Alveoli of Fibrinous Exudation and Leucocytes—Macroscopical Characters of Lung.*

The publication of these "Notes" was commenced two years ago, but I was unexpectedly at that time prevented from continuing them. Their object was to describe the structural alterations met with in the lungs in the several varieties of pulmonary phthisis, to examine into the nature of the morbid processes upon which these changes depend, and to consider the etiology of the disease. Two introductory papers were published on Tubercle and Miliary Tuberculosis,(a) and it is proposed now to resume the consideration of the subject by describing, in the first place, the several histological changes met with in the lungs in phthisis. Before doing so, however, I will briefly enumerate the more important points in the pathology of miliary tuberculosis so far as regards the lungs, inasmuch as these have a direct bearing upon the question of phthisis.

The more important conclusions derived from the study of miliary tuberculosis are as follows:—

1. The lesions in miliary tuberculosis are inflammatory growths resulting from the dissemination of infective substances from some primary inflammatory product.

2. Inasmuch as these lesions are the result of infection, they usually occur as disseminated miliary nodules, although they occasionally consist of more diffused tracts of consolidation.

3. Histologically, the pulmonary lesions present certain differences. In some cases they consist almost exclusively of alveoli stuffed with epithelial elements and a small amount of fibrinous exudation; in others, this intra-alveolar accumulation is associated with the development of a small-celled adenoid tissue in the alveolar walls; whilst in a third class of cases the nodule is constituted of a tissue consisting of the adenoid structure and branched "giant" cells, which tissue is often seen to be undergoing fibroid changes in its more external portions, and retrograde metamorphosis in its centre.

4. These differences in the constitution of the lesions are mainly owing to differences in their age and in the intensity of the tuberculous process.

5. Provided the intensity of the tuberculous process be not sufficient to cause the rapid disintegration of the nodules, the amount of fibroid change in them is greater in proportion to their age.

6. The greater the intensity of the tuberculous process, the more prominent is the part which epithelial proliferation and exudation play in the production of the nodules, and the more rapidly do they undergo disintegration; the less its intensity, the more abundant is the development of the small-celled adenoid tissue in the alveolar cells, and the greater is the tendency of the nodule to undergo a fibroid change.

7. The retrograde metamorphosis of the nodules is mainly due to the obstruction to the circulation caused by the pressure exercised upon the pulmonary capillaries by the intra-alveolar accumulations, and also by the small-celled growth in the alveolar walls.

(a) *Medical Times and Gazette*, Oct. 12 and 26, 1872.

#### *Histology of Phthisis.*

Having considered the disseminated lesions which occur in the lungs in miliary tuberculosis, and attempted to explain the differences which they present in their histological characters, we are in a position to study pulmonary phthisis. Before doing so, however, it is important to understand clearly what morbid conditions are to be included under this term. By "pulmonary phthisis," then, I think may be understood all those alterations in the lung which are characterised by progressive consolidation and by the subsequent softening and disintegration of the consolidated tissue. The progressive character of the consolidation and the subsequent disintegration which it undergoes must, I think, be regarded as the most distinguishing features of the disease. These peculiarities are in themselves sufficient to separate phthisical from certain somewhat allied forms of consolidation—as, for example, from some chronic basic pneumonias and from the disease known as Corrigan's cirrhosis.

In studying pulmonary phthisis it must be borne in mind that in a large number of cases this disease is accompanied by a local tuberculosis, which gives rise to lesions in all respects precisely similar to those which have been already described as resulting from the more general disease. That a certain relation subsists between phthisis and tuberculosis has already been stated, but this relation will be seen to consist in a histological rather than in a pathological similarity.

It may be stated generally that the changes met with in the lungs in pulmonary phthisis are similar histologically to those which occur in pulmonary tuberculosis. They differ, however, especially in two particulars. In the first place, whereas the lesions in pulmonary tuberculosis, owing to the infective character of the disease, tend to be limited to small circumscribed areas, those of phthisis more commonly involve wider and more diffused tracts of tissue. Secondly, the element of time impresses certain peculiarities upon the lesions in a large proportion of the cases of phthisis. Inasmuch as this disease usually runs a much more protracted course than tuberculosis, the lesions not only become more densely fibroid, but they are also frequently the seats of secondary changes.

If the lungs in the various forms of pulmonary phthisis be examined microscopically, it will be found that the morbid changes which have taken place in them are mainly of four kinds:—1st. An accumulation of large epithelial cells within the pulmonary alveoli. 2nd. The presence within the alveoli of a fibrinous exudation and leucocytes. 3rd. A thickening of the alveolar walls by a small-celled lymphoid tissue, together with, in most cases, the growth of a similar tissue around the minute bronchioles. 4th. An increase in the interlobular connective tissue. These four kinds of morbid change are very constantly associated, although in very different degrees. Upon the preponderance of one or other of them mainly depend those variations in the physical characters of the lungs which are met with in the different stages and in the different varieties of the disease. In the present place I propose merely to describe somewhat minutely these various kinds of morbid lesion, and to point out the more important alterations which they respectively produce in the physical characters of the lungs. Their pathological significance, together with the relation in which they stand to one another and to other pulmonary lesions, will be considered in a subsequent paper.

1. *An Accumulation of Large Epithelial Cells within the Pulmonary Alveoli.*

This is one of the most frequent changes met with in phthisis. Large nucleated elements are seen filling the alveolar cavities, and, in successful sections, extending also into the terminal bronchioles. These elements resemble epithelium, and are evidently the offspring of the epithelial cells which line the alveolar cavities. The newly formed elements are plump and spheroidal in shape; they vary somewhat in size, but are for the most part about four or five times as large as a white blood-cell. Some of them are much smaller, and appear to be less fully developed. They contain a distinct round or oval nucleus with nucleolus, and in some of the larger ones as many as two or even three nuclei are visible. They

are usually markedly granular, and they often contain dark pigment. Associated with these large cells there are sometimes seen a few much smaller elements, many of which are indistinguishable from leucocytes. Although some of these may be the offspring of the germinating epithelium, I think they are probably, in part, emigrants from the bloodvessels; and this opinion is based on the fact that exudation and emigration so frequently play a part in the production of phthisical consolidation.

In describing these changes within the alveoli, allusion must be made to those large multinucleated masses of protoplasm—the "giant cells"—which are so commonly met with in phthisical lungs, inasmuch as these cells are often seen to be occupying situations which are distinctly intra-alveolar. These cells are precisely similar to those which have been already described as occurring in pulmonary tuberculosis. Respecting their origin, Dr. Klein states, in a recent publication,(b) that they are produced by the fusion together of the alveolar epithelium. I have not succeeded at present in tracing clearly this mode of development. From my own observation I am merely able to state that the epithelial elements are often to be seen so crowded together that their individual outlines are no longer distinguishable—the alveolar cavity being filled with an ill-defined looking mass,—and that the situation of the typical giant cell can often be demonstrated to be an intra-alveolar one. Giant cells are only found in the more chronic forms of the disease.

In some cases of phthisis—those which are the most acute—this accumulation of cells within the pulmonary alveoli may constitute almost the only structural change, although it is usually associated with the development of a small-celled adenoid growth in the alveolar walls. At the same time this small-celled growth may be in most portions of the lung entirely wanting; and in some of the most rapid cases of non-infective phthisis I have found the alveolar walls presenting almost universally a perfectly normal appearance. Their condition is the more easily determined, inasmuch as the process of hardening the specimen tends to cause a shrinking of the products which are accumulated within the alveoli, so that, in some portions of the section, an interval often exists between these and the wall of the alveolus. In all cases when the alveoli contain confluent epithelial elements, or giant cells, their walls are markedly thickened by the small-celled growth.

*2. The Presence of a Fibrinous Exudation and Leucocytes within the Pulmonary Alveoli.*

This, although perhaps less frequently met with than the other forms of lesion, often contributes largely to the production of phthisical consolidation of the lung. In making this statement I am aware that I differ somewhat from some other pathologists; but I have observed the change so frequently that I must venture to express the opinion that it by no means infrequently constitutes an important element in the disease. The exudation material presents a perfectly characteristic appearance, and cannot be confounded with the mucoid substance which is so frequently seen in the air-vesicles in cases of so-called broncho-pneumonia. It is precisely similar to that which fills the alveoli in acute croupous pneumonia, consisting of an obscurely fibrillated fibrinous coagulum, enclosing leucocytes in its meshes. This coagulum, however, is not usually so abundant as it is in the ordinary pneumonic process, neither is the fibrillation quite so distinct. As to how far all the small cells enclosed within it are emigrants, it is difficult to speak with absolute certainty. Small cells indistinguishable from leucocytes are frequently seen in varying numbers associated with the larger epithelial elements; and, as has already been stated, many of these are in all probability the products of epithelial proliferation; but in some cases they are so numerous that, I think, they must, for the most part, have escaped from the vessels. These small cells are usually slightly granular, owing to the presence of molecular fat. Occasionally, however, they may be seen to be becoming elongated and spindle-shaped, the exudation products evidently undergoing a process of organisation.

In some of the most acute cases of phthisis, where both lungs are rapidly involved and rapidly become disintegrated, this filling of the air-vessels with the products of exudation may constitute the sole cause of the consolidation, the alveolar walls being almost perfectly normal. More commonly, however, this change is associated with epithelial proliferation, the two conditions occurring together, just as they have been seen to do in pulmonary tuberculosis. Pulmonary consolidation from exudation is also very commonly met with at the bases of lungs, the upper portions of which are the seats of more chronic phthisical disease. Here an acute process would seem to have supervened upon a more chronic one, and so to have determined the fatal termination. The bases of such lungs often appear to be the seat of an ordinary pneumonia of slight intensity. They are somewhat œdematous, but denser than natural, and exceedingly soft and friable—resembling, in short, the milder forms of pneumonia which so commonly determine dissolution in cases of chronic disease (secondary pneumonias). I must, however, state that this acute change in the bases of the lungs can in no way be separated by any marked line of demarcation from less acute processes which may be taking place in the upper portions of the organ. It would appear that the element of time constitutes the principal cause of the differences between the two. To this I shall allude again hereafter.

The macroscopical appearances of the lungs in those cases of phthisis in which the pulmonary consolidation is due to these *intra*-alveolar changes, and in which there is but little alteration of the alveolar walls, are very characteristic. The consolidated tissue is quite soft and friable, breaking down very readily under the finger, and there is a complete absence of any induration. The consolidation, although frequently almost uniform, sometimes presents a somewhat lobulated outline, indicating the implication of different groups of lobules. The colour varies from a reddish- to a yellowish-grey, and scattered through the consolidated mass are small portions of a more decidedly yellow tint. These latter correspond with those parts in which the retrogressive changes are the most advanced, and they are even softer in consistence than the surrounding tissue. In many parts the consolidated tissue will be found broken down, so as to form cavities of various sizes. These usually possess irregular walls, which are quite soft and friable, like the solid tissue which surrounds them. Sometimes a cavity is found lined with a soft, delicate membrane.

(*To be continued.*)

(b) "Anatomy of the Lymphatic System of the Lungs" (*Proceedings of the Royal Society*, No. 149, 1874).

REMARKS ON

# ALOPECIA AREATA AND TINEA TONSURANS.

By ROBERT LIVEING, M.D., F.R.C.P.,
Physician in charge of the Skin Department of Middlesex Hospital.

At a recent meeting of the Pathological Society an interesting discussion appears to have arisen on the parasitic nature of alopecia areata. Mr. Waren Tay brought forward two cases of this disease supposed to be communicated from tinea tonsurans. I have met with several similar instances, in which well-marked alopecia areata has followed ordinary tinea tonsurans. Both diseases are common, and that we should occasionally meet with their coincident occurrence is not improbable. It is just possible, however, that tinea tonsurans may in some cases so interfere with the nutrition of the hair as to favour the subsequent development of alopecia areata. That this latter disease is not directly produced by any form of parasite I take to be as nearly as possible proved.

The history of many cases, in which the whole of the hair of the scalp and the eyebrows falls off almost suddenly, cannot be satisfactorily explained on the supposition that it is due to a parasite spreading gradually from a centre. The atrophy of the hair-bulb, the defective state of pigmentation in the skin as well as the hair, point to a disease of perverted nutrition, but are not evidence of a parasitic origin; and this view is rendered still more probable by a fact pointed out by Dr. Fagge, and which I can confirm, that there is sometimes a distinct family tendency to the disease. Further, we find some advocates of the parasitic theory admitting that "in ninety-nine cases out of a hundred of circumscribed baldness, no fungus can be found." Are we to believe that out of a hundred cases of area ninety-nine are non-parasitic, and the hundredth case, though to the naked eye indistinguishable from the other ninety-nine, yet depends for its existence on a totally different cause? Or must we suppose that the ninety-nine cases really depend on a parasite that we cannot demonstrate? Either hypothesis is very improbable.

With regard to tinea tonsurans, it is more difficult to determine the part played by the parasite. The President of the

Pathological Society is reported to have said that "in tinea tonsurans the fungus is probably not the essence of the disease, even though it may be always present." To this view I entirely assent, and chiefly for the following reasons:—1. What we know generally of the growth of these kinds of vegetable parasites is not in accordance with the assumption that they attack and feed upon perfectly healthy growing structures; their food is generally dead or dying tissue. 2. From an examination of a large number of cases, I have been led to the conclusion that the development of the fungus is not always in proportion to changes present in the skin and hair, showing that other causes are at work. 3. That in many cases of tinea tonsurans the comparatively healthy hair of the whole scalp loses its lustre, becomes harsh, dry, and brittle, and more opaque than in health, without the growth of fungi beyond the ringworm patches; and the same condition of hair sometimes remains for months after all parasitic growths have disappeared. 4. If the fungus were the essence of the disease we should expect the malady to be less capricious in its nature. Two children in whom ringworm has appeared at the same time may be treated in exactly the same way, but in the one it will disappear quickly, while in the other it may last for months, or even years. On the whole the balance of probabilities seems to me in favour of the view that the fungus plays a secondary though important part in the development of the ordinary patch of tinea tonsurans.

## INDUCTION OF PREMATURE LABOUR.

By JOHN C. LUCAS, L.R.C.S.E.

The various means which have been proposed from time to time for the purpose of effecting expulsion of the contents of the gravid uterus have each their advantages and drawbacks—some are more effective, more rapid and certain in their action; while others are not only slow and uncertain, but likewise affect the child-bearing function of the woman, if she happen to escape with life; so that the choice of one or other mode of procedure becomes of very great practical importance, especially in cases advanced in utero-gestation, where, in addition to the viability, we obtain evidence of the vitality of the child, and our aim is consequently directed to save it if possible. The *modus operandi* of all, of course, is based, as we know, upon the contractility possessed by the uterine muscular fibres, by the aid of which, on the application of stimulus or the introduction of a foreign body in utero, the ovum or fœtus finds its exit as in labour at full term. The operation, therefore, for inducing premature delivery or abortion in the earlier months is effected either by directly acting upon the womb and its contents, or indirectly by secondary reflex irritation through the medium of the breast, larger bowel, etc. The measure most frequently had recourse to in the present day is that originally taught and practised by Hamilton in the beginning of this century. This operation—namely, of detaching the membranes—used to be performed rather roughly in those days by the forcible introduction of the digit through the cervix uteri, but modern obstetricians have improved upon Hamilton's method by taking care to avoid puncturing the bag of membranes by the careful introduction of a flexible instrument between the uterine wall and the membranes, without tearing through the latter.

In a case which not long ago came under my observation—that of an out-patient of the West London Hospital, who was a little less than eight months advanced in the gravid condition, in which case premature delivery was urgently demanded,—after getting the consent and preparing my patient, and placing her in the usual obstetric position, I employed a long flexible gum-elastic bougie, passing it in a spiral manner across the fundus, without puncturing the bag of waters. I left it *in situ*, and labour, as desired, was brought on within nine hours; both mother and infant did remarkably well, without any evil consequences to either. The operation is by no means a difficult one, is perfectly free from danger to maternal structures, and not unfrequently saves many a patient from the perils of forceps, version, etc., and many more infants from death in utero or by the painful resort to embryotomy, by which the mother has to run the risks of post-partum hæmorrhage, metritis, peritonitis, etc. Therefore the timely induction of labour before the full term, in properly selected cases, would tell materially upon the statistics of parturient mortality.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## LONDON HOSPITAL.

[For notes of the following cases we are indebted to Mr. R. Kershaw.]

### CANCER OF PELVIS, OMENTUM, ETC.—THROMBOSES OF LEFT JUGULARS, OF SUBCLAVIAN, OF THE SUPERFICIAL VEINS OF THE FRONT OF CHEST, OF THE INNOMINATE AND SUPERIOR VENA CAVA, AND ALSO OF THE BRANCHES OF RIGHT PULMONARY ARTERY.

(Under the care of Dr. RAMSKILL.)

This patient (E. D., aged fifty-three), when admitted, gave the following history, for which we are indebted to Mr. Walker. She said that she had suffered a good deal from so-called bilious headaches, that she had had a hard life, having usually worked from eight in the morning until eight at night as a sewer in the book trade, and often did not leave the house for days together. She had been subject to constipation for years. During the last year she had had "great agitation and bother," having lost several relations during that period. Six months ago she began to experience an aching pain in her loins; she said it was at the commencement of her illness, and that it began in the right side of her abdomen after a hard day's work at washing. When admitted into the hospital she was not wasted, but was very anæmic-looking, and her hair was grey (this having changed colour, she said, when she was twenty-six years of age). Her tongue was pale and flabby, her urine had a specific gravity of 1020 and contained lithates, but no casts nor crystals. On examining the chest, it was found that expiration was prolonged everywhere, and the percussion-note flat at the posterior apices. There was no indication of the heart being diseased, but the first sound was feeble. The dulness of the liver and spleen was normal; there was no ascites, no œdema. There could be distinctly felt a hard cord-like substance along the course of the left external jugular, and thrombosis of this vein was diagnosed. Six weeks after admission there was œdema of the left arm. The thrombosis did not cause pain, nor had it been preceded by pain. She said her legs swelled once, but they were not swollen when she was admitted into the hospital. On the following day the superficial veins over the left pectoral muscle were very distinct and distended, and minute ones were seen ramifying in all directions over the upper part of left chest. The left arm remained œdematous, and the external jugular hard and swollen. After a few days she said she felt better, but that the pain continued in her loins and both sides of her abdomen, being reproduced each time she ate or drank. Her tongue was clean at the edges and red; in the mornings it was very dry, and she complained of having a nasty taste in her mouth. The left arm began to feel more tense, and pitted on pressure. It was further observed that she had a tumour in the lower part of the abdomen on the right side, the seat of pain; this, in the course of a few weeks, seemed to enlarge greatly, and was thought to be cancer. About a week before she died her eyelids became very œdematous—so much so, that she could with difficulty open them; her chest-wall was also œdematous, and everywhere over it the small veins seemed unusually distinct and distended. Her lips were blue, and her right arm seemed somewhat swollen, but not appreciably œdematous. It was particularly noticed that her pulse at the wrist was at this time very small and feeble; her breathing was laboured, it seemed as if she was at each inspiration endeavouring to take a deep breath. On listening to the chest, a loud, harsh inspiratory note was heard everywhere, there were no moist sounds, and the resonance was clear; there was nothing to show that there was any obstruction to air entering the lungs. She did not complain of headache. The optic discs were examined, and the veins were found to be somewhat distended and the arteries small, but these changes were not very greatly marked. There was no œdema in the lower part of the body. She complained that her breath was "so short," and it was at this time thought that there was thrombosis of the superior vena cava, and that the clot had extended continuously from the left side of the neck. Owing to this condition of the cava, the venous circulation in the upper part of the

body was obstructed; hence the œdema of the chest, face, and arms. And owing to this venous obstruction, there was a lessened quantity of blood entering the arterial system; therefore the small, feeble pulse, and the blood being largely cut off from the lung, the air entering the pulmonary cells could not obtain access to it, and hence the increased *besoin de respirer*. Her circulation became gradually more and more arrested and her breathing more laboured until she died.

At the autopsy, which was conducted by Dr. Sutton, the body was found to be much wasted. There was œdema of the chest and arms, but not of the legs. In the chest-wall the veins ramifying through the pectorals were found to be completely plugged with a blackish clot. The left external jugular contained a quantity of serous-looking fluid and completely decolorised softened clot. The left internal jugular was filled with partly decolorised clot, which was firmly adherent to its lining membrane. The left subclavian vein, and the branches extending over the front of the chest-wall, were similarly plugged. The left innominate vein contained a large, dirty grey, moderately firm clot, which completely filled it, but was not adherent to its surface. This extended down to the superior vena cava, which was also filled with a similar substance, and to the right auricle, where the clot became black, the portion nearest the cava being partly decolorised. The right ventricle was also filled with a black but less firm clot. The inferior vena cava was not plugged; but the right subclavian and right jugular were completely full of black clot. The left ventricle was contracted and almost empty; the valves and orifices were normal; but the heart was smaller than natural. The brain was healthy, except that the convolutions of the anterior two-thirds were wasted; the sinuses did not contain clots. In the right pleural cavity there was found a considerable quantity of opaque serous fluid, which by its pressure had caused collapse of the lower lobe of the right lung. There were no indications of pleurisy. On section, the right lung was seen to be paler than natural, and injected posteriorly, and some old pigmented calcareous matter, in the form of small masses, was found in the lower lobe. The trunk of the pulmonary artery was free from clot; but in one of its large branches in the lower half of this lung there was a decolorised clot adherent to the endothelium, and a branch in the upper lobe also contained a small clot. On the left side the pleura was normal. The lung on section was pale, and at the apex there was some thready fibroid thickening, which did not completely consolidate the part. The abdomen was not much distended; there was no ascites. The liver was much enlarged, pale, soft, and fatty, and it reached some inches below the ribs. The peritoneum was venously congested, but otherwise healthy. The right half of the omentum was invaded by cancerous matter, and there was a large cancerous mass rising up from the right side of the pelvis, surrounding the upper part of the uterus, and invading one of the Fallopian tubes, which was much dilated, the cancerous growth having extended along its inner surface. The bladder and rectum had escaped; but the left ovary was apparently destroyed, being converted into a cyst filled with a yellowish-looking lymph and opaque serum, and just outside of it there was a large nodular mass of cancer. The spleen was dark in colour as in heart disease, and the kidneys were somewhat venously congested. The mesentery was much invaded by the cancerous growth, also the lumbar glands, forming masses along the course of the aorta; these masses, however, did not much compress the aorta nor the vena cava.

## HEART DISEASE—PLUGGING OF THE AXILLARY ARTERY—GANGRENE OF FOREARM—RECOVERY AFTER AMPUTATION.

(Under the care of Dr. RAMSKILL and Mr. COUPER.)

This patient, a man (J. H. W.) aged fifty-two, was admitted into the London Hospital in February, 1873, under the care of Dr. Davies. He then said he had not had good health since he was seventeen years of age, and at that time was laid up with rheumatic fever in St. Thomas's Hospital several months. He further said that his heart had been affected ever since, and he had had a cough for years. Whilst in the London Hospital there were physical signs of bronchitis and of mitral regurgitation, and the second sound of the heart was markedly doubled. After being in the hospital several weeks the chest symptoms diminished considerably, but the abnormality of the heart-sounds remained. He seemed much better, and was therefore sent into the country; but his breath was nevertheless very short on exertion, especially on going upstairs, and he had a sense of numbness in his feet and legs. Whilst in the country he seemed to improve, but felt depressed and miserable, having an impression that he had "done something very wrong, and could not shake it off." This feeling "used to make him cry." He lost all power of enjoyment, and for some time was very wakeful at nights, though quite free from pain. He returned to London on September 1, feeling quite as well as usual; said he was "laughing heartily" on the evening of that day, and at night slept for several hours—in fact, had a better night than he had had for many weeks. At about eight o'clock next morning, whilst sitting upon the edge of his bed, he was suddenly seized with severe pain in his left arm, which caused him to feel faint, and he had to lie down again. He vomited two hours later, and several times during the day; the pain also persisted with great severity. During the afternoon of the same day he first noticed a slight discoloration on the back of his left hand; he said "it looked as if bitten by frost." This change extended, and the pain continued so as to prevent sleep, and after two days he was again admitted into the hospital. On admission, his hand was cold and the skin shrivelled and bluish; from the wrist to the elbow it was swollen and tense, but pitted slightly and doubtfully on pressure. There were a number of hæmorrhagic spots on the skin of the forearm, and a dark red patch on the back of the forearm which extended to the front of the radius. The colour did not fade on pressure, and was to be seen more or less throughout the entire forearm, its tint being that of dark-red rust. The sensation of touch was lost in this part, but just above the dark-red portion the arm was very tender on pressure—in fact, hyperæsthetic,—and the skin warmer and of a pink appearance. He was unable to move the left arm, and said he lost all power in it at the moment when he was first seized with pain. No pulsation could be felt in the axillary artery, whereas it was distinct, though feeble, in the right radial. On the following day the condition of his arm was much the same. His cheeks were slightly flushed, and he appeared somewhat depressed, being disposed to groan and cry. He had no facial or ocular paralysis; the pupils were rather contracted; there was no loss of power in his legs and right arm. His tongue was moist, but thickly coated with fur; bowels regular; no tenderness on pressure, except over the epigastrium, where moderate pressure caused him to shrink; there was no œdema of the lower extremities; no ascites. His respiration was diaphragmatic and laboured, 20 per minute; though when asked to take a deep breath his chest expanded, but not well. The heart's dulness extended half an inch outside the left nipple, and half an inch to right of sternum, and upwards to the margin of the third rib; its apex-beat was very irregular. On listening, a forcible beat was heard, accompanied by a well-marked murmur, followed by two or three feeble ones during which the murmur was very faintly heard. This murmur was soft and blowing, and slightly preceded and accompanied the sharp knock of the apex-beat; it was heard loudest over the region of the apex-beat. The second sound was much intensified over the second left costal cartilage. The physical signs showed that the lungs were emphysematous. The liver dulness reached the sixth intercostal space, evidently diminished by the emphysematous lungs. After a few days, loss of sensation was found in that part of the forearm where hyperæsthesia had previously been very marked. The dark-red colour had extended almost to the elbow; the skin was cold, and the hand entirely devoid of sensation. The pulse in the right wrist was very small and feeble. He slept badly, waking up frequently, but he complained only of pain in his arm. The limb was enveloped as high as the shoulder in thick folds of cotton wadding, and the pain began to abate at the same time that a distinct line of demarcation formed two inches below the elbow. The dead, mummified skin partly detached itself from the living; and a thin, offensive discharge came from the line of separation.

Mr. Couper was now consulted as to amputation. He declared a regular amputation inadmissible on account of the patient's extreme exhaustion, and advised removal of the gangrened limb immediately below the line of demarcation, and the subsequent removal, bit by bit, of the fragments of slough left attached to the living parts. This measure was adopted forthwith. The patient was not removed from bed, nor was he informed that an operation was contemplated. All the dead parts, excepting two inches of radius and ulna, were speedily removed without shock, without pain, and without bleeding. No anæsthetic was needed. In a few days a clean truncated surface was obtained, covered with granulations,

from the centre of which projected the necrosed stumps of the radius and ulna. No attempt was made to obtain flaps. The wound slowly contracted and healed around the bones. The sequestra were gently detached at the end of two months, and a few weeks later the wound had closed. Although little more than an inch of the shafts of the radius and ulna remained, perfect voluntary movement of the elbow was preserved. The articulation itself was not implicated at any period of the attack. A longer and more useful limb was thus retained than if the alternative of amputation three inches above the elbow had been successfully adopted. No doubt a very unshapely stump has resulted. There is a puckered scar glued to the ends of the bones, but there is no lack of covering, and no retraction of soft parts. The stump, though tender for a long time, is now painless.

Most probably the gangrene arose from embolic plugging of the axillary artery, or of the brachial at or near its bifurcation, the plug being probably due to detachment of a vegetation or clot from a diseased cardiac valve. The history of the attack accords with this hypothesis, while, on the other hand, in its suddenness, as well as in the extent of limb affected, the gangrene differs completely from the ordinary senile variety arising from degeneration of small vessels. The lower limb is the favourite seat of this latter affection. The most outlying part—the terminal phalanx of a toe, for instance—is generally the first to perish, and from this point upwards the affection spreads very slowly, often with little pain and no constitutional disturbance. In this case the circulation of the forearm and hand was instantaneously either arrested or so impeded that the whole speedily perished.

## MIDDLESBOROUGH COTTAGE HOSPITAL.

### CASE OF HEPATITIS.

(Under the care of Dr. VEITCH.)

E. C., aged forty-three years, six feet high, rather thin, of very active habits; lived freely, rarely to excess, his beverage being generally the lighter kinds of wine, although latterly he has preferred sherry. He has resided in Paris and Warsaw, but has never been out of Europe. While at Warsaw, fifteen years ago, he suffered from inflammation of the bowels. Numerous cupping marks remain to attest the severity of the disease; and he has since had several attacks of dysentery. During the last four or five years he has been subject to catarrhal diarrhœa, occasionally accompanied with icterus, always occurring during the cold (generally east) winds; the changing temperature bringing with it relief.

November 29.—While entertaining visitors the previous night he was suddenly attacked with stabbing pains in the right side in the region of the liver, followed by severe frontal headache, retching, sleeplessness, thirst, and an intolerable parched sensation in the mouth. Morn.: He is jaundiced; tongue moist. On auscultation and percussion the heart and lung sounds are found to be natural. The liver is enlarged in an upward direction to within an inch of the right mamma. There is great tenderness over the liver and very great tenderness over the gall-bladder. Pulse 80. Even.: Pulse 90. Urine scanty and high coloured. Bowels have not been relieved since yesterday.

30th.—Morn.: More jaundiced; skin moist; tongue white, furred, and moist; abdomen tense; retching has ceased: bowels have been relieved of a pint of flocculent mucus fluid mixed with green fæces, smelling offensively. Had rigors during the night, one paroxysm lasting an hour. Has had no sleep. Was slightly delirious; is now calm. Urine copious; high coloured. Pulse 70. Even.: Skin dry and hot; tongue dry. Passed three more stools; first—half-pint of white opaque stringy mucus; second—like last, chopped up; third—half like last, and remainder white relaxed fæces. Had several rigors during the day, which were milder and of shorter duration than those during the night. More delirium. Pulse 120. Urine normal quantity; high colour. Diagnosis: Enlarged congested liver; inflammation of surrounding viscera, probably duodenum, common and gall ducts.

December 1.—Morn.: Skin moist; tongue moist. Purging ceased. No more shivering. Was rather delirious during the night; had short naps; is now quiet. Pulse 70; temperature 98°. Even.: Pulse 68; temperature 98°. Has been no delirium during day.

2nd.—Morn.: Appearance as before. Has taken largely of milk and soda-water. Pulse 60; temperature 98·5°. Even.: Mouth still occasionally parched; skin itchy; abdomen less tense; pain at hypochondrium less. Has been restless during the day. Pulse 80; temperature 100°.

3rd.—Morn.: Skin moist; tongue moist. Has passed a motion of fair consistence, slightly coloured with bile pigment. Has slept four hours. Pulse 60; temperature 98°. Even.: Skin dry; tongue dry. Complains of pain in the right shoulder; is occasionally slightly delirious. Pulse 88; temperature 102°.

4th.—Morn.: He is more sallow; abdominal muscles flaccid; less pain on pressure over the liver. Pulse 80; temperature 99°. 5.30 p.m.: Seen in conjunction with Dr. Ellerton. Pulse 110; temperature 101·1°. He has just had a rigor. 12.15 midnight: Tongue moist; skin moist. Has had a stool less fluid than the last, and darker coloured. Pulse 70; temperature 98·2°.

5th.—Morn.: Less jaundiced; less pain on pressure over hypochondrium. Passed a healthier stool. Has taken freely of milk and soda-water. The respiration slightly hurried. Has had a short rigor; slept a little; has been no delirium. Pulse 88; temperature 98·2°. Even.: Skin moist; another small motion darker coloured. Pulse 90; temperature 102°; respirations 32. Had another slight rigor.

6th.—Morn.: Less jaundiced; tongue moist. Had another small stool containing more colouring matter. Slept two hours and a half, and had frequent naps; another slight rigor. Respiration easier; pulse 64; temperature 97°. Even.: Skin moist; tongue dry; abdomen remains flaccid. Bowels have been twice moved; last stool contained undigested pulp of grapes; both stools are more fluid, and of natural colour. Respiration easier; has been rather delirious; pulse 100; temperature 102·1°.

7th.—Morn.: Icterus less; skin moist: tongue moist; abdomen still flaccid; less pain on pressure; there is very slight bulging near ensiform cartilage. Passed a quieter night, and had no delirium. Pulse 72; temperature 99·5°. Even.: Had three shivering fits during the day. Pulse 70; temperature 98·1°. Urine copious; high coloured.

8th.—Morn.: Appearance as before. Had two stools, both nearly natural. Respiration natural; slight pain when lungs are fully inflated. Has coughed up a small piece of rusty sputa the size of sixpence; has been rather delirious during the night, is now calm; slept three hours; had shiverings. Pulse 80; temperature 98·2°. Even.: Pulse 90; temperature 100°. Slept three hours; has had a rigor.

9th.—Morn.: Skin sallow and dry; tongue moist; respirations rather quicker; more pain at hypochondrium on pressure. Passed a stool nearly natural in colour, containing some mucus. Slept two hours; had two rigors. Pulse 110; temperature 102·2°. Even.: Seen in conjunction with Dr. Charlton, of Newcastle. We found the patient in a severe rigor of half an hour's duration, during which the temperature was 98·5. On reaction setting in it was 102·2°; pulse 90. Bulging near ensiform cartilage is slightly diffused; diagnosis of hepatitis confirmed.

10th.—Morn.: Tongue dry; has been delirious during the night; is now quiet. Takes less food. Urine scanty. Pulse 96; temperature 101·1°. Even.: Appearance pale and anxious; respiration natural; pulse 64; temperature 95·5°.

11th.—Morn.: Skin moist; more jaundiced; has not been delirious. Slept a little during the night; had a rigor at three o'clock. Passed a copious light-coloured stool. Pulse 92, weak. Has just had another rigor, during which temperature was 98°, afterwards rose to 101·5°. Swelling at ensiform cartilage more apparent. Even.: Slept a little; has been quiet. Pulse 80; temperature 97°; respiration natural.

12th.—Even.: More jaundiced; slept very little over night, being slightly delirious at times; had two rigors; had three trivial motions. Pulse 68; temperature 94·5°. 10 p.m.: Tongue parched; is extremely restless; respiration much quicker. Pulse 124; temperature 101°. Has had two fluid motions.

13th.—Morn.: More emaciated, more jaundiced; tongue moist. Has taken very little support. Perspired freely during the night; respiration calm; been delirious at times during the night; had two rigors, milder in character. Pulse 92; temperature 99°. Even.: Had a slight rigor during the day. Pulse 88; temperature 96°. Retention of urine.

14th.—Morn.: Increased icterus; tongue moist; respiration calm; perspired a little. Has been very restless during night; had two long rigors. Takes more support; passed urine copiously, containing large quantities of lithates. Complains

of stabbing pain at the liver. Ensiform swelling slightly increased. Pulse weaker, 72; temperature 96°. Even.: Tongue dry and parched; has been lying on right side for first time; has been quiet during the day, except two shiverings. Respirations 32. Passed two stools—one healthier and more solid, the other fluid; urine copious. Pulse 110 (weak); temperature 100°.

15th.—Morn.: Tongue moist and furred. He has been lying upon each side. Had restless night and two long rigors. Passed per anum twenty ounces of fluid, mostly pus, with numerous triple phosphate crystals; had great pain in passing it. Most of the pus corpuscles are unaltered, leading to the conclusion—in which Dr. Charlton agrees—that the abscess has burst into the colon. Urine examined at the same time, contained no such crystals. Respiration natural; pulse 70; temperature 95°. Even.: Countenance pinched. Has had a very quiet day; slept more and taken more food. Bulging at ensiform cartilage has disappeared; had a rigor, during which temperature 101°, afterwards 104°; pulse 110.

16th.—9.30 a.m.: Had a restless night; two more rigors. Respirations 56; pulse 160, feeble. Passed loose stool, containing pus cells. 1.30 p.m.: Pulse 130; temperature 101°; respiration hurried. 9 p.m.: Has been quiet; slept half an hour; respiration easier. Passed loose stool, still containing pus. Taken freely of milk and brandy. Pulse 80; temperature 95°. Urine copious. He is now quite unconscious.

17th.—Morn.: Lower jaw moves constantly up and down, snapping; respiration hurried. Had two loose stools, containing pus cells. Taken freely of milk and brandy. Slept half an hour during night; had two rigors, the first lasting an hour. Pulse 130; temperature 101·5°. Even.: Has had occasional naps; slept an hour and a half; one rigor; respiration easier. Passed a stool of darker colour and more consistence. Pulse 100, very weak; temperature 98·5°.

18th.—Morn.: Peculiar movement of jaw continues; had one rigor during night, lasting half an hour. Has passed three loose dark-coloured stools. Pulse 96; temperature 95°. Takes freely of milk, brandy, and soda-water. Even.: Respirations 32. Another loose stool, darker coloured. Pulse 90; temperature 96·5°.

19th.—Morn.: Had during night an attack of epistaxis, some of the blood passing into the air-passages and stomach, afterwards coughed and vomited up; had two rigors, followed by great prostration; had three loose dark-coloured stools. Pulse 116; temperature 99·5°; respirations 40. Even.: Tendency to coma. Passed a stool, lighter coloured. Pulse 92; temperature 97°; respirations 36.

20th.—Morn.: Passed restless night, taking little or no nourishment; pupils dilated; tongue parched; sordes upon the teeth; skin moist. Pulse extremely feeble and quick; temperature 104·5°, which gradually came down during the day to 100° at 5.15 p.m. He died at 8.40 p.m.

*Treatment.*—To stimulate, allay thirst, and modify the formation of pus (?), effervescing draughts—dilute hydrochloric acid, lemon-juice, and carbonate of ammonia. One grain of opium to be given during the rigor, and one grain and a half of quinine three times a day; bismuth and lime-water when purged; seidlitz-powders as an aperient when required. Poultices applied to hypochondrium.

*Diet.*—Milk and soda-water; beef-tea; calf-foot jelly; grapes were given until passed undigested; soups; and arrowroot. Towards the termination of the case, when stimulants were needed, brandy and soda-water and champagne were administered as required.

*Post-mortem, forty-eight hours after Death.*—It was made in the presence of Drs. Ellerton, Crowe, and Veitch. He is in appearance rather thin, tall, and sallow. Fair amount of adipose tissue in abdominal parietes. Stomach distended with gas. Omentum loaded with fat. Spleen normal, adherent posteriorly. Kidneys natural in size, rather congested. Duodenum congested and containing mucus. Liver very much enlarged, weighing seven pounds and three-quarters, easily separated from diaphragm. Upper surface appears healthy, excepting that in the left lobe there are several dusky spots, two of which are almost black. A cretaceous gall-stone, weighing sixty grains, impacted in shrivelled-up, almost obliterated, gall-bladder, the wall of which is very much thickened and indurated. Bile-duct occluded and embedded in a mass of adhesions, containing duodenum, pancreas, omentum, and transverse colon, the latter firmly adherent to the gall-bladder and communicating with it by a sinus passing through the gall-bladder into the centre of the right lobe, communicating with many abscesses. A small abscess, the size of a hazel-nut, situated just above the gall-bladder in the substance of the liver. The right lobe in section is studded with abscesses to infiltration, and burrowed with sinuses, the substance of the liver being in many places near the base completely disorganised. The left lobe contains three large and many small abscesses, evidently of recent formation.

*Remarks.*—This case presents several interesting points worth remarking. Jaundice was present more or less during the whole of the attack, which Frerichs says is rather rare. The rigors during night came as a rule in couples, the second being an echo of the first, these rigors setting up peristaltic action, and causing evacuations. The comparative absence of perspiration, pain in the shoulders, and vomiting. The extreme irregularity of the temperature, even during the rigors. The peculiar motion of the lower jaw, due probably to some reflex action through the pneumogastric, which I have never read of or seen before. From the repeated occurrence of catarrhal symptoms previous to this attack, the mucous discharge at the commencement of the disease, and the presence of cretaceous matter in the gall-bladder, it is probable that there was inflammation of the duodenum, which, extending, caused contraction of the biliary passages (Rokitansky) and ultimate obliteration. The calculus increasing the irritation, "giving rise to abscess in the liver, and establishing fistulous passages."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# Medical Times and Gazette.

SATURDAY, NOVEMBER 28, 1874.


## THE LAW OF HOMICIDE.

Our readers will recollect that a Bill to amend the law relating to homicide was introduced to the House of Commons last year, but was not proceeded with. The subject is one of extreme interest, however, and must yet be dealt with, and we gladly note an admirable address on it by Dr. Bucknill at the West Riding Asylum.

Dr. Bucknill quoted from the recent Select Committee of the House of Commons the statement that the law of homicide is not to be found in books or statutes, but in a kind of oral tradition and understanding amongst lawyers which can only be acquired by practice, and that to any but practising lawyers it is impossible to declare what the law of homicide is. Dr. Bucknill affirmed that this Select Committee

had gone far to determine that this condition of the law was an anachronism and a scandal. He considered that the action of Parliament in choosing a mixed committee of lawyers and laymen to analyse the law of homicide justified a layman in commenting upon the subject. Mr. Fitzjames Stephen had been entrusted with the command of the draft Bill for the amendment of the law of homicide; and after being read a second time the Bill was submitted to a Select Committee of eighteen members, comprising some of the ablest men, lay and legal, of the House of Commons. It was finally agreed that it was not desirable to proceed with the Bill; but the lateness of the determination may have had something to do in fixing the resolution of the Select Committee. Dr. Bucknill argued that the objections of the Select Committee may have had more to do with the form than the substance of Mr. Stephen's Bill. His method, notwithstanding the inherent difficulties of the subject, appears to have been scientific, and most of the changes which he proposed to introduce seem to have been humane and wise. The responsibility of leaving things in their present state must weigh heavily on someone's shoulders. There can be no donbt that the conclusions arrived at by the Commission with regard to the law of homicide show that it is impossible that the law could exist one unavoidable day after it had been reported on to the House of Commons in the terms employed by the members of the Commission. The old definition of murder (said Dr. Bucknill)—that it was killing with malice aforethought—is quite obsolete as far as the forethinking or premeditation is concerned. Mr. Stephen and the judges quite concurred on that point. With regard to the materials collected by the Parliamentary Committee, Dr. Bucknill adduced the following heads as indicating matters of special interest to the medical profession:—1. The definition of murder and manslaughter. 2. The difficulty of proving infanticide. 3. The difficulty of surgeons operating without consent. 4. The plea of insanity. On the first head the lecturer touched upon the point of definition already referred to, and then made some special observations on the plea of insanity, and the liability in the administration of anæsthetics. He showed that from Mr. Fitzjames Stephen's observations the latter had only an imperfect understanding of the relation between drunkenness and homicide, inasmuch as he concluded that "a man who was so drunk as not to know what he was about would hardly be likely to commit a murder." Mr. Stephen seemed to show an appreciation of only two conditions resulting from the use of drink—namely, conscious exaltation, in which a man was responsible; and delirium tremens. The conditions under which a man could commit murder in the latter state were imaginable, but not very probable; but lawyers were as yet comparatively ignorant of the condition of *delirium in potu* arising from the continued excitement of the stimulant, and not from the exhaustion springing from excess.

With regard to the point considered by the Parliamentary Committee, as to the responsibility of surgeons operating without consent, Dr. Bucknill quoted some amusing illustrations, and finally stated that before long a statute must be passed to render the law of homicide intelligible and precise. He commented keenly on the fact that, if lawyers are apt to cast in the teeth of medical witnesses that they utterly disagree, this investigation into the law of murder has led the distinguished and experienced lawyer who conducted the inquiry to state, with regard to the judges who have been examined by this very Committee, that "they flatly contradict each other."

## WAR IN ITS MEDICAL ASPECT.

Dr. Chenu, the well-known medical statistician, has just brought out a most interesting and instructive work on the Franco-Prussian war, which is worthy of study as giving appalling information on the disastrous influence of warfare—influence felt not only by individuals, but by whole nations.(a) The work is an entire history of the Franco-Prussian war—that is, the medical aspect of it,—and many of the facts there brought out would make the stoutest heart shudder, and the most ambitious sovereign think twice before exposing his subjects to such wholesale murder. If facts are stubborn things, figures are none the less so, at least in the present case, as they have been worked out with the most unimpeachable sincerity and disinterestedness. The accounts given in the work speak with the sincerity of a photograph and all the eloquence of statistics; and what adds interest to the information therein contained is, the author gives the names of the sick and wounded who have survived, with the nature of their illness and the operations and the treatment they were subjected to, thus affording living testimony of the correctness of these reports. But notwithstanding his most strennous efforts to obtain precise information, Dr. Chenu has never been able to ascertain the total number of French losses caused by this terrible war; and, indeed, he tells us the information respecting the German armies is not more complete. It is, however, unquestionable that the casualties of the French army were considerably more numerous than those of the Germans, as is shown by the following figures:—The number of deaths computed in the French army is 138,871, whereas among the Germans it amounts to only 64,779. In this last number the mortality from diseases is included, and amounts to 12,174; whereas on the French side the mortality would be considerably increased by this latter item. "This," according to Dr. Chenu, "may be explained by the difference of hygienic circumstances. The enemy were in free communication with their own country; independently of what they extorted or requisitioned from the French, they received from Germany regular supplies of food and clothing. They were not decimated by small-pox as we were, nor were their hospitals or ambulances so overcrowded as ours." A French writer commenting on these lines makes the following interrogatory remark:—"Have we not here a terrible lesson?" "In the ambulances on the field of battle," continues Dr. Chenu, "no medicine was used, and the patients got as a common drink wine-and-water, hot or cold, according to the season." Dr. Chenu, moreover, recalls the fact that the Prussian army was provided with pocket-books, containing printed instructions on the most elementary principles of hygiene, on the life of soldiers in the field, on their food, their drink, the manner of cooking their meat, rules respecting their clothing, boots, etc. The French have, at least, we may hope, learned one lesson, which is—that in the field the soldier ought to be well fed, the quantity being increased beyond what he receives in garrison; and it should, as far as possible, be of the best quality, and varied in its nature. "By these means," observes Dr. Chenu, "you will secure moral and physical force, good health, and good spirits"; and he is certainly far from exaggerating the requirements of a good soldier as proved by the experiences of the Americans in their last suicidal war. "All the force of the infantry," he adds, "is in the legs: the infantry soldier must, therefore, be well shod; he ought to wear strong ankle-boots with thick soles, and comfortably loose, so as not to interfere with the soldier's movements." "When a regiment of cavalry is about to move, the horses' hoofs are examined, and those that are too long are pared. When a regiment of infantry is about to proceed on a long march, the soldiers' feet ought in like manner to be examined, and those that are affected with corns and bunions, or ingrowing of the nails, or long nails, ought to be attended to:" the force of which may be seen by the statement made in Dr. Chenu's book, that the number of men who were obliged to

(a) "Aperçu Historique, Statistique, et Clinique sur le Service des Ambulances et des Hôpitaux de la Société française de Secours aux Blessés pendant la Guerre de 1870-1871."

fall out and be placed on the sick-list from sore feet alone amounted to 11,421. In the Prussian army the scutries were provided with furs in the proportion of 100 per battalion of foot, and fifty per regiment of cavalry, which would account for the small number of cases of congelation among them; whereas the French troops suffered to an alarming extent from the effects of the frost. In the table of casualties we find the appalling statement that 328,000 men were placed *hors de combat* from insufficient clothing! The information given by Dr. Chenu respecting the seat of the wounds is of the highest interest, inasmuch as it confirms what has been stated elsewhere—viz., that the Prussian soldiers were directed always to aim at the lower extremities,—as is shown by the following table:—Number of wounds of the head and neck, 9376; of the trunk, 20,243; upper extremities, 19,588; lower extremities, 22,236. But what adds to the importance of Dr. Chenu's work is the description given in it of the nature of the wounds treated in the different ambulances, the mode of treatment adopted in each class of cases, the operations performed, and the results obtained. In cases of death, Dr. Chenu always afforded, as far as practicable, proper explanation of the cause or causes of the fatal issue—whether dependent on the nature of the malady or wound or on defective hygienic measures so notorious in French hospitals. This part of the work is most interesting, containing, as it does, observations taken at the bedside, which are not to be found elsewhere. The second volume of this remarkable work merely contains a list of the sick and wounded who have survived and have obtained pensions or donations from the Society. This list occupies 1000 pages of the volume, each page containing, on an average, twenty names, which would furnish a total of 20,000 infirm men that the war has bequeathed to the country, among whom are not included those who have not received or applied for assistance.

## THE TYPHOID EPIDEMIC IN LEWES.

Dr. Thorne Thorne, the Medical Inspector from the Local Government Board, has formally stated to the Sanitary Authorities of Lewes the result of his investigations into the causes of the late outbreak of typhoid fever in that town. During the last three months there had been about 450 cases of fever, twenty-seven of which had terminated fatally. The beginning of the disease had not been traced to any one particular spot, but it had appeared suddenly in all parts of the town, differing from each other topographically in their drainage and in their milk-supply. But one thing was common to all, and that was the use of the Town Company's water; "and although not half of the houses in Lewes were supplied with this water, yet the epidemic in its early stages had almost exclusively attacked the town water-drinkers." According to the account we have seen of Dr. Thorne Thorne's statement, he adduced statistics which conclusively supported this theory; and then showed that, in his opinion, the water had been accidentally polluted by a supplemental supply which had been obtained during a time of drought from a water believed to be pure, "but which he had found was subjected to pollution by the influence of the tide carrying water from the Ouse, which river receives the town sewage, up to an inlet of one of the Company's reservoirs." This pollution was, however, only temporary; "the main spread of the outbreak" the inspector believes to have been "due to specifically foul air, and probably also to particles of the specifically diseased evacuations of patients being drawn into the water mains, this pollution being facilitated by means of pipes carried directly from the water-mains into closet-pans, the system of water-supply being intermittent. Owing to this arrangement, each time the water was turned off the mains, foul air could have been sucked up into the pipes from the closet-pans." Dr. Thorne Thorne acknowledged the readiness with which the various sanitary authorities of the town had, regardless of trouble and expense, complied with every suggestion he had made in the endeavour to arrest the spread of the epidemic. One of the most essential measures which he had recommended was the provision of a constant water-supply; and he was able to point out that, since the adoption of this and other proposals that he had made, the epidemic had rapidly declined in intensity.

Dr. Thorne Thorne's report is one of great importance and interest, as pointing out the necessity of searching in various directions for the sources of mischief in these outbreaks of fever, and of examining all the possible inlets by which infection may gain admission. It is especially notable as illustrating the dangers of pollution by sewer-gas, and one of the modes in which that pollution may be brought about. This is a source of peril, to the actual and practical existence of which the public mind has not yet been at all sufficiently awakened. We have not yet seen any authentic report on the sanitary state of Clifton, about which there was an alarm lately; but we understand that there is reason for believing that there great mischief has arisen from a condition of the sewer system which permitted of an easy escape of sewer-air into the houses, and we gladly note anything that can help to draw public attention to the subject.

## ELECTION OF A MEDICAL CORONER FOR CENTRAL MIDDLESEX.

For upwards of twenty years a number of the Middlesex magistrates have attacked the medical coroners for the county for ordering what appeared to them to be unnecessary post-mortem examinations. The magistrates, of course, founded their opposition to these examinations on public grounds; they were a tax upon the ratepayers, and they should therefore be abolished. This pseudo-economy—this interference with the rights and duties of a most important officer—were founded on most erroneous conclusions. That the persecution to which Mr. Wakley and Dr. Lankester were subjected was a source of much unjust annoyance to them, cannot be doubted. The freeholders of Middlesex have shown by a considerable majority that they do not sympathise with a cheeseparing economy of the "great unpaid" of the metropolitan county; and by a considerable majority they have elected Dr. Hardwicke, the deputy of Dr. Lankester, to the office of Coroner for the Central Division of Middlesex. We think this is a triumph to the medical profession. Dr. Hardwicke, we trust and believe, will carry out the practice of his predecessors with respect to post-mortem examinations. Whatever objections may be raised to a medical coroner, it is certain that he is far more qualified to determine when a post-mortem examination is necessary than any lawyer, however capable he may possibly be. It is a remarkable fact that the post-mortem examination of a deceased person may be the main, if not the only evidence upon which a righteous verdict could be arrived at. Captain Morley, if he be discreet, will probably for the future be less ready to find fault with the coroners' accounts when they are brought before the magistrates. Upwards of 1100 freeholders in Middlesex have repudiated his interference, and they have equally ignored the suggestion of Mr. Northall Laurie that the freeholders of Central Middlesex should appoint a lawyer as their coroner instead of a doctor. If the result of the late election fail to convince Captain Morley and Mr. Northall Laurie that they are wrong, *quæstio cadet*.

## THE WEEK.

### TOPICS OF THE DAY.

Lord Derby, in replying to a letter from Principal Sir Alexander Grant, informing him of his election as Rector of the

University of Edinburgh, says—"I am favoured by your letter announcing my election as Rector of the University of Edinburgh. I thank you for this very welcome communication, and for the kind and courteous terms in which it is conveyed. I accept with pleasure and gratitude the honour thus conferred upon me."

Dr. Hardwicke, as Coroner for Central Middlesex, commenced his duties on Tuesday, by holding some inquests in St. Giles's. A medical practitioner, in one case, who had attended the deceased stated he could have formed an opinion of the cause of death without making a post-mortem examination. The Coroner remarked that as an opinion of the cause of death could have been formed without a post-mortem examination, it was obviously an unnecessary expense. Medical gentlemen must use their discretion with a due regard to this point. In this opinion the jury concurred. If the circumstances are correctly reported, it would be desirable to know what information was conveyed by the medical gentleman in question to the coroner's officer previous to the issue of the summons.

We quote with satisfaction the following sensible remarks in a leading article of the *Bridgwater Mercury* of the 18th inst. It would be well for the Bridgwater community if they had a few more aldermen possessed of the sagacity and public spirit of Alderman Hammill:—"The Registrar-General's quarterly return of births, deaths, and marriages in Bridgwater and some neighbouring parishes will be perused with much interest and satisfaction. The rate of mortality in Bridgwater has, during the past quarter, been greatly below the average of the three corresponding periods. The total number of deaths during that period were fifty-four, as compared with 131 births, being an increase of the population in three months only of seventy-seven. Of the deaths it is satisfactory to add that eleven were those of infants under one year, and that nineteen had attained the age of sixty years and upwards. All this is very satisfactory, especially when compared with the somewhat alarming statistics which Dr. Blaxall, of the Health Department of the Government, presented to the Town Council about six months ago. It will be remembered, however, that his report was the result of an investigation of the cause of, and the circumstances attending, an epidemic of measles, which proved fatal in a large number of cases, and that he took great pains to ascertain the full extent of mortality arising from that and other epidemics from which the town had suffered, notably that of small-pox. The fatality attending these, of course, greatly increased the average mortality, and the present return of the Registrar-General bears testimony to the fact that, freed from such epidemics, the mortality in Bridgwater bears very favourable comparison with that of most other towns. Cases of small-pox, fever, and measles unexpectedly occur at intervals everywhere, and are often unpreventable; but it is important to bear in mind that the Government official to whom we have alluded, and whose report was, to some extent, confirmed and strengthened by that of Mr. Parsons, the local Medical Officer of Health, directly attributed their assuming an epidemic form, and being attended with such fatal consequences in Bridgwater, to causes which are remedial. When the sanitary precautions so strongly recommended by both of those gentlemen shall have been adopted, the Registrar-General's report, favourable as it now is, will no doubt be of a still more satisfactory character. The water-supply question—which every now and then comes to the front, and, after being earnestly discussed, is again allowed to drop—is, of course, of chief importance; but other sanitary precautions that are needed may be at once observed. The great accumulation, for instance, of the refuse of the town, including a quantity of manure, in the Corporation field in North-street, to which Alderman Hammill again directed attention at the last Council meeting, should no longer be permitted to remain there. Further attention is drawn to this subject by a correspondent in this week's issue, and it is self-evident that such 'a mass of pollution,' as he describes it, deposited in a field adjoining one of the main entrances to the town, and in close proximity to thickly populated dwellings, must be prejudicial to the public health. It is true that efforts have been made to obtain a place for its deposit further from the town; but, failing this, it is monstrous that the consideration of its enhanced value, in a commercial point of view, if disposed of at certain periods of the year should be allowed to influence the Council in permitting so vast an accumulation of filth. We trust that the Health Committee of the Council will see to its removal forthwith."

Since Mr. Disraeli communicated to the President of the Royal Geographical Society the information that the Government had determined on sending out a new Polar Expedition, Sir Leopold McClintock has been busy inspecting steam whalers, and selecting the vessels which are to be fitted out under his own superintendence for the Expedition. We understand that more than two hundred volunteers offered themselves very shortly after the determination of the Government was made known, and there is no doubt that the whole number of the officers and men required for the expedition will be obtained by volunteering.

The examiners at the ensuing examinations at Oxford for the degree of Bachelor of Medicine are—Dr. Chambers, Dr. Ogle, Mr. T. P. Teale, M.A., M.B., Professor Rolleston, Mr. Dale, M.A., and Professor Odling.

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### DEPUTATION FROM THE KING AND QUEEN'S COLLEGE OF PHYSICIANS TO THE CHIEF SECRETARY FOR IRELAND.

On Monday afternoon, November 23, the President, Vice-President, and a number of the Fellows of the King and Queen's College of Physicians had an interview at Dublin Castle with Sir Michael E. Hicks Beach, Bart., Chief Secretary for Ireland. The object of the deputation was to present a memorial in reference to the salaries granted to the sanitary medical officers appointed under the Public Health (Ireland) Act, 1874. Sir Alfred Power, Vice-President of the Local Government Board for Ireland, was also in attendance, with the Chief Secretary, who is himself President of the Board. The following Fellows of the College of Physicians were present:—Dr. Duncan, President; Dr. Henry Kennedy, Vice-President; Dr. Evory Kennedy, Dr. Churchill, Dr. Cryan, Dr. Duffey, Dr. Grattan, Rev. Dr. Haughton, F.T.C.; Dr. Hayden, Dr. Johnston, Dr. J. W. Moore, Dr. William Moore, Dr. Sinclair, and Dr. Finny, Registrar. The President of the College having apologised for the unavoidable absence of Sir Dominic Corrigan, Bart., Dr. Stokes, Dr. Hudson, and Dr. Head, called upon the Registrar to read the memorial, as follows:—

"The memorial of the President and Fellows of the King and Queen's College of Physicians in Ireland humbly sheweth,—That your memorialists desire to express a general approval of the provisions of the Public Health (Ireland) Act. That they regard the appointment of the dispensary medical officers as sanitary officers, under Section 10 of the Act, with much satisfaction, as a recognition of the necessity of placing the medical profession in the foremost rank of an organisation for purposes of public health. That they are fully conscious of the number, significance, and novelty of the duties which will have to be discharged by the sanitary officers under the Act—the most important of which duties can only be efficiently performed by medical men, in consequence of their education, qualifications, and training. That the responsibility of carrying into effect the principal of these duties—namely, the reporting upon nuisances, the investigation of outbreaks of preventable disease, the prevention of the spread of sickness,

the examination of air, water, and food; the drawing up of periodical reports on the health of sanitary districts, and the compilation of statistics of disease—is especially imposed upon the medical sanitary officers. That the remuneration so far offered by the local sanitary authorities to the medical officers of health is quite inadequate, when regard is had to the multifarious and very responsible nature of the duties to be performed by them, and to the qualifications required of them. Lastly, and especially, that the interests of the community at large imperatively demand—on the grounds equally of humanity, justice, and economy—that the Public Health Act should be carried into effect in the best manner, and by willing officers. For all these reasons your memorialists respectfully pray that you will take steps to secure a favourable consideration of the question of the apportionment of equitable and sufficient remuneration to the sanitary medical officers of Ireland in their endeavour to advance the public weal."

The President, the Rev. Dr. Haughton, Dr. Grattan, Dr. Evory Kennedy, Dr. Grimshaw, and Dr. William Moore having spoken in support of the prayer of the memorial, Sir Michael Beach replied. He willingly admitted that it was the duty of the Government to see that the sanitary medical duties were efficiently performed, and the officers properly paid. Many cases of inadequate salaries had come under his notice; still each case must be judged on its own merits. It now remained for the Local Government Board to approve or disapprove of the salaries that had been fixed. He had no doubt that in all cases in which it was shown that salaries were inadequate, boards of guardians would deal with the matter in a fair and liberal spirit.

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LECTURE BY DR. RICHARDSON, AT HULL.

On Wednesday last, Dr. Richardson delivered, by invitation, a lecture in the Royal Infirmary, Hull, the subject being the Pathology of Pectous Changes. Sir Henry Cooper was unanimously voted to the chair, and the staff of the Hospital, with many of the practitioners of the town and neighbourhood, were present. The lecturer made demonstrations of several of the experiments we have already recorded in our pages, adding others that were new, in illustration of his theory. One of the most noteworthy parts of his lecture had reference to his view that in the body there is only one form of colloidal matter, and that all variations of it known under the different names of fibrine, gelatine, albumen, globuline, caseine, chondrine, are but modifications of the simple colloidal form of matter, induced by combinations between it and water, through the medium of inorganic bases and salines which have affinity for water and fix it in combination. In illustration of this Dr. Richardson showed a number of methods in which he could transform fluid albumen by means of caustic soda. In one instance of this kind he turned out albumen from a little capsule shaped in solid form like a lens; in another experiment he produced a semi-elastic membrane; and in a third he showed a solidified mass like gelatine. The purest colloid is that which, by perfect dialysis, is freest of the fixing intermediate body, and in which the change of colloid from the soluble into the insoluble pectous form is most easily affected. Fibrine is a colloid in which this separation has been very nearly perfected, and is perhaps the closest approach to the pure form of colloidal matter in the animal body: hence the readiness with which it passes from the soluble into the coagulated or pectous condition. The pathological part of the lecture was a repetition, with several additional corroborative facts, of the view that rigor mortis, separation of fibrine in the blood, exudation of colloidal fluids, plastic deposits on membranes and in the structures of organs, crystalloidal and earthy deposits, cataract, and pectous modifications in nervous matter, are all modifications of one physical process.

Sir Henry Cooper, in moving a vote of thanks to Dr. Richardson, dwelt on the advantages attendant on the line of study which essayed to give simple physical readings to what seemed otherwise to be complex and inexplainable phenomena. It would be by methods such as Dr. Richardson followed and demonstrated that the nature of the structural changes incidental to disease would be ultimately discovered, and a long list of apparently diverse phenomena be brought under a few elementary forms. Mr. Craven, in seconding the resolution, referred to the lecture recently published by Dr. Richardson in the *Medical Times and Gazette*, and expressed the gratification he had felt of seeing the facts there recorded made matter of demonstration by the author.

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ANNUAL CONVERSAZIONE AT THE WEST RIDING ASYLUM.

On Friday, November 20, the annual *conversazione* was held at the West Riding Asylum, Wakefield, and excelled in brilliancy and in the number of visitors the corresponding meetings of former years. For those living in large towns, and enjoying many opportunities of meeting personally, it is almost impossible to judge of the importance of an annual gathering of medical men who have almost no other chance of meeting in a body or of watching the practical progress of medical science than that afforded by the courtesy of the director of a large public provincial institution.

At the invitation of Dr. Crichton Browne, between 200 and 300 of the medical practitioners of the West Riding of Yorkshire, and many distinguished medical men from a distance, met last Friday to hear an address from Dr. Bucknill, Lord Chancellor's Visitor of Lunatics, to judge for themselves of the progress of medical science, and to engage in the profitable converse which busy practitioners widely separated have rarely the opportunity of enjoying. The large and well-proportioned hall of the Asylum was decorated and arranged for the purpose of conducing to the comfort and edification of the professional visitors; and the general approval which greeted every step of the proceedings was sufficient to show how much every guest appreciated the efforts of Dr. Browne to provide for the entertainment of all. A well-filled table of pathological specimens, supplied mainly from the museum of the West Riding Asylum, was furnished, in addition, with preparations of great illustrative value from the collection of the Leeds School of Medicine and from the private museum of Dr. John Duncan, of Edinburgh. An excellent table of photographs, illustrative of cases at present or formerly in the Asylum, was superintended by Dr. John Wallis. A stall for scientific and surgical instruments was presided over by Dr. T. W. Benham, who, in the course of the evening, demonstrated Ludwig's *Strom-uhr* as a method of determining the amount of blood passing through any vessel in a given time. At this stall the instruments in the possession of the Asylum were supplemented by others lent by Dr. Lauder Brunton and Messrs. Maw, Son, and Thompson. The fourth stall, superintended by Mr. C. E. Watson, of King's College, assisted by Mr. Bracey, the Apothecary of the Asylum, was fitted with numerous specimens of new drugs, and many magnificent samples of crystallised alkaloids, etc., lent by Messrs. Smith, of Edinburgh. At the fifth table Dr. Herbert Major exhibited some of the results of his microscopic researches into cerebral histo-pathology, which have done so much to identify the West Riding Asylum with the progress of brain-histology. At the same time, Dr. Major showed some brain-sections by Dr. Tempest Anderson, which could not possibly fail to elicit expressions of enthusiastic admiration from anyone who had ever attempted to prepare microscopic slides. At the same stall, brain-slides by Dr. Clifford Gill and Dr. Batty Tuke, and lucid micro-photographs from the collection of Dr. Gray, of the New York Asylum, Utica, were exhibited, to the satisfaction of all professional visitors.

Dr. Bucknill's able address, which we have noticed fully in one of our leading articles, was devoted to the subject of

responsibility for homicide, though it in reality rather related to the law of murder.

During the supplementary transactions of the *conversazione*, Dr. Heaton, Mr. Wheelhouse, Dr. Bucknill, Mr. Ernest Hart, and Dr. Clifford Allbutt expressed incidentally their high appreciation of the West Riding Asylum as an institution for the treatment of the insane and a school of original scientific observation; and subsequently many of the visitors from a distance had an opportunity of inspecting the Asylum and of judging for themselves of the high and progressive character of the retreat as an institution comfortable to all who reside in it, and gratifying to all who may visit it.

During the course of the evening, the band of the Asylum, containing about thirty attendants, played classical selections from Auber, Strauss, Verdi, Bellini, etc.

### THE EUCALYPTUS GLOBULUS IN INDIA.

From reports recently received in this country, it would appear that the attempts to introduce the *Eucalyptus globulus* into India have proved almost a failure as far as the plains are concerned, and that there seems but little chance of acclimatising this tree, which is reported to possess so much virtue in destroying malaria. The Sanitary Commissioner of the Madras Presidency, in a report addressed to the Government, states as follows:—"I have personally been endeavouring to grow the eucalypti in Madras, but, so far, without any hope of success. The seeds germinate, and the plants grow rapidly under shelter, but they seem unable to bear the great solar heat, and die off when planted out. They thrive but indifferently in the elevated plateau of Mysore, and it is only in our hilly ranges, with elevations of 4000 feet and upwards, that they appear to grow vigorously. Judging from the experimental trial of these trees in Madras, I do not think that there is any chance of their flourishing in the delta of the Godavery River." Dr. Cornish is, however, of opinion that the eucalyptus is not the only tree which possesses health-giving properties, but that other kinds may be used for the purpose with equal advantage. "Thus," he adds, "the supposed virtues of the eucalypti in neutralising miasmata are probably exaggerated, and whatever power they have in this way is possessed in common with many other resinous-odoured plants, like casnarina, mango, jack, etc., which grow freely in the plains wherever they are planted and cared for. I would therefore submit that the spending of money on an exceedingly doubtful experiment is inadvisable, when experience has shown us that trees of similar properties with the eucalypti may be raised with every prospect of success in the eastern coast deltas."

### DUBLIN OBSTETRICAL SOCIETY.

The opening meeting of the thirty-seventh annual session of this Society was held in the Hall of the College of Physicians, Kildare-street, Dublin, on the evening of Saturday, November 21. The chair was taken by Dr. Evory Kennedy, the outgoing President. Amongst those who attended were the President and Vice-President of the College of Physicians; the President and Vice-President of the College of Surgeons; the Governor and Deputy-Governor of the Apothecaries' Hall; several army medical officers; the Dean of the Chapel Royal, Dublin Castle; the Dean of St. Patrick's Cathedral, etc. The report of the Society for the past year was read by Dr. J. R. Kirkpatrick, and showed that there were now 160 members, including twelve honorary members. The statement of accounts was very satisfactory, the balance in hand being £28 18s. 8d. The report having been unanimously adopted, the President delivered an elaborate address, in which he considered at length the views propounded by Darwin, Huxley, and Tyndall in relation to biology. At the conclusion of the address it was announced that the following officers for the session 1874-75 had been elected by ballot:—*President:* Lombe Atthill, M.D. *Vice-Presidents:* Thomas Darby, F.R.C.S.I., and John Cronyn, F.R.C.S.I. *Committee:* Fleetwood Churchill, M.D.; John Denham, M.D.; George Johnston, M.D.; George H. Kidd, M.D.; Alfred H. McCliutock, M.D. *Treasurer:* H. S. Halahan, L.K.Q.C.P. *Honorary Secretary:* J. R. Kirkpatrick, M.B. Dr. Lombe Atthill, the incoming President, having been called to the second chair, several votes of thanks were proposed and carried unanimously, after which the proceedings terminated.

### MEDICAL SOCIETY OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

The first open meeting of this Association took place on Wednesday evening, November 18. The President, Dr. James Foulis Duncan, delivered an inaugural address before an audience which included many distinguished visitors. The topics on which he dwelt especially were—"The Public Health (Ireland) Act," "The Question of the Efficacy of Prayer in Sickness," and the true interpretation of the text—"Is any among you sick? let him call for the elders of the Church, and let them pray over him, anointing him with oil in the name of the Lord; and the prayer of faith shall save the sick, and the Lord shall raise him up." The address concluded with an expression of regret at the retirement of Dr. James Apjohn, for so many years Professor of Chemistry in the University of Dublin, and with a graceful tribute to his worth and abilities. Dr. Hawtrey Benson detailed the particulars of a well-marked case of Cheyne-Stokes' respiration. After some remarks on it the visitors withdrew, and the Society proceeded to transact private business. A resolution to the effect that four vice-presidents should be appointed was proposed by Dr. Grimshaw, and carried. Accordingly, Dr. Henry Kennedy, Vice-President of the King and Queen's College of Physicians; Sir Dominic J. Corrigan, Bart.; Dr. Stokes, D.C.L.; and Dr. Alfred Hudson, were nominated and chosen as Vice-Presidents of the Society for the present session. A vacancy on the Council, caused by the elevation of Dr. H. Kennedy to the Vice-Presidency, was filled by the appointment of Dr. S. M. MacSwiney. The meeting then adjourned.

### SALE OF DISEASED MEAT IN LIVERPOOL.

We have often urged in these columns the necessity for a severer punishment than the imposition of a fine on persons convicted of exposing diseased meat for sale. These offences, it is at length evident, must be visited with the full severity of the law. We recur to the subject again in consequence of the apparently daring manner—prompted, no doubt, by its profitable results—in which this fraudulent trading is carried on in Liverpool, where fines have, it appears, had no deterrent effect. Dr. Taylor has reported to the Health Committee that there was an almost organised arrangement for making Liverpool a depôt for diseased meat, not only from Lancashire, but from some other counties round about. He understood that it was so profitable a trade that those who engaged in it could afford to lose four carcases if they could run one into consumption, and they employed all sorts of stratagems to throw inspectors off their guard. He hoped in future those convicted of exposing diseased meat for sale would be sent to prison, as fines of £10 or £20 had little or no effect, and he suggested that more inspectors should be employed.

### THE PROPOSED NEW HOSPITAL AT HAMPSTEAD.

The Hampstead Board of Guardians have unanimously resolved—"That this Board desires to co-operate with the Vestry of Hampstead in the attempt to obtain by every legitimate means the reversal of the present decision of the Asylums Board to erect on the present site a permanent hospital for contagious and infectious diseases."

SCIENTIFIC GRANTS BY THE BRITISH MEDICAL ASSOCIATION.

We announced lately that the British Medical Association had at its annual meeting authorised a grant for 1875 of sums not to exceed a total of £200 in aid of original researches in medicine and the allied sciences. We are requested to state that at the last meeting of the Committee of Council the time for receiving applications for aid from this grant was further extended till December 27 next. The Committee appointed to receive and report on the applications consisted of—Dr. Sibson, F.R.S. (chairman), the President of the Council, Mr. Southam, and the Treasurer, Dr. Falconer; *ex officio* members —Mr. Baker, Dr. Bastian, F.R.S.; Dr. Lauder Brunton, F.R.S.; Mr. Callender, F.R.S.; Dr. Michael Foster, F.R.S.; Mr. Hart; Dr. Sharpey, F.R.S.; Dr. Burdon-Sanderson, F.R.S.; Dr. W. F. Wade; Mr. Wheelhouse; and Dr. S. Wilks, F.R.S. Applications should be addressed to Dr. Sibson, Chairman of the Committee, 59, Brook-street, or to the General Secretary of the Association, Great Queen-street, W.C.

PROPOSED MEDICAL RATCATCHERS.

Our contemporary the *Pall-mall Gazette* on the 20th instant referred to a statement made by the steward at the last meeting of the Lambeth Board of Guardians as to the new workhouse at Kennington, the infirmary of which is infested by rats, which have become so numerous as to be very destructive, particularly in the provision stores and surgery. Various suggestions were made as to the best way of clearing a house of rats: in the end, adds our contemporary, "it was agreed to leave the mode of destroying the rats to the medical officer." This decision is perhaps the best that could be arrived at; and if the rats fall into the doctor's hands there will possibly be no occasion for the services of either a cat or a ratcatcher.

HEALTH OF LONDON.

Last week there were 1795 deaths in London, showing an increase of eighty on the average. The annual death-rate rose to 28 per 1000, the highest rate in any week since the beginning of the year. No fewer than 672 persons died of diseases of the respiratory organs and phthisis. Bronchitis showed the largest relative increase. The fatal cases of scarlet fever, which in the three previous weeks had been 128, 107, and 97, increased again last week to 124. The Small-pox Hospital at Homerton, in consequence of the prevalance of scarlet fever, has been made available for the reception of scarlet fever cases, and sixty-six out of its 102 beds were occupied on the 20th instant.

DIPHTHERIA AT WOOLWICH.

Diphtheria has been very prevalent of late in the huts or soldiers' cottages on Woolwich-common. The disease has been very fatal among children, lasting only about twenty-four hours. In thirteen or fourteen cases, all among children, since the 14th inst., eleven were fatal. Overcrowding is the alleged cause of the outbreak. Not a single case has been reported in the Royal Artillery Barracks. A medical officer makes a daily visit to the quarters of all the married soldiers in the Barracks. For the reception of those attacked, a large ward in the Herbert Hospital at Shooter's-hill, has been appropriated.

FEVER AT OVER-DARWEN.

The fever epidemic at Over-Darwen, which it was hoped was fast subsiding—there having been no death from fever reported since the 1st inst., and no fresh attacks up to the end of last week,—has, to the alarm of the medical gentlemen from the Local Government Board, and resident practitioners, broken out again. Three fresh outbreaks of typhoid fever were reported on Sunday last, but they were happily of a mild type.

UNHEALTHY STATE OF THE REGENT'S CANAL.

From the reports of the Medical Officer of Health and the Chief Surveyor of the Parish of St. Pancras on the sanitary condition of the Regent's Canal, it appears that a large amount of offensive matter is discharged into the Canal from various gullies, drains, etc., upon its course through the parish. The frequently highly offensive state of the water has not only been a subject of complaint, but the condition of the Canal generally has been a disgrace to those having authority over its management and supervision.

APPOINTMENT OF DR. MOUAT AS MEDICAL INSPECTOR UNDER THE LOCAL GOVERNMENT BOARD.

Dr. F. J. Mouat has been appointed to fill the vacancy caused by the death of Dr. Edward Smith in the staff of the Local Government Board. His duties will be those of Medical Inspector for the Provincial Poor-law Unions. Dr. Mouat's large experience in sanitary matters, both in India and at home, well qualify him for the office to which he has been appointed.

HEALTH OF SCOTLAND.

The deaths of 672 persons were registered in the eight principal towns of Scotland in the week ending the 21st instant, showing an increase of fifty-one on the corresponding week last year. This increase occurred in Glasgow, Edinburgh, and Dundee.

# ON THE PHYSIOLOGICAL ACTION OF THE CHINOLINE AND PYRIDINE BASES.

By JOHN G. M'KENDRICK and JAMES DEWAR, of Edinburgh.

It is well known that quinine, cinchonine, or strychnine yield, when distilled with caustic potash, two homologous series of bases, named the pyridine and chinoline series. Bases isomeric with these may also be obtained by the destructive distillation of coal, or from Dippel's oil, got from bone. Greville Williams has pointed out that chinoline obtained from coal-tar differ in some respects from that yielded by cinchonine. In this research the authors endeavoured to ascertain (1) the physiological action of the various members of the series; (2) whether there was any difference in this respect between the members of the series obtained from cinchonine and those got from tar; and (3) whether, and if so, how, both as regards extent and character, the physiological action of these bases differed from that of the original alkaloidal bodies.

The bases in both series are difficult to separate from each other; but this has been done as far as possible by repeated fractional distillation. The salt employed was the hydrochlorate. This, dissolved in water, was introduced by a fine syringe under the skin of the animal. The action of chinoline was tested on frogs, mice, rabbits, guinea-pigs, cats, dogs, and man; but as the effects were found to be similar in all of these instances, the majority of the observations were made on rabbits. The experiments with the other substances were made on rabbits and frogs. The physiological action of hydrochlorate of chinoline was first examined. Its action was then compared with that of the hydrochlorates of the chinoline series of bases distilling at higher temperatures, including such as lepidine, dispoline, tetrahiroline, etc. In the next place, the physiological action of the pyridine series was studied, beginning with pyridine itself, and passing upwards to bases obtained at still higher boiling-points, such as picoline, lutidine, etc. Lastly, the investigation was directed to the action of condensed bases, such as diprydine, parapicoline, etc.; and the effects of these substances were compared with those produced by the members of the chinoline series and among themselves.

The following are the general conclusions arrived at:—

1. There is a marked gradation in the extent of physiological action of the members of the pyridine series of bases, but it remains of the same kind. The lethal dose becomes reduced as we rise from the lower to the higher.

2. The higher members of the pyridine series resemble in physiological action the lower members of the chinoline series, except (1) that the former are more liable to cause death by asphyxia, and (2) that the lethal dose of the pyridines is less than one-half that of the chinolines.

3. In proceeding from the lower to the higher members of the chinoline series, the physiological action changes in character, inasmuch as the lower members appear to act chiefly on the sensory centres of the encephalon and the reflex centres of the cord, destroying the power of voluntary or reflex movement; while the higher act less on these centres, and chiefly on the motor centres, first as irritants, causing violent convulsions, and at length producing complete paralysis. At the same time, while the reflex activity of the centres in the spinal cord appear to be inactive, they may be readily roused to action by strychnine.

4. On comparing the action of such compounds as $C_9H_7N$ (chinoline) with $C_9H_{13}N$ (parvoline etc.), or $C_8H_{11}N$ (collidine) with $C_8H_{15}N$ (conia, from hemlock), or $C_{10}H_{10}N_2$ (dipyridine) with $C_{10}H_{14}N_2$ (nicotine, from tobacco), it is to be observed that the physiological activity of the substance is, apart from chemical structure, greatest in those bases containing the larger amount of hydrogen.

5. Those artificial bases which approximate the percentage composition of natural bases are much weaker physiologically, so far as can be estimated by amount of dose, than the natural bases; but the *kind* of action is the same in both cases.

6. When the bases of the pyridine series are doubled by condensation, producing dipyridine, parapicoline, etc., they not only become more active physiologically, but the action differs in kind from that of the simple bases, and resembles the action of natural bases or alkaloids having a similar chemical constitution.

7. All the substances examined in this research are remarkable for not possessing any specific paralytic action on the heart likely to cause syncope; but they destroy life either by exhaustive convulsions, or by gradual paralysis of the centres of respiration, thus causing asphyxia.

8. There is no appreciable immediate action on the sympathetic system of nerves. There is probably a secondary action, because after large doses the vaso-motor centre, in common with other centres, becomes involved.

9. There is no difference, so far as could be discovered, between the physiological action of bases obtained from cinchonine and those derived from tar.

## THE SANITARY LAWS AMENDMENT ACT.

In a recent impression we gave a summary of the most important provisions of the Act of last session as it applied to rural districts. The Local Government Board have also issued a circular addressed to the urban sanitary authority. We subjoin a summary of those clauses which define the powers of the sanitary officers:—

Section 2 removes doubts as to the time when the Public Health Act, 1872, came into force, and renders legal the proceedings of a sanitary authority which were previously open to question.

Section 3 declares that all the powers, liabilities, and obligations of a sanitary authority acting previously to the passing of the said Act apply equally to the urban sanitary authority to whom such responsibilities were transferred.

Section 5 prescribes the manner in which two or more sanitary authorities may agree jointly to appoint a medical officer, etc.

Section 19 confers special powers on the chief officer of police in any district for the recovery of his expenses from the authority in default with respect to the removal of nuisances. Orders of the Local Government Board may be enforced by a writ of *mandamus*.

Section 21 requires every urban sanitary authority, when the Local Government Board by order so direct, to make due provision for the proper cleansing of streets, the removal of house-refuse from premises, and the cleansing of earth-closets, privies, ash-pits, and cesspools within their district; with a penalty of 5s. a day upon the sanitary authority who fail, without reasonable excuse, for seven days after notice from the occupier, to remove the refuse or to cleanse the places above referred to.

Section 33 enables any sanitary authority, subject to the provisions of the Sanitary Acts, to buy up any water-mill, dam, or weir which interferes with the proper drainage of or the supply of water to its district, and, for the purpose of supplying its district with water for drinking and domestic purposes, to purchase either *within* or *without* its district any land covered with water, or any water, or right to take or convey water.

Section 40 enacts that every notice given on behalf of a sanitary authority shall be deemed to be sufficient if it be written or printed, or partly written and partly printed, and is duly signed.

Section 41 prohibits works from being executed at all if disapproved of by the sanitary authority, unless they can be shown to be in conformity with the law.

Section 45 enables sanitary authorities to make by-laws for regulating the lodging and treatment of hop-pickers.

Section 47 enables the Local Government Board to enforce certain provisions with relation to houses let out in lodgings, without necessitating previous application to the Board. The sanitary authorities are now further empowered to make regulations for the ventilation of rooms, the paving and drainage of premises, the separation of the sexes, and the notices to be given in case of any dangerously infectious or contagious diseases.

Section 50 provides that, upon representation to any sanitary authority that the water in any well, tank, or cistern, public or private, or supplied from any public pump, and used, or likely to be used, for domestic purposes, is so polluted as to be injurious to health, such authority may apply to the petty sessions for an order to remedy it. After summons the justices may make an order directing the well, tank, or cistern to be closed, or the water to be used for certain purposes only, or providing otherwise as shall appear to them to be requisite to prevent the use of the water for drinking purposes. The justices may also cause the water to be analysed at the cost of the authority. The expenses incurred by the authority are to be charged upon the funds applicable to their general expenditure. An appeal to the quarter sessions is given against the order, and the justices, if they dismiss the application, may award costs to the party summoned.

When an order is made for the removal of a sick person to a hospital, under the 29 and 30 Vict., c. 90, section 26, some difficulty has arisen in consequence of that section referring only to a hospital within the district. It is now provided in section 51 of the present Act, that every hospital declared by the Local Government Board to be within a convenient distance of the district of the authority shall be deemed for this purpose to be within their district. Another difficulty existed in consequence of the omission in the same section of the 29 and 30 Vict., c. 90, to state to whom the order of the justice should be directed; that difficulty has been removed by providing that it may be directed to a police or other officer.

By Section 53 the right and power of complaint given by Section 13 of the 23rd and 24th Vict., c. 77, one of the Nuisance Removal Acts, to any inhabitant of any parish or place, in reference to nuisances on private premises in the same parish or place, is extended to nuisances on public premises, and may be exercised by any person aggrieved.

By Section 54, the 26th and 27th Vict., c. 117, sect. 2, which relates to the inspection of articles of food, is extended to milk, and the proceedings against offenders are facilitated by providing that the justice who is empowered to convict the offender need not be the justice who ordered the article to be destroyed.

Section 55 further extends the powers of that Act by enabling entry, inspection, and seizure to be made upon premises where there is reason to believe that unsound food is kept or concealed, the previous statute only applying where the food is openly exposed or deposited, or kept in preparation for sale.

Section 56 provides for the punishment of persons who, on the letting of houses, knowingly make false representations with respect to infectious diseases therein, by rendering such persons liable to imprisonment or a penalty not exceeding £20.

Quite half of the clauses apply equally to both rural and urban districts. These have corresponding numbers, which facilitates reference.

Purification of Rivers.—We understand that the Local Government Board are preparing a Bill on the question of the purification of rivers.

# FROM ABROAD.

## Benzoic Acid in Ammoniacal Cystitis.

In our number of February 7, page 163, we noticed a paper presented to the Académie des Sciences by Prof. Gosselin and Dr. A. Robin on the treatment of ammoniacal urine by benzoic acid. Since then they have published an extended memoir upon the production and effects of ammoniacal urine, in the *Archives Générales* for May and June, in which they go fully into the history of the subject, and detail a great number of experiments which they have performed. In another memoir, in the number of the *Archives* for November, they enter at full length upon the treatment of the cystitis which they have found to be induced by ammoniacal urine.

"In the case of a solution of continuity of the vesico-urethral mucous membrane, the patient is exposed to all the dangers of a general intoxication. It may determine local complications resulting from the immediate action of the urine on the divided tissues, giving to the urinary infiltration quite a character of special gravity. On the other hand, whether a wound of tissue be superadded or not, this condition may be the cause of well-known effects of a different nature from the preceding. There is first the constant irritation of the mucous membrane of the bladder by this urine, whence comes an abundant secretion of mucus, which favours the decomposition of the urea. This irritation, more or less prolonged, may end in a more or less intense cystitis, which in all cases has a remarkable tendency to become chronic. Another result not less important is that the ammoniacal condition favours the formation of ammoniaco-magnesian phosphatic calculi; for, as Prof. Robin has shown that, as the phosphates play an important part in the economy by reason of their property of combining with ammonia—which they fix and saturate,—so, in the various humours and in the urine, they seize the ammonia as it is formed. Unfortunately, the ammoniaco-magnesian phosphate is insoluble."

The problem is to saturate the carbonate of ammonia of the urine without employing substances which may form insoluble salts, or such as are possessed of poisonous qualities. In this way we may be able to prevent, at least in part, the local and general accidents which are due to the absorption of ammoniacal urine and to the contact of this with divided tissues. In any case such neutralisation would serve as a powerful adjuvant to the treatment ordinarily employed in diseases of the urinary organs. Carbonate of ammonia is a very alkaline salt, being almost a base by reason of the facility with which its carbonic acid is displaced, and our object is to select among the acids such of them as are best qualified to meet the object mentioned above. The authors, after passing in review the objections which exist to the employment of the various other acids which have been resorted to for this purpose, come to the conclusion that benzoic acid, formerly recommended by Alexander Ure, is the only one which meets the contingency. This is rapidly transformed into hippuric acid, and exerts no ill effect upon the economy, persons both in health and ill being able to take from two to six grammes per diem without detriment. Hippuric acid, thus formed, increases the acidity of normal urine, and in ammoniacal urine prevents the formation of phosphatic deposits by combining with the ammonia, which without it would have formed with the phosphate of magnesia contained in the urine an insoluble ammoniaco-magnesian phosphate. The hippurates in general, and especially the hippurate of ammonia, are very soluble. Benzoic acid is very slightly soluble in cold water, which constitutes one of the difficulties of its employment; but it may be given in suspension in mucilaginous or syrupy mixtures. A formula is—Benzoic acid, 1 to 3 parts; neutral glycerine, 4 to 6 parts; and mucilaginous mixture, 150 parts. As a general rule, only one gramme (fifteen grains) per diem should be given at first, this quantity being rapidly increased to three or four grammes. To many patients as much as six grammes may be given, providing this quantity be not persisted in for too long a time, as indicated by dryness and a sense of smarting in the pharynx. The production of acidity or neutralisation of the urine does not take place at once, the extreme limits of time which have been observed being from five to nineteen days, the mean period being from seven to eight days. This effect is announced by the diminution of phosphatic deposits, pus, and blood, and by a modification in the odour of the urine, the fetidity of which is gradually lost.

Four well-marked cases are given, and the authors appropriately reprint an interesting case related thirty years since by Alexander Ure, in his paper "On the Treatment of Phosphatic Deposition," published in the *Provincial Medical and Surgical Journal*, February 11, 1843, and "Braithwaite's Retrospect," vol. vii. The following are the conclusions of Prof. Gosselin and M. Robin's memoir:—

"1. The ammoniacal condition entering in part into the production of the accidents which supervene after operations on the urinary organs, it is highly desirable to prevent or diminish it. 2. Benzoic acid and the balsams which contain it, and probably other vegetable productions (as salicine, cinnamic acid, etc.), conduce to this result. 3. The hippuric acid which is produced acts in several ways—(1.) By forming a hippurate of ammonia which is less poisonous than the carbonate. (2.) By retarding the decomposition of the urine, and the consequent production of the carbonate. (3.) By preventing the formation of insoluble phosphatic deposits, which are a cause of cystitis, and may become the point of departure of calculi. 4. The administration of benzoic acid should be recommended for the subjects of ammoniaco-purulent cystitis, and especially those of them who have to undergo operations on the urinary organs."

## Jaborandi as a Diaphoretic and Sialogogue.

M. Albert Robin communicated to the Therapeutical Society (*Gazette Hebdomadaire*, November 20) an account of his investigations into the effects of this drug, in which he has been engaged in Prof. Gubler's ward at the Beaujon. Under its influence the urea is at first diminished in quantity in consequence of the quantity of the urine being diminished; but after some days both these are increased, and the same may be said of the chlorides and the uric acid. This last has not been found either in the sweat or saliva, but the urea has been met with in the proportion of 3·12 grammes per litre. In a case of albuminuria the amount of albumen diminished during the first twenty-four hours from 17·20 grammes to 15·40; but the diminution was not permanent except in one case, in which it continued reduced from 14·40 to 12 grammes. The temperature increases in ten or twenty minutes, rising from 37° to 39° or 39·8°; the pulse also increases (from 96 to 105, for example). During the sweating the temperature falls to 37·7°, 37·6°, or 37·2°, and, when this is terminated, to the original 37°. For the next two days after the administration both pulse and temperature remain lower than the normal rates. When the sweating commences, "a true experimental asystolie" is produced, the tension diminishing notably; but next day the tension is reproduced and becomes sometimes more considerable than in the normal state. The *jaborandi* therefore seems to act on the vaso-motors, diminishing tension by paralysing them and facilitating the passage of the blood through the capillaries of the skin. In several cases in which it was given in minutely divided doses, there was neither sweating nor salivation, an abundant diuresis taking place, so that the urine increased from 750 to 1380 grammes. The effect of *jaborandi* on animals is very marked: guineapigs are seized with salivation, weeping, and diarrhœa, true ecchymoses being found in the intestines, and dogs become instantly salivated, their gastric secretion being also much increased.

M. Gubler observed that he had recommended M. Robin to employ the divided doses, in consequence of his having observed that diuresis occurred the next day or day but one after taking a large dose. He supposed that if the portion of the *jaborandi* which remained in the system after three days proved thus diuretic, this effect might be at once produced by giving small divided doses. A small quantity thus does not suffice for influencing vascular tension, acting only on the kidney. M. Gubler believes that the sweating determined by this drug depends upon the diminution of the tension which it causes, but that a complete equation cannot be established between this diminution of tension and the sweat. Another factor is the secretory irritation of the glands—an irritation acting on the kidney, and inducing diuresis.

At the Biological Society (*Gazette Médicale*, November 21), Dr. Ball also read a note of some experiments that had been made with this substance by himself and Dr. Hardy. After having collected the urine of the preceding twenty-four hours and administered a bath, they gave the patient next morning an infusion of *jaborandi*, formed of four grammes of the leaves and 500 of boiling water. The sweat was retained during four hours by means of a caoutchouc covering with which

enveloped the patient. Some coffee was given in order to prevent vomiting, which often occurs, and the urine passed during the day was carefully preserved. In ten experiments three results were obtained:—1. The quantity of urea excreted in the urine was always diminished. 2. The sweat always contained a certain portion of the urea. 3. On adding together these two quantities the total was always (excepting in one case) inferior to the amount excreted in the urine only the day before. Traces of urea were also found in the saliva, but in too small a quantity for quantitative analysis. As a general rule, the quantity of urine on the day of administration was much diminished, and the proportion of urea was much increased. There were, however, exceptions to this rule. The mean quantity of the diminution of urea excreted after the administration of the *jaborandi*, as compared with that excreted prior to this, was 6·78 grammes. The greatest difference amounted to 19·60 gr., and the least to 0·60 gr. In one exceptional case the quantity of urea found in the urine and sweat exceeded that found in the urine on the day before by 1·70 gr. The mean quantity of urea excreted in the sweat was 1·14 gr., the maximum being 3·10 gr., and the minimum 0·25 gr.

### Treatment of Pertussis.

M. Hervez de Chégoin recommends (*Union Médicale*, November 14) the administration of quinine on the following grounds:—

"When we examine with care the course of this disease we always find that it succeeds to a catarrhal affection of the air-passages, and that it is consequently never a primary disease. We are struck also by the paroxysms which characterise it, and are renewed at irregular intervals, but with a true intermittence. I have been led to form my opinion on the nature of pertussis by observing what takes place in other organs. Whenever any tissue, parenchymatous, membranous, or muscular, becomes the seat of inflammation or of simple congestion, the nervous element which enters into the composition of this tissue participates in its suffering, and continues to suffer, because it is more sensitive, when the primary affection of the entire tissue has disappeared; and as, according to a law appertaining to the nervous system, an intermittent form is almost always assumed, the symptoms are renewed with circumstances that may lead to error as regards this secondary condition. How often do we find in adults that, after the ordinary duration of a bronchitis, the cough which was thought to be lost is renewed at nearly regular hours, no longer accompanied by the catarrhal expectoration, but with a spasmodic condition inducing a secretion quite different from that of the cold? In the same way, after inflammation of the tissue of the uterus, when the material state of the organ has regained its natural conditions, the pains nevertheless persist, but under an intermittent form. The same remark may be applied to all the other organs, and it is at once seen that the antiphlogistic treatment must be followed by another form of medication.

"In applying these conclusions to pertussis, we observe that it is generally after fifteen or twenty days of a catarrhal affection of the upper air-passages that the cough takes on the convulsive character which distinguishes it, and that it recurs in paroxysms. But the intermittence is not regular, because another cause which has its seat in the ventricles of the larynx also gives rise to paroxysms which disturb the regularity of the purely nervous paroxysms. This is the secretion within the larynx itself of a matter of gelatinous aspect, which also induces cough when it is accumulated in a certain quantity, and renders expectoration necessary.

"Consequent on this manner of viewing the disease, the treatment which seems to me rational consists in giving quinine in doses varying with the age of the child, and in applying on each side of the larynx a small blister (*mouche de Milan*), which may be dressed with half a centigramme, or even less, of the sulphate of morphia. These special means do not prevent the employment of gentle aperients and some ipecacuanha lozenges. In the cases which have come under my care, the pertussis has been cured in from twenty-five to thirty days."

Sanitary Regulations at Goole.—The inhabitants of Goole having failed to form a Local Board district, the Government has decided to do so. An inquiry has been opened by Mr. Harrison, C.E., on behalf of the Local Government for this purpose.

## REVIEWS.

*The Journal of the Chemical Society.* J. Van Voorst.

While for obvious reasons it is of importance that everyone who is engaged or interested in scientific investigation should, as far as he is able, endeavour to keep himself *au fait* with the facts relating to the progress of inquiry, the possibility of so doing has been until recently exceptionally difficult, not only on account of the rapid increase of scientific literature at the present day, and to the accumulation of memoirs which are continually presented to the various scientific societies, but also from the fact that some of the most valuable communications, especially those in connexion with chemistry, were only to be found distributed through foreign journals, thus requiring at the hands of the reader both leisure, facility of access, and acquaintance with the language.

Until within the last two years, the *Jahresbericht für Chemie* was the only publication which embodied a concise summary of chemical and physical investigation, and though this work has been much consulted, and has proved of great assistance to chemists, the fact that its information was necessarily a year behindhand, and that it was published only in the German language, has always, with many English and American readers, considerably lessened its value as a work of reference.

The Chemical Society of London, taking the *Jahresbericht* as its model, has determined to publish, in connexion with its own proceedings, an abstract of every paper relating to chemistry, and its applications to physiology and the arts, as soon as such paper has appeared in any scientific periodical, whether home or foreign. By means of an efficient staff of abstractors, and a committee of publication, who are responsible for the accuracy of the abstracted matter, it has succeeded in producing a compendium of chemical information, such as to render its monthly journal unrivalled among the chemical literature of the time. The early pages of the journal are occupied with the communications read before the Society; while the remainder, about eighty pages, is devoted to the abstracts, which average about 130 pages per monthly number. These latter are carefully arranged, according to their subject-matter, under the heads of General and Physical Chemistry, Inorganic, Organic, Physiological, Chemistry of Vegetable Physiology, Mineralogical, Analytical, and Technological Chemistry. By this arrangement future reference is greatly facilitated. The abstracts, though not necessarily intended to be perfect substitutes for the original papers, nevertheless constitute accurate and faithful analyses of the memoirs to which they are related. They are not mere outlines of the authors' communications, giving the barest information in a disjointed and unsatisfying manner; on the contrary, they are thoughtful, carefully condensed *précis*, embodying the whole of the substance of the original without unnecessary details, and placing the subject before the reader in a manner in which it is most likely to be read and appreciated.

The publication of the Chemical Society in its present form meets the expressed requirements of a large section of the scientific world; to many, indeed, it is almost impossible to over-estimate its value. It obviates the tedious necessity of perusing a host of foreign periodicals—a task too often neglected,—while it enables the reader, without any great expenditure of time, to make himself accurately acquainted with the progress of scientific work.

*The Mutual Relations of Druggists and Physicians:* an Address before the Graduating Class of the Massachusetts College of Pharmacy, April 22, 1874. By Charles E. Buckingham, M.D., Professor of Midwifery and Medical Jurisprudence in the Medical Department of Harvard University. David Clapp and Son, Boston, U.S.

The above address is reprinted from the *Boston Medical and Surgical Journal* of May 7, 1874. The main feature to be noticed in it is the strong recommendation which it contains for increased education amongst those who are about to become druggists or pharmaceutists; so that, in the future, the proprietor of every drug store and laboratory may be noted for his scientific acquirements, rather than for his knowledge of fancy goods and patent medicines. This portion of the pamphlet applies with equal force to the chemists and druggists of our own country; the remainder contains many useful hints, and much good advice for our cousins across the

water, which would scarcely be found applicable here, on account of the somewhat different complexion of the business details.

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*The Medical Temperance Journal*, October, 1874. William Tweedie, 337, Strand.

The last quarterly number of the above little journal, which has lately reached us, contains a paper on Health and Education, wherein the sanitary movements of the present day are very ably discussed. The writer passes in review the different Health Acts which Parliament has passed, but expresses an opinion that sufficient attention has never yet been paid to the most fruitful cause of all diseases and excessive mortality—the habit of drinking which is so deeply rooted in the population. Amongst the remainder of the contents is a very interesting report furnished by Dr. E. A. Parkes, M.D., F.R.S., Professor of Military Hygiene in the Army Medical School at Netley, on the good effects, or otherwise, of the issue of a spirit ration to the men during the march to Coomassie in the late Gold Coast campaign. The evidence adduced goes to prove that those men in the force who were teetotalers sustained all the fatigues of the march, and furnished a relatively smaller number of sick than their companions who received the small spirit ration issued. At the same time it must be said that the majority of the opinions collected are in favour of a small issue of rum, given with the evening meal, diluted, after the termination of the day's work.

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# FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, September 25.

Hydrophobia: Dr. Hammond on the Morbid Anatomy of the Disease; his Libel Suit against the "Medical Record"—States "Medical Directory"—American Edition of Ziemssen's "Specielle Pathologie und Therapie"—The United States Army Medical Service—Convention of ex-Confederate Surgeons—Medical Journals in America.

A month or two ago the public prints were agitated with the particulars of the deaths of three or four individuals from hydrophobia, and column after column of type was set with learned and unlearned opinions on its pathology and treatment. Several well-known medical names figured conspicuously in large type in the daily journals, that irrepressible individual—the modern interviewer—having visited them for the purpose of obtaining their sentiments on the spinal cord, nerve-cells, corpuscles, etc.—subjects which, by the time they reach the public eye through the medium of an unscientific reporter, become wonderfully confused and very heterogeneously commingled. It was thought by many in the profession and out of it that some of those whose views were thus quoted were rather self-satisfied at the prominence given them by this temporary notoriety, although it was perhaps unavoidable. The excitement of the hour having subsided with the death and burial of the subjects of the disease, the scientific aspects of the case became matters of interest to the profession at large, and, in a more presentable shape than had hitherto been accorded them, they were introduced and discussed in the various medical and medico-legal societies, of New York especially, in which city and vicinity the cases had occurred and been submitted to post-mortem examination. At a special meeting of the Neurological Society of that city, Dr. Wm. A. Hammond, whose name is associated with numerous interesting investigations into nervous phenomena, referred to the case of a man named McCormick, who had died from the effects of the bite of a dog. In examining the cortical substance of the brain he found the external layer of nerve-cells almost entirely replaced by oil-globules, the rest being filled with a highly refracting granular matter, which proved also to be finely divided oleaginous particles. So in the next stratum of cells, but to a much less marked extent, was there a similar substitution. The other portions of the encephalon, as the corpora striata, thalami optici, and cerebellum, were somewhat injected, but not otherwise transformed. The changes in the medulla oblongata were, in his view, more interesting. The grey matter of which the nuclei of the pneumogastric and hypoglossal nerves are composed was decidedly granular, consisting of oil globules and amyloid corpuscles, with extreme atrophy or almost total obliteration of the cells. The spinal cord presented a similar condition, so far as the grey matter was concerned. He was disposed to regard the symptoms of the disease, such as the delusions and excitement attendant upon it, as referable to the changes of structure which post-mortem examination had exhibited in the various portions of the nervous system.

The views of Dr. Hammond were freely criticised and honestly dissented from by several excellent observers. It was contended, for instance, that the pathological appearances were insufficient and inconclusive; that the very authorities which he had quoted did not confirm him in his deductions; that several previous examinations had been made abroad, in which no satisfactory results had been obtained; that, according to Fleming, whose work on hydrophobia he justly lauded, recent microscopic examinations in similar cases had shown nothing but intense congestion; that the cadaveric lesions noted after rabies resemble (according to Röll) those which result from acute narcotic poisoning, and that it is not at all unlikely that McCormick was labouring under the narcotic influence of atropia; that, according to Trousseau, "the pathological changes found after death are only those dependent on the asphyxia which occurs in the later stages"; and that the view that a healthy dog could produce hydrophobia by a bite inflicted in a moment of temporary anger only—not madness in its full signification—was untenable and not borne out by the language of Fleming, who was quoted by Dr. Hammoud as confirmatory of this view, although he expressly states that "no wound, injury, or bite from a healthy dog will produce the specific disease we term rabies." So it may be safely averred that the pathology of this terrible affection still remains a mystery, in spite of the well-meant efforts of recent Cisatlantic investigators, and that the profession requires more light to enable it to form any decided opinion on the subject than has yet been thrown upon it.

The *New York Medical Record*, in the interests of independent medical journalism, freely criticised, in its issue of August 1, the salient features of the whole controversy from its incipiency in newspaper pseudo-science to its culmination in elaborate discussion in medical periodicals and societies. Some portions of the history of the case naturally excited ridicule, the minutiæ admitting of a construction bordering on the *reductio ad absurdum*. It reflected especially upon the professional sensationalism as exhibited in the publication of the views of medical men in heavy type in the *New York Tribune*, and sympathised with the public and with younger microscopists in their bewilderment at the descriptions of the microscopical examinations published in the *Daily Press*, and the accompanying illustrations, of which it states—"one reminded us of a *Herald* war-map, another was filled with fiends like those of Gustave Doré, while in a third was traced a close resemblance to a representation of superannuated spermatozoa in 'Réflexions sur le Mariage' or a similar work." It animadverted upon Dr. Hammond for having, as it states, appropriated all of interest in McCormick's brain in the post-mortem examination, when there were several other medical gentlemen present who would have been glad to secure a segment of some important part of the nervous system for after examination, he having cut off the pons varolii, medulla oblongata, and a small section of the upper portion of the spinal cord, and placed them in bottles which he had provided for the purpose. The result is a libel suit instituted by Dr. Hammond against the publishers of the *Record*, of which Dr. George F. Shrady is the able and worthy editor. The word "appropriate" seems to be the precise point of annoyance, which the *Record* still insists on defining in its issue of September 15, according to Crabb, as applicable to this case. Dr. Hammond was also greatly chagrined at the opinion of the coroner's jury, entirely composed, by the way, of physicians of marked prominence in New York, that the post-mortem investigations in this case (those made by Dr. Hammond) had no value in determining the pathogeny of the disease. The Doctor did not accept the offer made by the editor of the *Record* to give him the opportunity of a full and free utterance of his views in the columns of that journal, but maintained that it was its duty to retract all the insinuations against him; hence the libel suit. If the case comes to the courts it may offer some points of general interest worthy of detailed reference.

Among the works recently published in this country is a "Medical Register and Directory of the United States,

systematically arranged by States." It is a very useful work for reference, and comprises the names, post-office addresses, educational and professional status, of more than 50,000 physicians, with lists of medical societies, colleges, hospitals, and other medical institutions, besides abstracts of the medical laws of each State, notices of mineral springs, etc. The number of physicians represented in its pages is scarcely an absolutely accurate estimate of the whole number, but must be somewhat of an approximation to it. The work is yet crude and incomplete, giving only an indication of what it may become hereafter; and that, too, in spite of a vast amount of labour expended on it. It is too full of details in many instances, and incomplete or unsatisfactory in the case of the most distinguished members of the profession, although they are said to have been thus curtailed of their deserved proportion of notice from their not supplying the editor with the material for it in time. It is difficult to secure perfect immunity from error in such a work, but the labour in its preparation must have been enormous.

Speaking of immense works, I am reminded that William Wood and Co., of New York, have just issued the first volume of the great "Cyclopædia of the Practice of Medicine," which, fresh from the hands and brains of our German brethren, is to be complete in fifteen large octavo volumes of from 500 to 700 pages each. The work is termed by the publishers "a practical handbook," but the size of the work almost removes it from the category of handbooks or manuals in the strictest sense of the terms. The American publishers have made a special arrangement with the German publisher and editor, and copyrighted the translation. I suppose it will be known as Von Ziemssen's Cyclopædia, he having been its literary accoucheur in Germany, although but few of the articles are written by him personally. The first volume of the series relates to "Acute Infectious Diseases," and includes articles on Typhoid Fever, by Professor Liebermeister; Typhus and Relapsing Fevers and Cholera, by Professor Lebert; the Plague, by Professor Liebermeister; Yellow Fever, by Dr. Hainseh; Dysentery, by Professor Huebner; and Diphtheria, by Dr. Oertel. The well-known names of Schroeder, Wagner, and Rindfleisch are observed among the collaborators, the scope of the work embracing in the fullest extent every department of practical medicine in the 10,000 pages which are suggested as the possible breadth of this magnificent cyclopædia. It is said that arrangements have already been made to publish the work in the French language also.

I referred in my last letter to the condition of the medical service of the United States Army in regard to relative rank especially. The only change that has occurred in this department consists in the fact that promotions are now allowed within it, and that new appointments are being made; but the main question, which involves the consideration of the comparative standing of medical and other officers, will undergo no change until the next session of Congress.

An interesting convention was recently held at Atlanta, Georgia, of ex-Confederate surgeons—those who had opportunities during the late rebellion of collecting many interesting medical and surgical facts from their experience in service on the Southern side. It is to be inferred that they have been stirred to this rather late activity by the magnificent efforts and successes of the Government at Washington in the publication of valuable circulars from the Surgeon-General's office, and in the issue of the large quarto volume of the "Medical and Surgical History of the War of the Rebellion." The war has been over more than nine years, and the delay is not, therefore, quite so favourable to the enterprise as if it had been undertaken at an earlier day, for the freshness and novelty must be, to a certain extent, worn off. Much is to be expected, however, from the personal reminiscences of men whose ability and skill were honourably exhibited on so many fields, and from the judicious preservation of their medical records and statistics.

I had purposed making some allusion to the present status of American journalism, but must defer it to another opportunity. I may, however, state that the *Medical Times and Gazette*, the *Lancet*, and other medical serials of Great Britain have a pleasant reception accorded them on the private tables of physicians and in all the medical libraries and society-rooms, and meet with a very numerous list of readers. The *Obstetrical Journal* is republished by Mr. H. C. Lea, of Philadelphia, a supplement on American obstetrical progress being appended to each number. Gynæcology is making wonderful strides in this country. But of this and other subjects more anon.

## REPORTS OF SOCIETIES.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 10.

WM. WHITE COOPER, F.R.C.S., Vice-President, in the Chair.

### ON THE ELIMINATION OF UREA IN CERTAIN DISEASES.

MR. SAMUEL WEST, B.A. Oxon., read a paper on the above subject. The method employed for estimating the urea was that described in a paper read before the Chemical Society, by Dr. Russell and Mr. West (*Journal Chem. Soc.*, August, 1874). The cases examined are three of pneumonia, four of rheumatic fever, two of Addison's disease, and one of diabetes mellitus. *Pneumonia:* The total volume of the urine was much reduced during the fever, returning to the normal during convalescence. The percentage of urea was always high during the fever, and fell suddenly when the fever terminated. There was no more definite relation to be observed than this very general one between the percentage of urea and the temperature. Where the nervous symptoms were very marked, the percentage, though above the normal, was below that of the other cases. The total urea during the fever was in all these cases below normal, and markedly reduced when compared with the quantity of nitrogen ingested. There were several possible explanations of the fact; the most probable were two, of which the first accounted for the apparent disappearance of nitrogen by its being stored up in the body—(*a*) by retention, in which case there must be a critical discharge during convalescence; or (*b*) by going in some way to form the nerve-tissue produced in the lungs. The second explanation was that nitrogen left the body by the kidneys, but in some other form than urea, and so escaped estimation. In convalescence the total urea at first was reduced, and subsequently increased, rising gradually to the normal. From a comparison of these cases of pneumonia with others quoted in books, it was probable that there were two sets of cases of pneumonia, in one of which the total urea was increased, while in the other it was diminished. *Rheumatic Fever:* As in pneumonia, the total volume of the urine was much reduced. The percentage during the fever was very high; at its termination dropping suddenly, and returning gradually to the normal. Changes in diet produced oscillations in it. The great increase in the total amount of urea mentioned in books was not found to occur in these cases. *Addison's Disease:* The total volume of the urine and the total urea were much reduced. The percentage of urea, however, remained normal, so that the emaciation and loss of strength might be connected with the loss of appetite, and refer rather to diminished tissue-repair than to increased waste of tissue. *Diabetes Mellitus:* The total volume of urine was small for the disease, the percentage of urea was not above normal, and the total urea was much increased. The increase was not due in this case to excessive ingestion of food, but probably to increased metamorphosis of tissue. The sugar might probably be referred to the same source, a conclusion notably supported by Schultze and Riess's experiments on phosphorus poisoning, and by Dr. Sydney Ringer's experiments, in which a direct relation between sugar and urea in diabetes was established, and their dependence upon the nitrogenous elements of the food shown. There were probably as many kinds of diabetes as there were factors in its production, and one of these might be self-digestion by pancreation. *General Conclusions:* The author arrived at the following conclusions:—From the indefinite variations which occurred from day to day in the total volume of the urine and in the total amount of urea, very little information of clinical importance is to be expected. It is to the percentage that we must look for indications of the greatest value. All information which can be derived in disease from the percentage of the total urine can equally well be derived from that of the urina sanguinis; hence the necessity of collecting the total urine of the twenty-four hours is avoided. It is not yet certain that in health a similar relation exists between the percentage of the urina sanguinis and that of the total urine. The percentage of urea during fever—1, is high, and remains fairly constant as long as fever lasts; 2, does not follow the slight variations of temperature; 3, does not vary with the volume of the urine; 4, shows oscillations with changes in diet (as also during convalescence); 5, falls with the termination of the fever. During convalescence—1, a gradual and progressive

fall marks the first period; 2, a gradual and progressive rise marks the second period until a mean of about 1·5 or 2 per cent. is established; 3, there is a fairly definite relation between the specific gravity and the percentage during convalescence. The total urea during fever—1, is much reduced, or, at any rate, not in great excess; 2, varies considerably from day to day, independent of any law we can at present determine; 3, is independent of the diet in great measure; 4, is independent of the temperature (hence total urea is not a measure of fever); 5, these variations depend rather upon the variations in the total volume of urine than upon those in the percentage of urea. These variations were considerable in the different cases quoted. During convalescence the total urea—1, is often much reduced; 2, gives a different average in the two periods, but sometimes that of the first, sometimes that of the second period is higher (perhaps this depends upon the kind of fever from which convalescence is taking place); 3, similar variations, independent in great measure of diet and percentage, and depending upon variations in the total volume of the urine, recur as during fever. Urea does not appear to be the measure of tissue-change, and in some of the cases quoted it was not in itself sufficient to account for the nitrogen ingested in the food. Hence the relations of urea to its sources, the tissues and the food, must be much changed in disease. This apparent loss of urea may be due to its being stored up in the body, so that there should be during convalescence a critical discharge, or to its being eliminated by the kidneys in some other form than urea. The latter conclusion, being in some cases supported by the want of relation between the specific gravity and the percentage, appears more probable.

Dr. Drysdale suggested that the author should explain his process.

The Chairman said that Mr. West had brought his apparatus to the Society, and would explain it after the meeting.

Dr. Dickinson said that the Rev. Dr. Haughton was the first to point out that there was in diabetes a constant ratio between the amount of urea and that of sugar. No doubt the urea was increased in diabetes, but the sugar was present in very various proportions; hence there was no fixed ratio between the total of urea and the total of sugar. An ordinary man, however, must make a certain quantity of urea (about three grains for each stone of his weight). This, which might be called "necessary or vital urea," should be deducted from the total urea excreted in diabetes; and then a generally constant ratio between the remaining urea and the sugar would be observed. The increase of both sugar and urea was due to the breaking up of albumen, probably in the liver.

Mr. West described and demonstrated his method of analysis. It consisted in decomposing urea, in a simple apparatus, by means of a mixture of soda and bromine into carbonic acid and nitrogen; the former being absorbed by the soda, and the latter collected in a graduated tube, showing the amount of urea.

## CLINICAL SOCIETY OF LONDON.

Friday, November 13.

Prescott Hewett, F.R.C.S., President, in the Chair.

### Two Cases of Reflected Irritation.

Mr. R. Barwell said that, believing that all cases of spasmodic and convulsive disease clearly traceable to some local cause were of clinical importance, he had brought these two cases together before the notice of the Society; they had occurred simultaneously in his practice at Charing-cross Hospital. The first was a case of Unilateral Trismus (Traumatic). Edward D., aged fifteen, was admitted under Mr. Barwell's care with a scalp wound, laying bare a large part of the left temporal fascia, and the left side of the occipito-frontalis tendon. In five days suppuration was going on, and there was some phlegmon of that side of the head and face; after three days more the cervical glands were swollen. On the thirteenth day pain was felt on the left side of the jaw; phlegmon had subsided. On the following day the patient was quite unable to open the jaw, the left corner of the mouth and cheek were drawn backwards and upwards, giving that side the trismic expression. The left masseter muscle was very hard and contracted, the right soft and flaccid. The temporal on the left side seemed also contracted, but the wound, etc., prevented perfect verification of this fact. During the rest of July and the first week in August this condition continued. On August 9, the wound being nearly healed, the contraction began to abate; on the 18th he could open his mouth, probably to the full extent, but always to the left side. In the beginning of September he was quite able to open the jaw, though still with deviation to the left. Unilateral trismus did not appear to have been hitherto observed, and Mr. Barwell at first thought closure of the jaw might be due to swollen glands; but examination, as also the sequel of the case, disproved this. It was remarkable that, during sleep, the jaw fell open. Several means were used to test the reality of the symptoms, with the result of proving that they were not feigned.

Dr. Althaus remarked that cases of unilateral trismus were very rare.

Dr. Southey asked for an explanation of the relaxation of the muscles during sleep.

Dr. Moxon inquired whether the affected muscle was swollen.

Mr. Barwell replied that the case was unquestionably one of trismus: the masseter was contracted; the temporal less so, and swollen; and the external pterygoid was probably also affected.

The second case was one of severe Epilepsy cured by Excision of a Neuroma. Edward J., aged sixty, an old soldier, was admitted under Mr. Barwell's care, July 18, 1874, with wound of the radial artery. The man had lost his arm in India on May 7, 1846. Two years afterwards epilepsy set in, and had gradually become worse, especially of late. On examining the stump, a neuroma was found, any pressure on which produced a fit. It was desirable (as the hospital was being painted, etc.) to postpone an operation, but the fits became so frequent and prolonged that at last there was barely a quarter of an hour between them, except during sleep. On August 7 Mr. Barwell cut down and isolated the neuroma; he then forcibly stretched the nerves of the brachial plexus, and removed the growth. The wound healed with little suppuration, and the man was discharged on August 18. He was last seen on October 24. Since the operation he had had no epileptic fit, and was much improved in appearance and intellect. Microscopic examination showed the tumours to be true neuromata.

Mr. Brudenell Carter related a case of spasmodic twitchings of the left side, giving rise to epileptiform convulsions, coming on in a woman after recovery of sight in the eye of the same side. On his recommendation the eye was removed, and from the date of the operation there was marked improvement, and the patient was cured in six months.

Mr. Willett mentioned a case of Mr. Holden's in St. Bartholomew's Hospital which much resembled Mr. Barwell's.

Dr. Ogle recorded an analogous case which occurred in St. George's Hospital; and thought that this would have been a good opportunity to try pressure on the nerves to stop the aura.

Mr. Barwell briefly replied.

### Case of Recovery from Melancholia after Four Years Refusal of Food and Obstinate Silence.

Dr. Buzzard related the case of a gentleman, aged forty, who, after increasing symptoms of mental depression, fell into a profound state of melancholia in June, 1870. He was sent to Dr. Stilwell's Asylum, Moorcroft, where he remained until June last. During his stay he lay in a complete state of inertness, rarely using a muscle voluntarily, except to clench his jaws when he was going to be fed, and to close his eyelids and turn up the globes when efforts were made to examine his eyes. He would frown, too, and groan and grunt inarticulately when anything was said or done to him. For four years he was forcibly fed, dressed, and cared for, and during that time he did not speak. Only liquid and semi-solid food could be given to him, and of this large quantities were administered; but he rejected a considerable portion of each meal. By perseverance, however, in feeding, his life was sustained; but his weight fell from 11 st. 10 lbs. to an average of 7½ st., and on one occasion to less than 7 st. In May last he suddenly woke up, as it were, into social life, spoke, ate, and, although scarcely able to move at first, rapidly regained health, weight, and complete mental soundness, in which condition he now remained. Asked to explain his behaviour, he said that he was under a profound sense of personal degradation. He felt that he was growing into a kind of monster unfit to live or even to be seen; that the birds on the trees were mocking at him, and that he was surrounded by devils. Dr. Buzzard said that the course and mode of termination of the case made it

evident that the lesion was not of a destructive character, but must have been "functional" or "dynamic." He suggested that possibly in such cases, if a little less regard were paid to the comfort of the patients, they might be provoked into throwing off their delusions sooner. It was also worth considering whether means could not be found to bring the influence of strong mental emotion to bear upon persons afflicted in this remarkable way.

Sir William Gull did not think Dr. Buzzard's case one of pure melancholia, and would prefer to call it hypochondriasis. He mentioned a case of hypochondriasis, in which the patient could not move the tongue or the legs, and which was at first mistaken by the medical man for paralysis. Sir William also read extracts from a case of

Hypochondriasis, with Delusions as to Inability to Take Food.

The patient, a clergyman, aged 61, was first seen on June 15, 1869. Up to that time he had been performing his clerical duties and also managing his estate, which was large; but for two years previously his manner had been altered—he had become more reserved, irritable, and desponding. When he first came under observation there was extreme despondency, agitation, and abstracted manner, with a fixed delusion that he was ruined. In the course of a few days he began to refuse food or to answer questions. He also had delusions about his urine, asserting that the ordinary vessel was not large enough to contain all he made, and a horror of going to bed, saying with earnestness that, if his bowels acted in the night, the whole place would be destroyed by the quantity passed. Subsequently the refusal to take food became so determined that he was obliged to be fed with the stomach-pump, and this was done night and day every four hours, and had been continued up to the present time. His diet consisted of turtle-soup, gruel, beef-tea, eggs, and milk, with a liberal allowance of stimulants. Under this treatment he improved at first, and gained flesh; he slept well—on an average five hours. His bowels were torpid, and he required an injection every third day. About a year after the commencement of his attack there was marked sponginess of the gums, which was relieved, however, by the exhibition of lime-juice with his food. Two years and a half after his attack there was distinct emaciation; the patient became restless and anxious, with tympanitic abdomen, offensive breath, and small, quick pulse. This appeared to be due to great accumulation in the colon, which was corrected by the use of the long tube and injections of oil and turpentine. Subsequently the inactivity of the colon was overcome by the addition of olive oil to his food and the occasional exhibition of a drop of croton oil. This obstinate refusal to take food had continued up to the present date. A report made on November 13, 1874, stated that he had been fed by the stomach-pump 8700 times without injury to the fauces. It also stated that "the mind of the patient had considerably improved during the last six months, he being now able to sustain a continued conversation, and, with the exception of his delusions, he was able to talk on all subjects rationally. He appeared to have no bodily ailment; he was looking fresh and healthy, and the breath was sweet."

The President, Dr. Ogle, and Dr. Blandford also spoke.

Dr. Althaus could not agree with Sir William Gull in regard to therapeutics, and thought that these cases might be treated at times with advantage by the continuous current to the cerebrum.

Dr. Buzzard replied that he was disappointed with Sir William Gull's remarks, as they did not aid him in finding a mode of treatment. In this case he had not tried the galvanic current.

Sir William Gull supplemented his previous remarks by saying that he still thought therapeutic remedies of no avail in such cases, but considered that counter-emotion, and anything that will rouse, might be efficacious.

## THE PATHOLOGICAL SOCIETY.

Tuesday, November 17.

Sir William Jenner, Bart., M.D., President, in the Chair.

The report of the Chemical Committee on Mr. Whately's specimen of Renal Calculus, exhibited on October 20 (*Medical Times and Gazette*, October 31, page 510), was read. The calculus consisted of concentric layers of uric acid and phosphate of lime, enclosing a nucleus of the same chemical composition. There was no trace of arsenic to be discovered.

The report of the Committee on Morbid Growths on Dr. Pye-Smith's case of Tubercle of the Lymphatic Glands, brought forward on October 20 (*Medical Times and Gazette*, October 31, page 511), was next read. The specimens examined were found in a condition of nearly universal and complete caseation. The less diseased portions exhibited a structure approaching the normal, invaded, however, by a small-celled growth, the centre of which was cascating, while the circumference was slightly fibrillar. Altogether, the condition appeared to be the result of a secondary inflammation.

Epithelioma of the Œsophagus.

Dr. Whipham exhibited a specimen of Epithelioma of the Œsophagus ulcerating into the Trachea. The patient, a painter, aged sixty-four, presented himself on the day before his death, complaining of pain in the throat, dysphagia, and debility, and especially of regurgitation of his food through the nose. The body was emaciated; the voice was husky. Laryngoscopic examination yielded no satisfactory information. The man was at once admitted, but died suddenly the next day of hæmorrhage by the mouth. Post-mortem it was found that the œsophagus was thickened and ulcerated from the level of the cricoid cartilage two inches downwards. None of the great cervical vessels were ulcerated, and the source of the profuse hæmorrhage could not certainly be discovered. One inch below the cricoid cartilage a large fistulous opening led into the trachea. The lungs were emphysematous; the bronchi and the inferior portions of the lungs were filled with blood. The kidneys were granular and cystic. The case showed how fatal hæmorrhage may occur in cancer of the œsophagus without any of the great vessels being involved. It is, however, an unusual complication. In this instance the vessels in the ulcerated cavity were but small. On microscopical examination the mass presented all the characters of epithelioma.

The President inquired whether there was blood in the lungs, and Dr. Whipham replied in the affirmative.

Ovarian Cyst with Muscular Envelope.

Dr. Graily Hewitt showed a specimen of Ovarian Cyst with Muscular Envelope. A woman of nineteen had a cyst removed by operation from her abdomen; the pedicle was very broad and short. The observation was made soon after the operation that the interior of the cyst-wall was corrugated like the mucous membrane of the urinary bladder; and microscopical examination verified the surmise that the external covering must be muscular. Speculating on the source of the muscular tissue in this situation, the exhibitor referred to the description by various anatomists of muscular fibres in the broad ligament in the neighbourhood of the ovary and peritoneal extremity of the Fallopian tube. The present cyst had evidently been developed at the hilus of the ovary, and had carried with it in its upward growth a muscular envelope from the broad ligament. At the time of removal the cyst possessed a distinctly double wall, of which the outer was probably the broad ligament.

Mr. John Wood said that in a case in which he lately removed a cyst from the abdomen of a woman, the Fallopian tube, greatly enlarged, was found connected with the middle of the tumour. Might not muscular fibres reach the surface of an ovarian cyst in this manner?

Dr. Curnow inquired of Dr. Graily Hewitt if he was aware whether muscular fibres have been found on the surface of simple cystic tumours growing—as they certainly at times do grow—from the Fallopian tube.

Dr. Graily Hewitt said, in reply, that he was not acquainted with the results of the examination of cysts growing either from the ovary or from the broad ligament.

Induration of the Sterno-Mastoid Muscle.

Dr. Frederick Taylor brought forward a case of Induration of the Sterno-mastoid Muscle in an Infant. The subject of the disease was first seen at the age of four weeks, when, in addition to a syphilitic eruption, it presented the condition conventionally known as tumour of the sterno-mastoid. There was an unquestionable history of syphilis in the parents. While improving under mercurial treatment the child died very soon of broncho-pneumonia. Post-mortem a hardened nodular mass could be felt under the skin, occupying the lower half of the muscle, and freely movable subcutaneously. On

dissection, the muscle was found perfectly free from the surrounding tissues. The sternal end chiefly was indurated; and the induration, to the naked eye, presented the characters of muscular tissue only. Microscopically, however, the more dense portions appeared to consist almost entirely of white fibrous tissue; and this element passed upwards beyond the limits of induration, separating and isolating the muscular fibres. There was an abnormal development of fibrous tissue in the clavicular portion also of the muscle. In no situation was there any young cell-growth to be discovered; all was fibrillar. The exhibitor said that among the several explanations offered of the origin of these tumours was that of their development by simple hypertrophy, and that by inflammation. Mr. Thomas Smith had lately considered that they might be due to injuries suffered during birth; other pathologists considered them syphilitic in nature. In the present instance there was certainly syphilis; and the child was born by the breech, with the hands over the head. But neither did the dissection reveal hæmorrhage or adhesions around the muscle, nor did the microscopical examination yield evidence of inflammation. Nothing definite of a positive kind had therefore been made out. It was another question what becomes of these tumours. Observers who declare that they disappear have perhaps not watched them sufficiently long. It was possible that some cases of imperfect development of one side of the neck might have this origin.

Mr. Arnott said that this was, perhaps, the first record published of the histology of the sterno-mastoid tumour. As to its cause, of many cases which he had seen there had been unnatural delivery in one only, and in not one had there been syphilis. Such tumours were not seen, as a rule, for a fortnight after birth, probably because the mother does not usually wash the child before that time.

Mr. Clement Lucas related the case of a child with a tumour in the buccinator muscle, which appeared shortly after birth and disappeared under treatment by mercurial inunction. At the age of six weeks the child presented syphilitic symptoms.

Dr. Taylor remarked that Mr. Thomas Smith mentions one case of sterno-mastoid tumour which was observed immediately after birth.

Dr. Graily Hewitt suggested that the phenomenon of the caput succedaneum might have some bearing on this question.

The President believed that the non-discovery of the tumour until a fortnight after birth was to be explained by the custom of entrusting the dressing of the infant to the nurse.

### Malignant (?) Disease of the Kidney.

Mr. Clement Lucas exhibited a specimen of Malignant Disease of the Kidney from a child of seven years. The patient had been suffering for seven months with pneumonia, debility, and severe diarrhœa in succession, when great pain began in the abdomen, and a tumour was discovered under the right lobe of the liver. After two months the child died with left hemiplegia and coma following convulsions. Post-mortem, the right kidney was discovered to contain two large cysts communicating with its pelvis and containing a fluid with a urinous odour and a deposit of pus cells and phosphates. The walls of the cysts proved on examination to be sarcomatous. The other viscera were not examined. The urine was once found, *intra vitam*, to contain no albumen.

Dr. Murchison inquired as to the state of the ureter. He was inclined to regard the specimen as one of tubercular pyelitis. Probably in all cases of this disease there was thickening of the wall of the pelvis, even at an earlier stage than the fatal one.

Mr. Lucas replied that the ureter was found choked by some detritus, but passed a probe readily.

The President said that the case seemed to him to be scrofulous kidney; the cysts were dilated calices.

Dr. Dickinson was of the same opinion. He suggested that the thickening of the walls in these cases is secondary to the dilatation.

Dr. Goodhart, who had examined the specimen microscopically, said that it did not present a trace of healthy renal structure on the cyst-walls, as he had always found in dilated calices. There was instead a double cell-growth—large cells and smaller cells. When fresh the specimen looked exactly like cancer.

The specimen was referred to the Morbid Growths Committee.

### Double Arch of the Aorta.

Dr. Curnow showed a specimen of a Double Aortic Arch enclosing the Trachea and Œsophagus from a female aged eighty-seven. The vascular circle was formed in front by a left brachio-cephalic trunk, the first part of the left subclavian, and a communicating branch to the posterior aortic arch, joining it about three inches from its summit; and behind by a posterior and larger arch, from which the right carotid and then the right subclavian took origin. The ductus arteriosus joined the right extremity of the communicating vessel, and was impervious. During fœtal life the blood-current must have passed from the arterial duct through the communicating vessel into the descending aorta, whilst after the obliteration of the duct a volume of blood equal to that which was carried into the distal portion of the left subclavian still passed from the first part of the subclavian through the same communication into the aorta. There was no transposition of viscera. Dr. Curnow looked on the specimen as exemplifying a persistently pervious condition of both fourth vascular embryonic arches: the right being posterior to the trachea and œsophagus and forming the main aortic arch, the left being anterior and forming the left brachio-cephalic trunk of the first part of the left subclavian, whilst the left aortic root also persisted as the patent communicating vessel. The analogy of this arrangement to the ordinary reptilian type was pointed out. The practical interest of the specimen was in the absence of any dyspnœa or dysphagia in the case, which went strongly to disprove the possible existence of any difficulty in swallowing being ever due to an abnormal direction of the large vessels—the so-called "dysphagia lusoria."

### Myoma of the Œsophagus.

Dr. Hilton Fagge exhibited a specimen of Myoma of the Œsophagus from the body of a man who had never complained of dysphagia, and died of another disease. The myoma was a growth two inches long and one inch thick, which projected considerably into the lumen of the œsophagus below the level of the bifurcation of the trachea. It was composed of non-striated muscular tissue. While the subject of the tumour had no difficulty in swallowing, he was peculiar in preferring to pick or tear his meat instead of swallowing it in morsels. Dr. Fagge said that a few days previously he had discovered in another subject a cystic tumour just above the cardium. It was as large as a pigeon's egg, and had caused no dysphagia. As for myomata of the œsophagus, they were exceedingly rare. Virchow, however, mentions more than one case. In regard to prolonged dysphagia, Dr. Fagge stated that he once examined an œsophagus after forty years' difficulty of swallowing. The œsophagus was so much contracted at the cardium that it scarcely admitted a pencil.

In reply to Mr. John Wood, Dr. Fagge said that in the present case there was no dilatation of the œsophagus above the tumour.

Dr. Douglas Powell stated that he had seen several cases where tumour, such as mediastinal aneurism, had perforated the œsophagus, and yet no complaint was made of dysphagia.

### Aneurism of the Aorta Rupturing into the Left Auricle.

Dr. Robert King showed a specimen of Aneurism of the Aorta which ruptured into the Left Auricle. The subject was a man who went to bed in his usual weakly health, and died suddenly a quarter of an hour after with cough and symptoms of suffocation. Examination after death showed venous congestion generally, some emphysema of the lungs, a healthy larynx, and an enlarged heart. The left ventricle was dilated. The arch of the aorta, from the commencement to the summit, was occupied by an aneurism, the left sinus of Valsalva being chiefly affected. At one side the sac presented an opening as large as a pencil leading into the left auricle. The exhibitor believed that rupture had occurred at the time of death, and that the patient was asphyxiated by obstruction at the mouths of the pulmonary veins. The abdominal viscera were healthy.

Dr. Cayley said that the condition of the aortic valves seemed more likely to have been the cause of death.

Dr. King replied that the patient had never been known to suffer from heart symptoms. He had, however, a chronic winter-cough, and some time previously had had something like an apoplectic attack.

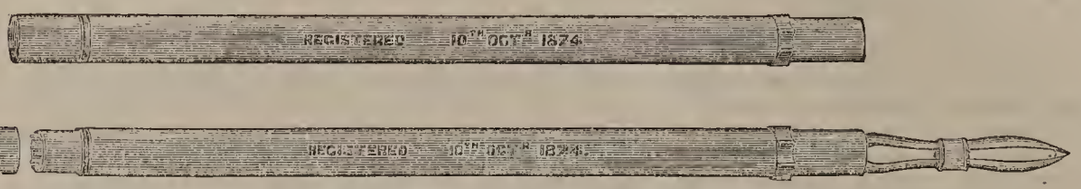
### Parts from a Case of Hernia.

Mr. Gay exhibited Viscera from a Case of Hernia. An inguinal hernia of several years' standing in a young man became at last strangulated, and was returned by operation without opening the sac. The constriction of the tumour

was found to be most intense. In twenty-four hours from his admission the patient died, after passing much blood per anum. Post-mortem the abdominal cavity was discovered to contain a quantity of blood, and hæmorrhage had also taken place between the layers of the mesentery. At intervals the intestine was intensely discoloured with blood through the whole thickness of the wall. No hæmorrhage had occurred during the operation, and the only conceivable source of it was the constricted vessels.

## NEW INVENTIONS.

### THE PEN-VACCINATOR.




Dr. R. Harvey Hilliard has brought to our notice a very simple and ingenious instrument with the above name, intended to facilitate the often troublesome operation of vaccination. Most of the contrivances specially made for this purpose rather overdo their work, and so many operators fall back upon the common bleeding-lancet, and the use of capillary tubes which must be carried in a separate case. The Pen-Vaccinator, which is made by Messrs. Maw, Son, and Thompson, has all the advantages of the special instruments, besides some peculiar to itself, and, so far as we can see, none of their faults. It is a sort of mathematical or drawing pen, made of a hard, clean, incorrodible metal. Between its blades a considerable quantity of lymph—at least enough for a dozen children—is retained by capillarity. When not in use it shuts up into an almost air-tight case, which thus keeps the lymph moist; when to be used it is reversed, like a portable pen-holder, and a short scratch made with it, which lodges its contents at the same time. It may be well for each intended vesicle to make a second short scratch at right-angles to the first, or nearly so, something like a Roman X. No blood flows; whereas if baby plunges it is almost impossible to avoid this with the lancet. The other end of the instrument is a receptacle for vaccine-tubes; and thus this portable contrivance will carry lymph enough for a whole school or station. It looks pretty, and does not alarm either mamma or the little one who is to be operated upon,—no slight recommendation. It is also well fitted to puncture ripened vesicles, when it will charge itself, and may be used at once in arm-to-arm vaccination, or as a preliminary to filling Dr. Husband's tubes.

Stockwell-green.—It has been decided by the Metropolitan Board of Works to give Parliamentary notice of their intention to purchase Stockwell-green, so as to preserve it as an open space for the benefit of the public health.

Case of Habitual and Excessive Constipation.—Dr. Strange relates, in the *American Journal of Med. Science* (October), the case of a labourer, aged twenty-six, who had suffered from costiveness from childhood, being when two years old in the habit of going about two weeks without evacuation. Several years later the interval had extended to six weeks. The longest interval between any fæcal discharges occurred four years since, and was eight months and sixteen days. The process of defæcation when it does occur lasts from two to four days, the man during this time being sick and becoming exhausted. The defæcations look like chewed brown paper. On one occasion he was weighed just before defæcation began, and then as soon as he could get to the scales, and the difference was forty pounds. He does a considerable amount of light work on a farm. When his abdomen is loaded it is hard, and the diaphragm is crowded high into the chest, the colon being immensely distended, and traceable like a sausage. He has been under the care of many physicians, and every imaginable treatment has been tried without any permanent benefit. Latterly he has been treated with the elexir of cinchona, iron, and strychnia and occasional small doses of calomel. Evacuations at short intervals have followed, and he has materially diminished in size, his girth at the umbilicus having diminished from thirty-seven to thirty-five inches, and at the epigastrium from thirty-eight to thirty-five inches.

## OBITUARY.

### EDWARD SMITH, M.D., F.R.S.

Our obituary column of last week contained the name of this well-known member of the profession. He succumbed at the comparatively early age of fifty-five, from double pneumonia. His appearance and build, with his general good health, would seem to have assured him a much longer life. Dr. Smith was chiefly known for his experiments and works on Diet and on Health and Disease as influenced by daily and seasonal changes. The mere mention of his various productions takes up nearly a column of the "Medical Directory," and it is marvellous to observe the variety of subjects on which he wrote, embracing physiology, therapeutics, and hygiene. In consequence of his publication of an article on the food of the lowest-fed classes, he was consulted by the Government on poor-law and prison dietaries. He was some time since appointed Medical Officer of the Poor-law Board. In his professional and public duties Dr. Smith was most indefatigable, and his perseverance and labours entitled him to the highest praise. He certainly raised himself to a high position simply by his courage, his indomitable spirit, and ceaseless activity.

## MEDICAL NEWS.

University of London.—The following are lists of the candidates who have passed the recent Second M.B. Examinations for Honours:—

Medicine.

*First Class.*—Gould, Alfred Pearce (Scholarship and Gold Medal), University College; Duncan, Andrew (Gold Medal), King's College; Eastes, Thomas, Guy's Hospital; Duncan, Peter Thomas, University College.

*Second Class.*—Sturge, William Allen, University College; Rigby, James Arthur, Guy's Hospital; Crocker, Henry Radcliffe, University College.

Obstetric Medicine.

*First Class.*—Gould, Alfred Pearce (Scholarship and Gold Medal), University College; Duncan, Andrew (Gold Medal), King's College; Eastes, Thomas, Guy's Hospital.

*Second Class.*—Rigby, James Arthur, Guy's Hospital; Duncan, Peter Thomas, University College; Sturge, William Allen, University College; Braufoot, Henry Seymour, Guy's Hospital, and Crocker, Henry Radcliffe University College (equal).

*Third Class.*—Nicholson, Arthur, King's College; Harris, Vincent Dormer, St. Bartholomew's Hospital, and Whittle, Edward George, University College (equal).

Forensic Medicine.

*First Class.*—Crocker, Henry Radcliffe (Scholarship and Gold Medal), University College; Gould, Alfred Pearce (Gold Medal), University College; Duncan, Peter Thomas, University College.

*Second Class.*—Duncan, Andrew, King's College; Eastes, Thomas, Guy's Hospital.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 19th inst., viz.:—

Barker, Henry Martyn, Bedford, student of St. Bartholomew's Hospital.
Bate, George, L.S.A., Camelford, Cornwall, of St. Thomas's Hospital.
Bedford, Charles Frederick, L.S.A., Sleaford, Lincolnshire, of St. Thomas's Hospital.
Blackmore, George Henry, Hammersmith, of Guy's Hospital.
Carr, William Ward, M.D. Lond., Lee, Kent, of University College.
Dryland, William, Dulwich, of Guy's Hospital.
Ellerton, John Frederick Heise, Huddersfield, of the Leeds School.
Gravely, William Holmewood, Cowfold, near Horsham, of University College.
Hoffmeister, John Bates, Cowes, Isle of Wight, of St. Bartholomew's Hospital.
Ockenden, Arthur John, Brighton, of Guy's Hospital.
Parkinson, John Rendell, Preston, of the Manchester School.
Phillips, Arthur Owen Henry, Newcastle Emlyn, of St. Thomas's Hospital.
Roberts, Theophilus Lewis, Alfreton, Derbyshire, of the Liverpool School.
Ross, William Abraham, Alderney, of the Westminster Hospital.
Sheehy, William Henry Patmore, Claremont-square, of St. Bartholomew's Hospital.
Verco, Joseph Cooke, Ovington-street, of St. Bartholomew's Hospital.
Waller, William Bevan, L.S.A., Sydenham, of St. Thomas's Hospital.
Wandley, William, Mile End-road, of the Hull and London Hospitals.

Out of the ninety-two candidates examined for the diploma, eighteen, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months; and the same number having

passed in Surgery, will be admitted members of the College when qualified in Medicine. In analysing the various medical qualifications of the candidates, we find that there were fourteen L.S.A., one M.D. Lond., one L.R.C.P. Lond., one L.R.C.P. Edin. and L.S.A., one L.R.C.P. Edin., one M.B. Glasg., one L.K. and Q.C.P. Ire., and one M.D. New York.

*The Fellowship.*—The half-yearly examination for the Fellowship of the Royal College of Surgeons was commenced on Friday last, when thirty-nine candidates offered themselves for the primary, or Anatomical and Physiological portion. Two of these, however, retired before the close of the day, no doubt finding the following questions rather "too stiff" for them; but those gentlemen who have already passed for this high distinction will recognise the desire on the part of the Court of Examiners to maintain the not too high standard required from those seeking this collegiate honour. All four questions were required to be answered:—1. Describe the receptaculum chyli and thoracic duct, including their structure and relations to adjoining textures, and mention the points of entrance into the duct of its chief tributaries. 2. Describe that portion of the under surface of the base of the skull which is bounded in front by a horizontal line drawn through the roots of the pterygoid plates, and behind by a line between the points of the mastoid processes; and then mention, in their order from before backward, the several structures in direct relation with it. 3. Describe the functions of the medulla oblongata (1) as a conductor, (2) as a nerve-centre; and state the facts and arguments upon which your description is based. 4. At what period of embryonic life does the formation of the human kidney begin? Describe the process of its development from the commencement to the completion of the organ, and state when the various changes occur.

The following gentlemen were reported to have acquitted themselves to the satisfaction of their examiners on Tuesday, the 24th inst., and when eligible will be admitted to their pass examination in Surgery, Pathology, etc., viz.:—

Amplett, Edward, student of the Cambridge and Guy's Hospitals.
Anningson, Joseph William, diploma of Membership dated July 21, 1869, of the Manchester School.
Blake, Henry, of St. George's Hospital.
Carrington, Robert Edmund, of Guy's Hospital.
Cripps, William Harrison, July 23, 1872, of St. Bartholomew's Hospital.
Cumming, Hugh Gordon, of St. Bartholomew's Hospital.
Firth, Charles, November 18, 1873, of St. Bartholomew's Hospital.
Lediard, Henry Ambrose, July 27, 1870, of the Edinburgh School.
Makins, George Henry, of St. Thomas's Hospital.
Morgan, John Hammond, July 23, 1872, of St. George's Hospital.
Morgan, John, November 11, 1860, of the Bristol and Guy's Hospitals.
Pye-Smith, Rutherford John, July 26, 1871, of Guy's Hospital.

The following gentlemen passed on the 25th inst., viz.:—

Archer, William Gammon, student of St. Bartholomew's Hospital.
Charles, Thomas Cranstonn, of the Belfast Hospital.
Clarke, Robert Henry, of the Cambridge and St. George's Hospitals.
Davies, Francis Joseph, of University College.
Fredennick, Ernest, of St. Thomas's Hospital.
Moullin, James Alfred Mansell, of St. Thomas's Hospital.
Potter, Henry Percy, of St. Thomas's Hospital.

Of the thirty-nine candidates examined, eighteen were were Members of the College, the dates of whose diplomas ranged from November, 1855, to November, 1874. Of these eleven were rejected. Fourteen had passed the primary examination for Membership, of whom four were rejected; and seven had not passed any examination, five of whom were rejected. It will thus be seen that as many as twenty out of the thirty-nine candidates examined were referred to their anatomical and physiological studies for six months.

The written portion of the pass examination was commenced on Thursday, and will be brought to a close this day (Saturday). The following is a copy of the paper which was submitted to the ten candidates on the 26th inst., viz.:—1. Describe the effects of a simple penetrating wound of the abdomen in one patient, and of a similar injury with a wounded intestine in another; state the indications for a differential diagnosis, and give the treatment of each injury. 2. Mention the diseases of the larynx for which tracheotomy may be required; and state what are the diagnostic symptoms of each. Describe the operation of tracheotomy. 3. In what circumstances is excision of the knee-joint justifiable? State what are the usual appearances presented by the interior of the joint when disorganised; and describe the pathological changes to which destruction of the articular cartilage is due. 4. Enumerate the several causes of mortification; and explain how each cause acts. Describe the various kinds of mortification; their signs, progress, and appropriate treatment.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 19:—

Johnson, Chadd Moore, Lancaster.
Lingard, Alfred, Derby.
Nicholls, Frederick, Cornwall-terrace, Stockwell.
Rawlings, Alfred, Plympton, Devon.
Reynolds, Edward Osmund, Appledore, North Devon.
Treves, Frederick, King Edward-road, South Hackney.
Young, Arthur, Hawkhurst, Kent.

The following gentlemen also on the same day passed their primary professional examination:—

Badcock, George Sainthill, Charing-cross Hospital.
Champneys, Henry Lawrence, Guy's Hospital.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BUDD, WM. A., L.R.C.P. Edin., M.R.C.S. Eng.—Surgeon to the Dispensary, Exeter, *vice* Mr. J. W. Harris, resigned.

DUSTAN, H., M.R.C.S.E.—Resident Medical Officer to the Jersey General Dispensary, *vice* E. G. Archer, M.R.C.S.E., resigned.

STOCKER, CHARLES J., M.R.C.S., L.S.A.—Resident Medical Officer at the East London Hospital for Children and Dispensary for Women, Ratcliff-cross, E., *vice* T. McCann, M.B., deceased.

TORRANCE, GEORGE HENRY, M.B.—Medical Officer for the Bray District of Cookham Union, Berkshire.

TROUSDELL, JOHN ERNEST, L.R.C.P. Edin., L.F.P.&S. Glasg., L.M. Edin. and Glasg.—Parochial Medical Officer for Westray and Papa Westray, Orkney.

WYBRANTS, JOSEPH H., L.R.C.S., L.K.&Q.C.P.I.—Medical Officer to No. 3 District of Frome Union, *vice* Mr. James F. Smith, resigned.

## MILITARY APPOINTMENTS.

WAR OFFICE—MEDICAL DEPARTMENT.—Surgeon George Beatty West and Surgeon-Major Alex. Reid retire upon temporary half-pay; Surgeon-Major William Henry Pollard, from half-pay, to be Surgeon-Major, *vice* James Leitch, M.D., retired upon temporary half-pay; Surgeon Thomas Dodd Milburn resigns his commission.

BREVET.—To be Surgeons-General: Deputy Surgeons-General Duncan McRae and George Saunders, Bengal Army.

## BIRTHS.

BURWOOD.—On November 16, at Strathmore Lodge, Florence-road, Ealing, W., the wife of T. Wesley Burwood, L.K.Q.C.P.I., L.R.C.P. Edin., of a son.

EDGELOW.—On November 17, at 18, Hertford-street, Mayfair, W., the wife of George Edgelow, M.D., of a son.

FRODSHAM.—On November 23, at Denham House, Streatham, the wife of John Mill Frodsham, M.D., A.K.C., of a daughter.

GALLOWAY.—On October 24, at Moradabad, India, the wife of Surgeon W. W. Galloway, 45th (Rattray's Sikhs) N.I., of a daughter, stillborn.

HOOPER.—On November 13, at 67, High-street, Wandsworth, the wife of J. Harward Hooper, M.D., F.R.C.S., prematurely, of a daughter.

HUGHES.—On November 20, at Derwen, Nevin, Carnarvonshire, the wife of J. Evans Hughes, M.R.C.S. Eng., L.S.A., of a son, stillborn.

MILLER.—On November 17, at Blackheath, the wife of J. N. Miller, M.D., of a son.

MORRIS.—On November 19, at Lower Edmonton, the wife of C. J. Morris, M.R.C.S. Eng., L.S.A., of a daughter.

## MARRIAGE.

CLAY—UNWIN.—On November 17, at Christ Church, Surbiton, the Rev. Edward Keatinge Clay, B.A., Vicar of Cartmel, third surviving son of the late Rev. W. Keatinge Clay, B.D., Vicar of Waterbeach, to Kate, eldest daughter of John Raggett Unwin, F.R.C.S., of Fernlea, Surbiton, late of Brixton, Surrey.

## DEATHS.

BARNES, ELIZA, beloved wife of Robert Barnes, M.D., at 31, Grosvenor-street, London, W., on November 20.

BIRD, ANNIE, beloved wife of Peter Hinckes Bird, F.R.C.S., of 1, Norfolk-square, W., and Lytham, Lancashire, on November 23.

HENDLEY, WALTER, youngest son of John Heudley, Surgeon-Major, at Thame, Oxon, on October 30, aged three years and two months.

PEARLESS, CHARLES DURRANT, L.R.C.P., M.R.C.S., of The Vicarage, Sevenoaks, third son of William Pearless, Esq., of The Hermitage, East Grinstead, on November 19, after a few days' illness from diphtheria, aged 32.

WISEMAN, LUCY ANN, widow of the late Alexander Wiseman, F.R.C.S., at Fulham-road, Brompton, on November 20, aged 69.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRISTOL DISPENSARY.—Additional Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 23, Clare-street, Bristol, on or before December 3.

District Infirmary, Ashton-under-Lyne.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, on or before December 14.

National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.—Medical Registrar. Applications, with testimonials, to the Secretary, on or before December 2.

Royal Free Hospital, Gray's-inn-road, W.C.—Senior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before December 9.

St. Luke's Hospital for Lunatics, Old-street, E.C.—Clinical Assistant. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before December 3.

Trinity College, Dublin.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Gainsborough Union.*—Dr. Smallman has resigned the Willingham District; area 21,710; population 3783; salary £70 per annum.

*Grantham Union.*—Mr. Joseph Collingwood has resigned the Burton Coggles District; area 12,174; population 1327; salary £22 per annum.

*Headington Union.*—Mr C. F. Stovin has resigned the Wheatley District; area 14,937; population 3979; salary £70 per annum.

### APPOINTMENTS.

*Barnstaple Union.*—Frcdk. Gardner, M.R.C.S. Eng., L.S.A., to the Seventh District.

*Bedford Union.*—Robert. Gibbs, M.R.C.S. Eng., L.S.A., to the Harrold District.

*Bridgnorth Union.*—Abraham Colles, F.R.C.S. Ire., M.B. Dub., to the Third District.

*Hinckley Union.*—Ralph Fulshaw, M.R.C.S. Eng., L.S.A., to the Earl Shelton District.

*Lexden and Winstree Union.*—Samuel N. Squire, M.R.C.S. Eng., L.S.A., to the Second District.

*Malmesbury Union.*—Wm. R. Tolerton, M.D., M.C. Queen's Univ. Ire., L.A.H. Dub., to the Fourth District.

*Martley Union.*—Benjamin D. Taplin, L.R.C.P. Edin., M.R.C.S. Eng., to the Leigh District.

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The Royal Academy.—Mr. John Marshall, F.R.S., Professor of Anatomy in the Royal Academy, will commence his second course of six lectures at Burlington House, on Thursday, December 3, at 8 o'clock p.m.

The *Journal of Psychological Medicine*, edited for sixteen years by the late Dr. Forbes Winslow, is about to be reproduced by his son, Dr. Lyttleton Forbes Winslow. The first number of this new series will be published by Messrs. Smith, Elder, and Co., in April next.

At the next meeting of the Obstetrical Society, on Wednesday, December 2, in addition to the ordinary business, the following interesting objects will be exhibited:—Cast of antique group found at Cyprus not long since, representing the circumstantials of labour, perhaps B.C. 300; by Mr. Bibby. Portrait of Paul Chamberlin, M.D., dated 1658; presented by Mr. Taylor, of Birmingham. The President of the Medical and Chirurgical Society will also courteously allow Chamberlin's original instruments to be shown. Mr. Donald Napier will lend for the occasion two rare works from his valuable collection—one an illustrated Bible, date 1587, containing a representation of the lying-in chamber; and the other "Ye Happy Delivery of Women," by Guillemeau, 1612, black-letter English.

The Coroner for Central Middlesex.—A number of professional and other supporters of Dr. Hardwicke, who have been active in promoting his election to the office of Coroner to Central Middlesex, have invited him to a complimentary dinner, to be held on December 10, under the presidency of Dr. Richardson. Messrs. May and Thomas are the honorary secretaries to the dinner committee; and Mr. James Beal, of 20, Regent-street, is honorary treasurer.

Chloral in Sea-sickness.—M. Giraldès, who has had very frequently to cross the Channel, and always has suffered from sea-sickness whenever the sea has been at all rough, states that some recent trials he has made of chloral have proved perfectly successful in preventing this horrid malady, even when the sea has been most tempestuous, and all his fellow-travellers have been suffering in consequence. He remains on deck sitting quietly, and on one occasion he slept the whole passage during a furious sea. The formula he has found most useful consists of chloral three grammes (forty-five grains), distilled water, currant syrup, of each sixty grammes, and two drops of essence of mint. Of this he took one half immediately on coming on board, and arrived at Dover without any suffering. On the return voyage he took the rest with like effect.—*Union Méd.*, November 19.

Scarlet Fever in Cheshire.—Weaverham, a township of Cheshire, has been visited with a serious outbreak of scarlet fever. In a population of 1722 persons there have been 165 cases and 29 deaths. Other neighbouring districts have also been affected with the epidemic.

The Vienna General Hospital.—This contains 100 wards (59 for men and 41 for women), with 2000 beds, which are thus distributed:—Medical cases, 687 (407 men and 280 women) beds; surgical, 519 (314 men and 205 women); diseases of the eye, 161 (87 men and 76 women); diseases of the ear, 19 (11 men and 8 women); venereal diseases, 321 (222 men and 99 women); cutaneous diseases, 138 (89 men and 49 women); reserved for variolous diseases, 26 (14 men and 12 women); reserved for cholera, 18 (10 men and 8 women); psychiatric cases, 60 (39 men and 21 women); paying patients, 31 (17 men and 14 women); reserved for students, 20—total, 2000 (1228 men and 772 women). The different buildings in which the wards are situated are divided by large yards, ornamented with flowers, bushes, trees, and fountains. This is necessary, as the hospital is situated in a densely built part of the city. During the summer of 1873 there lectured in this hospital 20 Professors, 25 Privat-docenten, and 16 Assistants. There are also three other public hospitals—the Wiedenkrankenhaus, with 600 beds; the Rudolf-Stiftung, with 800; and a Children's Hospital.—*Boston Journal*, September 17.

Case of Transfusion.—M. Blondeau related to the Société de l'Observation the case of a lady who, having had several miscarriages, which were always attended with serious hæmorrhage, was again threatened in the midway of her pregnancy with a premature delivery—the child having ceased to move. She then became the subject of an abundant epistaxis, which recurred in spite of all means employed, so that she became reduced to an alarming condition, with dilated pupils, a pulse at 140, and complete insensibility, death seeming imminent. Transfusion was resorted to, sixty-five grammes of non-defibrinated blood being thrown in by means of Colin's apparatus. No sooner had this been done than her pupils contracted, the pulse was reduced to 100, and the heat and consciousness were restored. The epistaxis did not recur, and about twenty hours after its first appearance abortion took place without hæmorrhage. The placenta could not be extracted until six days after, during which time she felt well, without fever, suffering, or hæmorrhage. Puerperal fever then set in, and she speedily died. As far as the transfusion was concerned it was completely successful.—*Gaz. Hebdom.*, November 20.

Uncipressure in Hæmorrhage of the Palm and Hand.—Under this title, Prof. Verneuil, at a recent meeting of the Société de Chirurgie, gave an account of a plan of treatment recommended by Prof. Vanzetti, of Padua. In place of the difficult operation of cutting down in search of the ends of the bleeding vessel, he thrusts two or more hooks into the depth of the wound, and drawing the soft parts so seized outwards, keeps them in a state of tension for twenty-four or forty-eight hours, or longer, by means of a cord which is attached at one end to the hook and at the other to a splint or some fixed object. The position of the hooks must be varied until the cessation of the hæmorrhage shows that the vessel is included amongst the soft parts seized. One great advantage of this measure is, that it can be executed by even inexperienced surgeons, and without the aid of assistants. In the absence of hooks, a hair-pin, table-fork, or other curved metallic body may be used. Prof. Vanzetti has only employed it in three cases, but in these the plan was quite successful. Prof. Verneuil, commenting on the communication, observed that the arrest of bleeding is effected in the same way as it is when we seize a vessel by a tenaculum, and that the securing the necessary and permanent tension would often be a matter of difficulty. He believes that this measure may be exceptionally and provisionally useful, but still thinks that ligature of the two ends of the vessel is the mode of treatment of all others to be followed.—*Gaz. des Hôp.*, November 17 and 19.

Opium-eating in Rajpootana.—In the Rajpootana Dispensary, Vaccination, Gaol, and Sanitary Report for 1872-73 Surgeon-Major J. W. Moore says:—"In the report for 1871 details were given of an inquiry as to the number of persons using opium to the general population. During 1870 for six months a record was kept at twenty dispensaries of the number of persons attending who used opium, the returns showing a percentage of 6·73 on a total of 38,644 persons, while the percentage from different institutions only varied between 6 and 8.

I then remarked that 'the results of the inquiry are so extraordinary as showing so low a proportion of opium-eaters, that if they were not so uniform I should conclude many, from some reason or other, have not confessed to the practice. And yet, as far as I am aware, there is no shame or odium felt on, or attaching to, the subject of opium-eating. People take their opium, or rather their "umal pawnee," very much as we might drink a glass of wine. And they often take it when meeting together, in addition to the customary daily draught, just as Europeans might celebrate with wine the assemblage of friends. Being thus disappointed in the results of my inquiry as hitherto made, I now contemplate, instead of returns from so many institutions, limiting a new inquiry to a few selected dispensaries.' This measure has been carried into effect, during seven months at some institutions, during six months at others; and I am assured that great care has been taken in inquiring from each person attending the dispensary as to opium-eating or opium-smoking, and in recording the same. From this, and from the inquiry instituted during the previous year, it would appear that the percentage of people to population using opium in Rajpootana is not so great as I, in common with most Europeans, had imagined. From personal questioning of those attending some of the dispensaries, my impression now is that the percentage of opium-eaters is not in reality much greater than as shown in the return—at least among the classes of people most frequenting the dispensaries. From observation and inquiry I am, however, of opinion that in the upper ranks of society the habit would be found comparatively more prevalent. It will be observed that while the ratio of women indulging in opium sinks to the small figure of 10·74 per cent. on total consumers, and to 1·22 on total population—*i.e.*, number of patients,—the ratio of children attains the high figure of 25·94 on total consumers, and 2·94 on total population. The proportion of children under twelve attending the dispensaries is about 20 per cent. on total of patients, giving to this class 7327 of the total patients, which again gives the high ratio of upwards of 15 per cent. of all children dosed by opium. And if the inquiry were made with reference to younger children, to say two years of age, I believe the proportion would be at least doubled. Native women in this country have not the opportunity, as mothers in Europe enjoy, of giving their children opium under the guise of 'soothing syrups' or 'elixirs'; they therefore quiet the fractious or sick child with a little watery solution of the drug, or with the 'umal pawnee' prepared for the father. And doubtless, if the truth were known, not a few children die under such treatment. The almost total absence of the practice of smoking opium is also shown, the percentage of those smoking the drug to those using it in other ways being the low figure of 0·31. When narcotics are added to the inevitable 'hubble bubble,' bhang is the material nearly always employed."

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Joseph A., York.*—*Medico-Chirurgical Transactions*, vol. xxxii.

*H. M., University College.*—Mr. Marshall succeeded the late Mr. Partridge as Professor of Anatomy to the Royal Academy; on application to him you will no doubt receive permission to attend his lectures.

*An Old Subscriber, Manchester.*—You will find the interesting necrological notice of Dr. Antony Louis Patrick da Silva Mansio in vol. xviii., page 136 *et seq.*, of the *Medical Times.*

*M.D., Netley.*—William Cheselden was born at Sowerby, Leicestershire. He studied under Cowper, the celebrated anatomist, in whose house he resided. He was buried in Chelsea Hospital, April 19, 1752.

*Mr. Mason.*—The celebrated Dr. Shebbeare was condemned to stand in the pillory at Charing-cross for publishing "An Eighth Letter to the People of England."

*W. H., Finchley.*—Pliny said, "Thousands of people live without medical practitioners, yet not without medicine."

*D. L. C.*—*Dublin Journal of Medical Science*, July, 1874.

*Theodore.*—Dr. Redwood presided at the preliminary meeting of the public analysts of the country held in London on August 7 last.

*A Naval Surgeon.*—June 9, 1874.

*B. C. A.*—Statistics show that during the ten years 1863-72 the aggregate of the yearly totals of criminal lunatics under care in the various county and other asylums in England and Wales, with the exception of Broadmoor, was 5937.

*Students.*—Mr. Joseph Warner delivered the anatomical lectures at St. Thomas's Hospital in 1741. He is said to have inherited the identical ring spoken of in history as the one given by Queen Elizabeth to the Earl of Essex.

*George Henry.*—Dr. P. Martyn has adduced several observations to show that the thyroid body exerts an important influence on the pitch of the notes, by giving a certain firmness, rigidity, and tension to the larynx. See *Proceedings of the Royal Society*, vol. viii., page 315.

*An Old Member.*—Mr. Charles Norris Wilde, of College-hill, is the legal adviser of the Royal College of Surgeons. He is a grandson of Mr. William Norris, who was *Master* of the College in 1816, and *President* in 1824. We believe he practised in the Old Jewry. The College only possesses two articles of plate—viz., a large and very handsome silver cup and cover presented by the celebrated Ranby, Sergeant-Surgeon to George II., on the Corporation separating from the Barbers' Company in the year 1745, when the latter had the lion's share of the plunder, retaining a fine collection of massive plate of all kinds, and the valuable painting by Holbein of Henry VIII. granting them the charter. The other piece of plate is the silver tankard of John Hunter, presented a few years ago by Captain Sir Everard Home, of the Royal Navy.

*Dr. Williams, Swansea.*—It was the celebrated Dean Swift who in his declining day wrote of that accomplished Court physician, Dr. Arbuthnot—

> "Removed from kind Arbuthnot's aid,
> Who knows his art, but not his trade;
> Preferring his regard to me
> Before his credit or his fee."

*M. H., St. Bartholomew's.*—Thomas Wharton, the celebrated anatomist, who flourished in the latter half of the seventeenth century, was the discoverer of the duct of the submaxillary gland. He was also the author of the first complete treatise on the glands—"Adenographia sive Glandularum totius Corporis Descriptio," containing excellent descriptions of the glands, placenta, and ovary. This answer applies also to our correspondent *Ranula, of Guy's Hospital.*

*E. R., Clapham.*—The following is, we believe, the correct version of the story. When the great Duke of Marlborough was hesitating whether he should take a prescription recommended by his celebrated Duchess, "I will be hanged," said her Grace, "if it does not cure you!" Sir Samuel Garth, who was present, and to whom the vixen character of the lady was well known, instantly exclaimed, "Take it, then, your Grace, by all means; it is sure to do good one way or the other."

*A Candidate.*—The list of those gentlemen passing the final examination for the Fellowship cannot be published the same day, as it has to be submitted to the Council for confirmation.

*Aqua Rosa, Sidmouth, Devon.*—"It is a peculiar idiosyncrasy," the celebrated Evelyn says, in his "Diary and Correspondence," vol. ii., page 47, "that on one occasion Lord Stafford rose from table in some disorder because there were roses stuck about the fruit when the dessert was set on. Sir Kenelm Digby said that only laying a rose upon the cheek of Lady Selenger when she was asleep, it raised a blister;" this was apparently too much for old Evelyn, for he concludes—"but Sir Kenelm was a *teller of strange stories.*"

*A Tutor.*—The next examination in Arts, etc., for the diplomas of Fellowship and Membership of the College of Surgeons will take place in December.

*Claudius.*—William Battie died of a paralytic stroke on June 13, 1776. The poem referred to is entitled "The Battiad," in which Battie is thus described.

> "First Battos came, deep read in worldly art,
> Whose tongue ne'er knew the secrets of his heart,
> In mischief mighty, tho' but mean of size,
> And, like the tempter, ever in disguise.
> See him with aspect grave and gentle tread
> By slow degrees approach the sickly bed;
> Then at his club, behold him altered soon,—
> The solemn doctor turns a low buffoon."

*A Medical Practitioner, R. F. H.*—It is undoubtedly the duty of a coroner to hold an inquest when a child has died "under suspicious circumstances." The case related by our correspondent was one, we think, which called for inquiry. It would be well, in the interests of justice, that our correspondent should authorise us to publish the full particulars of the case, verified by his signature. Anonymous communications as to matters of fact rarely attract that attention which they might if properly authenticated.

*M. P. I.*—Dr. William Charles Wells was born at Charlestown, in South Carolina, in the spring of 1757. He received his education at the Grammar School of Dumfries, in Scotland, and was thence sent to the University of Edinburgh. He settled in London in 1785; he was elected Physician to the Finsbury Dispensary in 1790; in 1793 a Member of the Royal Society; and five years after, Assistant-Physician to, and in 1800 one of the Physicians to, St. Thomas's Hospital. He died on September 18, 1817.

*A Young Member, Clapham.*—The distinguished visitor at the pass examination at the College of Surgeons was Dr. Botkine, Physician to her Majesty the Empress of Russia, and Professor of Medicine in the University of St. Petersburg.

*Mr Cooper.*—We only know of two busts of the late Sir Astley Cooper. One is in the Hall of the Royal College of Surgeons, commenced by Sir Francis Chantry, and finished by his able assistant Mr. Henry Weekes, now one of our "R.A.'s." The other is in Guy's Hospital, and was executed by Mr. Towne, with the following inscription:—"Astley Paston Cooper, alumni grati hoc marmor posuêre, 1841."

THE MARKET VALUE OF CINCHONA BARK.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you kindly inform me which is the most valuable variety of cinchona bark, and its average price in the London market? Also whether an addition of 50,000 acres to the present land under cinchona cultivation would materially affect the present price of quinine?

Sindoola, Ceylon, October 20. I am, &c., CINCHONA.

COMMUNICATIONS have been received from—

Dr. T. HENRY GREEN, London; Dr. SPARKS, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; OUR AMERICAN CORRESPONDENT; Mr. C. ORTON, Newcastle-under-Lyme; Dr. YELD, Sunderland; CINCHONA, Ceylon; Dr. KEBBELL, Brighton; OUR PARIS CORRESPONDENT; THE REGISTRAR OF THE UNIVERSITY OF LONDON; THE REGISTRAR-GENERAL, Edinburgh; Dr. LEADAM, London; Mr. F. W. LOWNDES, Liverpool; Mr. G. W. BRADBURY, Frome; Dr. C. HANDFIELD JONES, London; Dr. R. LIVEING, London; Mr. W. D. NAPIER, London; Dr. DOWSE, London; Dr. VEITCH, Middlesborough; Mr. J. CHATTO, London.

BOOKS AND PAMPHLETS RECEIVED—

Studien über die Frauen, von Dr. E. Reich—Quarterly Return of the Births, Deaths, and Marriages in Scotland—De Chaumont on the Pecuniary Value of the Emoluments and Pensions of Army Medical Officers—Latimer on the Necessity of Perfect and Prolonged Isolation for Stamping-out Contagious and Infectious Diseases—The Million of the Rail, by G. W. Jones—Griffiths on Chemistry in its Relation to Therapeutics—Bolivia: extracts from a work written by Avelino Aramayo.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Nordiskt Medicinskt Arkiv—Students' Journal and Hospital Gazette.

## APPOINTMENTS FOR THE WEEK.

*November* 28. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

30. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. J. Astley Bloxam—1. A Living Specimen of Spontaneous Congenital Dislocation of the Patella; 2. A Living Specimen from whom a Fibro-Cystic Growth and portion of Styloid Process has been removed. Mr. Richard Davy, "On Resection of the Knee-Joint in Young Subjects."

*December* 1. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8 p.m. Mr. Butlin—1. Chondroma of Lachrymal Gland; 2. Osteoma of Superior Maxilla. Dr. Dickinson—Obscure Abdominal Tumour. Dr. Cayley—Round-celled Sarcoma of the Cerebral Pia Mater. Mr. Hulke—Popliteal Aneurism Cured by Pressure, associated with Aortic Aneurism. Mr. W. Adams—Parts after Resection of the Hip and Elbow-Joints. Dr. Dowse—1. Cardiac Aneurism; 2. Aneurism of Aorta. Dr. Ralfe—Tattooing in Colours. Mr. Godlee—Rupture of the Trachea.

2. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

OBSTETRICAL SOCIETY, 8 p.m. Discussion on Dr. Gervis's paper "On Retroversion of the Gravid Uterus." Dr. Hoggan, "On the Dysmenorrhœal Membrane" (illustrated). Dr. Bathurst Woodman, "On the Treatment of Mammary Abscess by Rest." Dr. Madge, "On a Case of Labour Complicated by Pelvic Tumour and by Convulsions." Mr. Ashburton Thompson, "On Zinc Phosphate in Cases of Amenorrhœa." And other Communications.

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Dr. C. T. Hudson, "On some Male Rotifers."

3. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

HARVEIAN SOCIETY (Special Meeting of Council, 7¼ p.m.), 8 p.m. Mr. J. R. Lane (the President), "On the Modern Treatment of Syphilis."

4. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, November* 21.

### BIRTHS.

Births of Boys, 1231; Girls, 1188; Total, 2419.
Average of 10 corresponding years 1864-73, 2140·5.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 898 | 897 | 1795 |
| Average of the ten years 1864-73 | 787·1 | 772·0 | 1559·1 |
| Average corrected to increased population | ... | ... | 1715 |
| Deaths of people aged 80 and upwards | ... | ... | 73 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 2 | 14 | 5 | 10 | ... | 5 | 1 | 4 |
| North ... ... | 751729 | ... | 2 | 27 | ... | 10 | 3 | 7 | ... | 2 |
| Central ... | 334363 | ... | ... | 13 | ... | 1 | 1 | ... | 1 | ... |
| East ... ... | 639111 | ... | 6 | 44 | ... | 5 | 1 | 4 | 1 | 5 |
| South ... ... | 967692 | ... | 7 | 26 | 11 | 11 | 2 | 10 | 2 | 10 |
| Total ... ... | 3254260 | ... | 17 | 124 | 16 | 37 | 7 | 26 | 5 | 21 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·681 in. |
| Mean temperature | 44·1° |
| Highest point of thermometer | 54·8° |
| Lowest point of thermometer | 31·2° |
| Mean dew-point temperature | 40·0° |
| General direction of wind | W.S.W. & N.W. |
| Whole amount of rain in the week | 0·44 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 21, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Nov. 21. | Deaths Registered during the week ending Nov. 21. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2469 | 1795 | 54·8 | 31·2 | 44·1 | 6·73 | 0·44 | 1·12 |
| Portsmouth ... | 120436 | 26·8 | 73 | 47 | ... | ... | ... | ... | 0·33 | 0·84 |
| Norwich ... ... | 82257 | 11·0 | 63 | 40 | 53·5 | 33·0 | 42·3 | 5·73 | 0·66 | 1·68 |
| Bristol ... ... | 192889 | 43·3 | 161 | 79 | 54·9 | 31·1 | 45·8 | 7·66 | 0·28 | 0·71 |
| Wolverhampton ... | 70896 | 20·9 | 57 | 34 | 55·0 | 31·3 | 44·2 | 6·78 | 0·96 | 2·44 |
| Birmingham ... | 360892 | 43·0 | 328 | 204 | 57·0 | 33·0 | 45·1 | 7·28 | 0·81 | 2·06 |
| Leicester ... ... | 106202 | 33·2 | 77 | 44 | 55·8 | 30·2 | 43·8 | 6·55 | 0·55 | 1·40 |
| Nottingham ... | 90894 | 45·5 | 66 | 55 | 56·6 | 29·3 | 44·9 | 7·17 | 0·76 | 1·93 |
| Liverpool ... ... | 510640 | 98·0 | 365 | 362 | 53·6 | 27·6 | 44·7 | 7·06 | 1·35 | 3·43 |
| Manchester ... | 355339 | 82·8 | 256 | 202 | 54·5 | 29·0 | 44·3 | 6·84 | 2·33 | 5·92 |
| Salford ... ... | 133068 | 25·7 | 108 | 82 | 54·5 | 28·1 | 44·7 | 7·06 | 2·33 | 5·92 |
| Oldham ... ... | 86281 | 18·5 | 65 | 41 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 115 | 111 | 54·4 | 32·6 | 45·1 | 7·28 | 0·54 | 1·37 |
| Leeds ... ... | 278798 | 12·9 | 274 | 146 | 55·0 | 32·0 | 44·9 | 7·17 | 0·58 | 1·47 |
| Sheffield ... ... | 261029 | 13·3 | 217 | 155 | 55·0 | 29·0 | 44·4 | 6·89 | 0·66 | 1·68 |
| Hull ... ... ... | 130996 | 36·0 | 104 | 84 | 54·0 | 26·0 | 41·1 | 5·06 | 1·10 | 2·79 |
| Sunderland ... | 104378 | 31·6 | 68 | 50 | 54·0 | 31·0 | 44·3 | 6·84 | 0·84 | 2·13 |
| Newcastle-on-Tyne | 135437 | 25·2 | 107 | 77 | 50·0 | 32·0 | 41·2 | 5·11 | 0·78 | 1·98 |
| Edinburgh ... ... | 211691 | 47·8 | 133 | 108 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 385 | 349 | 53·3 | 34·3 | 42·9 | 6·06 | 0·80 | 2·03 |
| Dublin ... ... | 314666 | 31·3 | 164 | 147 | 55·5 | 31·0 | 45·9 | 7·72 | 0·63 | 1·60 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5653 | 4212 | 57·0 | 26·0 | 44·1 | 6·73 | 0·88 | 2·24 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·68 in. The highest was 29·98 in. at the beginning of the week, and the lowest 29·37 in. on Monday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## COMMENTARIES ON DISEASE IN CHILDREN.

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### Lecture VIII.—Acute Catarrhal Pneumonia.

(*Continued from page* 545.)

When catarrhal pneumonia ends favourably, improvement is gradual, and there is no marked crisis such as we see in croupous inflammation of the lung. In the croupous form of pneumonia the general symptoms improve before the local, and a sudden fall in the temperature is the earliest sign of approaching convalescence. In catarrhal pneumonia, on the contrary, the local symptoms are the first to show signs of amendment; the breathing becomes less hurried, the cough less harassing, the superficial veins less prominent, the pulse fuller, and the expression more placid, while all the time the pyrexia continues, and it may be many days before the evening temperature sinks to the natural level of health. The physical signs also improve, but often very slowly, and in cases where the disease has run a very subacute course, weeks, or even months, may elapse before the consolidation is completely removed. It is this form of pneumonia which is so especially apt to leave behind it caseous deposits, which, after remaining inactive for a variable time, may begin to soften, and lead to ulcerative destruction of the pulmonary tissue (pulmonary phthisis). The following case illustrates the very gradual improvement which takes place when the disease terminates favourably:—

George C., aged six years, was admitted into the East London Children's Hospital on April 21. Two years before he had had an attack of measles, and for twelve months had been suffering from cough following an attack of pertussis. He had long ceased to whoop, but for a week before admission had been troubled with sickness after his fits of coughing. For four days he had seemed very ill, and his breathing had been difficult. When he came into the hospital the dyspnœa was so distressing that he could not lie down in bed. On examination the chest was found to be very much retracted at each base, showing that the child had been subject to attacks of bronchitis, which had produced some permanent collapse at the bases of his lungs. Superiorly, the chest was rather expanded, and the upper part of the sternum projected forwards. His breathing was very laborious, his face livid, and his nares acted widely. At each inspiration there was much recession of the lower part of the chest. The boy sweated profusely, especially about the head, and the cough occurred in paroxysms like those of whooping-cough, during which his face became much congested. The paroxysm terminated in a slight whoop, but there was no vomiting. On examination of the chest, dulness was found at each base behind, rather pyramidal in form, and here the breathing was bronchial, with a large dry crepitation. Elsewhere about the chest the percussion-note was extra-resonant, and bronchitic râles were heard. On the evening of admission the boy's temperature was 103·4°. On the following evening, however, it was no more than 101·8°, and for a week the temperature alternated between 101° in the morning and 102° or higher at night. His pulse during this time was 130 to 150, and his respirations 40 to 60. During the first week the physical signs and the general symptoms underwent little alteration.

On April 28 the lividity was noticed to have disappeared, but the respiration remained very laborious, and at each breath there was much recession of the lower parts of the chest-walls. Still, the child perspired much less profusely, and his condition was evidently improved. The dulness remained at each base behind, wtih slightly increased resonance of the voice, but with little augmentation of the vocal vibration. The crepitation had become more bubbling in character, and was heard over the lower half of each side posteriorly and to a less extent in front. 9 a.m.: Temperature 100·6°; pulse 130; respirations 48. 6 p.m.: Temperature 104·6°.

On May 5 the boy was looking very much better. His respirations had diminished in frequency, but still became very hurried after a fit of coughing. There was still dulness at each base behind, although less marked than before. A fine bubbling rhonchus was heard generally over each back, and this over the area of dulness was drier and more crackling in character. Temperature: 9 a.m., 100°; 6 p.m., 102·4°.

On May 8 the physical signs remained much the same, but the general symptoms had greatly improved. The boy could lie down comfortably in bed; his appetite was good; he looked very much better, but still coughed a great deal in paroxysms like pertussis, and sometimes whooped faintly. His temperature still remained elevated. 9 a.m.: Temperature 100·8°; pulse 118; respirations 48. On the previous evening the temperature had been 101·6°.

By May 12 the cough had become much less frequent, although it still occurred in violent paroxysms. There was still some amount of dulness posteriorly, but the rhonchus had very much diminished, and was now limited to a crackling sound heard towards the end of inspiration, and to a more or less general sibilant wheeze. The temperature still continued higher than natural, being over 100° every evening, and rather lower in the morning; pulse about 120; respirations about 40.

On May 18 the boy left the hospital. His temperature was still about the same—*i.e.*, a fraction of a degree over 100° both morning and evening, although sometimes for a few hours it would fall to 99°. His breathing was, however, slower (34), and his general health had very greatly improved. There was still deficient resonance at the left base behind. This was especially marked at one spot near the spinal column, where the respiration was very metallic and blowing, and the vocal resonance bronchophonic. No rhonchus was heard in this spot, but immediately around it a metallic crackling rhonchus occupied the end of inspiration. The percussion-note over the right back and the chest generally was hyper-resonant.

In this boy—an old bronchitic subject—the lungs generally were the seat of emphysema, but at the bases was a certain amount of permanent collapse, the result of frequent and severe attacks of pulmonary catarrh. This condition of the lungs was partly the cause of the high rate of breathing which persisted after the symptoms generally had so much improved, for this lesion is always accompanied by more frequent respirations, and also by a more laboured manner of breathing than is natural to a healthy child. Catarrhal pneumonia, supervening upon such a condition of lung, is very apt to run a subacute course; and in this case the improvement in the symptoms was very gradual, and little alteration in the physical signs was noted from day to day. When the boy left the hospital there was still some unabsorbed consolidation at the left back, and the temperature had not returned to its natural level. While such symptoms persist there is always danger lest the case drift into one of chronic pulmonary phthisis. A deposit may, however, remain unabsorbed for a longer period, without danger, in the child than in the adult; but while it remains there is cause for constant anxiety lest any fresh inflammation be set up in the diseased part to lead to a further extension of the lesion.

Catarrhal pneumonia is a very common complication of tuberculous bronchitis. In such cases the disease runs a rapid course, and the symptoms and physical signs differ in no appreciable respect from those already described as characteristic of the most acute form of the disorder. The presence of the grey granulation is therefore a matter of inference to be determined by the history of the case and by the occurrence of new symptoms arising from other and distant organs which have become implicated in the general complaint. This subject has already been discussed in a previous paper (see *Medical Times and Gazette*, vol. i. 1874, p. 490).

On account of the absence of physical signs in the early period of catarrhal pneumonia, we must be prepared to make our diagnosis of the disease at that stage from a study of the general and local symptoms alone, without aid from a physical examination. The history of the case is usually that a child who had been suffering for some days or weeks with a very bad cough had suddenly become very much worse, with high fever, rapid laborious breathing, and an almost constant hacking cough. We find the patient with a distressed expression and a pale, more or less livid face; his nares act widely; he breathes quickly, but with much effort; and there is great recession of the soft parts of the chest-walls during inspiration. The pulse is small, the superficial veins are prominent, and the pulse-respiration ratio assumes the type so characteristic of pneumonia. His temperature is found to be 102°. Examination of the chest gives little positive information; there is no dulness on percussion, and the stethoscope merely detects

general moist râles of varyiug sizes over the chest and back. The symptoms are those of capillary bronchitis, with this difference—viz., that the temperature is higher than is found in an uncomplicated case of that disease; the respirations are more laborious and are rapid out of proportion to the pulse; and the cough is the cough of pneumonia.

These differences are of the utmost importance. If in a case of bronchitis the cough *suddenly* changes its character and gets short and hacking, while the pulse-respiration ratio becomes greatly perverted, and the temperature rises to 102° or higher, we may safely conclude that the original complaint is complicated by an attack of catarrhal pneumonia.

In cases where, in addition to the physical signs of bronchitis, some local dulness is discovered at any part of the chest-wall, with bronchial or blowing breathing, and a more or less dry crepitating rhonchus, this must be taken as additional evidence in favour of the pneumonic complication.

Lobular collapse of the lung is a disease which presents many points of resemblance with the one we are considering. Both are secondary to bronchitis. In both the lividity is great, the cough frequent, short, and hacking, the pulse small, and the breathing hurried. The natural relation between the pulse and the respiration is altered in both diseases—indeed, in lobular collapse this perversion often reaches its extremest degree,—and in both a physical examination may reveal nothing but the signs of bronchitis. Two important points of distinction are, however, found in the temperature of the body and the character of the breathing. In catarrhal pneumonia the temperature is high and the breathing quick and laborious. In lobular collapse, on the contrary, the temperature is normal or even below the natural level, and although the respirations are rapid, the breath is drawn quietly and without effort.

When catarrhal pneumonia affects a considerable extent of lung surface, so as to produce extensive consolidation, it presents a combination of the physical characteristics of bronchitis and pneumonia. Over the actual seat of solidification the signs differ in a very perceptible degree from those of croupous pneumonia. As in every case of lung consolidation, there is dulness on percussion, with increased resonance of the cough, and perhaps a perceptible vocal vibration of the chest-wall (although this sign, as in the case of croupous pneumonia in children, is very untrustworthy), but the breathing is often merely bronchial, or, if blowing, usually wants the intense sniffling character so characteristic of true tubular respiration. The crepitation, again, is seldom so fine or dry as in croupous pneumonia; it occupies, also, a greater extent of the breath-sound, and may not be limited, as in lobar pneumonia, to a fine puff at the end of inspiration. Often it is more a dry sub-crepitant rhonchus than a true crepitation. One of the principal points of difference, however, consists in the fact that while in croupous pneumonia the crepitation is limited to the confines of the consolidated portion of the lung, and is not heard where tubular breathing exists, in catarrhal pneumonia the crepitation becomes finer the nearer the stethoscope is moved to the centre of the consolidation, and is heard in the same spot with the most metallic blowing respiration.

The presence of the accompanying bronchitis is another feature which is characteristic of catarrhal, as distinguished from croupous pneumonia. In the latter the physical signs are limited to the part of the lung which is the actual seat of inflammation; or if rhonchus be heard at any other part of the chest, it is merely of the sonoro-sibilant variety, and is trifling in amount. In the catarrhal form, on the contrary, dry and moist râles are heard all over both lungs.

In catarrhal pneumonia the two lungs are usually attacked simultaneously, and a characteristic form for the consolidation to assume is that of a pyramidal strip on each side of the spine, reaching upwards from the base. Diffused collapse of the lung is very apt, also, to assume the same shape, and is also generally bilateral; it is, however, distinguished by the low temperature, and the absence of laborious breathing.

(*To be continued.*)

Examination of Naval Surgeons.—An examination of surgeons in the Royal Navy who are eligible and wish to qualify for the rank of Staff Surgeon, second class, will be be held at the Royal Naval Hospitals at Haslar and Plymouth on January 21 next.

## ORIGINAL COMMUNICATIONS.

# CASES OF OBSCURE NERVE DISORDER.

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(*Continued from page* 361.)

*Case 6.—Right Hemiplegia of Obscure Origin, probably Syphilitic—Failure of other means; Recovery under Iodide of Potassium.*

A. T., aged twenty-nine, axletree maker, admitted January 21, 1871. He was quite well before he was attacked on the 17th at 7 a.m. Found when he got up that he had lost the use of the right leg and arm. His speech also was much impaired; but he was not unconscious. He has remained since then in the same state. Face a little drawn to right. Tongue protruded straight. Pupils large, equal, and pretty active. Intellect clear; speech indistinct. Pulse 80, steady; temperature in right axilla 100·4°, in left 99·7°.

23rd.—Made a strange noise in sleep. Had much pain at back of head last night. Urine pale, specific gravity 1011, alkaline, contains perhaps some albumen, and deposits a whitish sediment of granular phosphates. Ammon. carb. gr. iv., tinct. valerian ℥j., pot. iod. gr. j., inf. valer. ℥j. ter die.

25th.—Pain in head gone. Speech improved. More movement in leg; none at all in arm—it is quite powerless. Sensory power in arm and hand is impaired; is inferior to that of leg; is alike in both sides of face. Pulse very weak, 70; temperature 99·7° in both axillæ. Port three ounces.

28th.—Seemed better on the 26th. Could move his forearm and fingers a little. Since then he has made strange noises in his sleep—just like those which epileptic patients make when they are coming to. Was out of bed this morning sitting, and he suddenly became quite lost; would have fallen unless he had been caught. Remained strange for some minutes after. Has much more movement in right arm. There is to-day a good deal of blood-tinged expectoration—almost pneumonic. Fairly good resonance and breathing in both backs and in both fronts. Pulse 72, weak; temperature 99·3°. Uvula drawn to right. Urine acid, clear, not albuminous. Pot. bromid. gr. xx., M.C. ℥j., quat. die.

30th.—No more attacks. Blister to left side of head over posterior aural region.

February 4.—Good night. Speech much more distinct; has very little power over fingers, but can move arm and forearm better, and can walk fairly. No pain in head. Disc in left eye very indistinct—its margins quite obscure and "woolly"; right disc remarkably small and of a yellowish-grey colour.

8th.—When he is lying quite still, and not moving other muscles, he seems to have hardly any power at all over the right arm, and cannot move fingers or forearm or the arm from the shoulder.

10th.—Pot. iodid. gr. viij., spt. ammon. co. ℥xx., tinct. cinch. ℥j., dec. cinch. ℥j., ter die.

15th.—Blisters to nucha.

18th.—No more fits.

23rd.—Improved; can squeeze a little with his hand.

March 15.—Improving.

April 5.—Can give now a good squeeze with right hand and use the arm freely.

*Remarks.*—The cause of the hemiplegia in this instance is rather obscure. The paralysis lasted with little variation nearly two months, and disappeared gradually, though it cannot be affirmed permanently. It was attended with phenomena very much of epileptic character, one seizure especially being almost characteristic. Besides these there were indications of optic neuritis. If to these facts we add that very considerable improvement took place under the administration of iodide of potassium in pretty full doses, and not under other treatment, the diagnosis of syphilis as the *causa mali* cannot but appear very probable. The previous existence of syphilis was denied, but too much importance cannot be attributed to this. Assuming that syphilitic deposit existed within the cranium, it is, however, somewhat remarkable that there was no pain in the head. The hemiplegia, which affected sensation as well as motion, seems to me rather to be attributed to the inhibitory action of the assumed deposit or tumour than to exhaustion of corpus striatum from epileptic paroxysms, for there were no apparent convulsions.

*Case 7.—Head Pain—Diplopia—Occurrence of Right Hemiplegia of short duration—Probable existence of Tumour in Brain.*

R. W., aged forty-six, painter, admitted May 24, 1872. Ill eight weeks; was quite well before. Had a fall on his head from a height of forty feet when a baby: injured the left side of his head near the vertex, but does not seem ever to have suffered from the accident. Is apt to have rheumatic pains in the limbs, which have often been cured by medicine. Has had gonorrhœa, but no syphilis; no sore or secondaries ever. Married twenty years. Slight traces of blue line on lower gums. Heart- and lung-sounds healthy; pulse 66, regular, weak; tongue coated; bowels costive. He got ill gradually, with loss of appetite and debility; became unable to work; got giddiness and headache four or five weeks ago; about same time noticed that he saw things double. The head pain has kept him awake at night; his head feels sore at the posterior left part when he lays it on a pillow. Has double vision at present, especially of objects at some distance—a pen held about two feet from his face is seen single, but at a greater distance it soon becomes double, and the farther it is removed the more widely the images are separated. If he closes either eye he sees then only one object. The movements of the globes appear to be harmonious. Pupils of medium size, tolerably active. Has good use of all his limbs. Ordered milk Oj., pot. iod. gr. iij., ammon. carb. gr. iv., dec. cinch. ℥j., ter die.

28th.—Double vision continues; four windows in the ward appear as eight. He can read a newspaper, but only by closing one eye. Discs not well defined; the large veins appear full.

June 4.—The pot. iod. has been increased to eight grains ter die since 30th ult. There is no improvement; much giddiness. Ordered strychniæ gr. $\frac{1}{24}$th, acidi nitrici ♏j., aq. ℥j., ter die.

11th.—Yesterday patient was as well as usual, walking about. He said his double vision was decidedly less; he could see objects single and distinct a good way off—half the length of the ward; more distant objects appeared double. Soon after going to bed he found he could not turn to the right side, and his speech was a good deal impaired, more than it is now, though even now it is not distinct. He did not lose consciousness. Right arm and leg are paralysed, the leg most completely. Sensory power not impaired. No reflex movement on tickling sole of foot. No facial paralysis. Vision not any worse. Pulse 84, of fair force; bowels open. The strychnia was left off, a blister was applied to the left side of head, and he was ordered to have acidi sulph. dil. ♏x., magnes. sulph. ℥ ss., aq. cass. ℥j., ter die. S. diet and fish.

On the 13th his temperature was 99·8°; pulse 90.

20th.—Has regained much more power in leg; complains of loss of appetite, and of sick headache.

24th.—Hemiplegia disappearing; has much less diplopia; can see objects single at the whole length of the ward.

27th.—Repeat blister to left side of head.

July 4.—Can move the arm quite freely, the leg not so well, but is able to walk a little without a stick.

8th.—Left pupil oval; right lid shows slight ptosis. Face is a little drawn to right; tongue put out straight. Hydr. bichlor. gr. $\frac{1}{24}$th, spt. chlorof. ♏x., tinct. opii ♏iij., aq. ℥j., ter die.

15th.—Feels much better; has good use of his limbs; marked ptosis of right lid. A few days ago had no double vision when looking to right, but had when looking to left.

22nd.—Pain in head quite gone; sight very greatly improved; has quite regained the use of his limbs, but has some ptosis still. Is not able to work yet. He became an out-patient.

He was last seen September 2, when he experienced some giddiness when walking, or, on a scaffold at work, did not feel safe. There was scarcely any ptosis, but he could not see well when using both eyes.

*Remarks.*—The history of this patient went to negative syphilis, except the frequent recurrence of rheumatoid pains in the limbs, and the pain and soreness of the head, which were suspicious. The fall in infancy can hardly be incriminated as a cause of the disorder occurring forty-four years later. The diplopia and the ptosis are evidence of some interference with the action of the orbital nerves. As the former was present when he looked to the left, but not when he looked to the right, it seems probable that the left external rectus was more or less paralysed, the right remaining sound; yet the ptosis affected the right third nerve. The hemiplegic seizure can scarcely have been the result of grave organic lesion of the corpus striatum, as it scarcely lasted more than a month; but the retention of consciousness makes against its being the result of an epileptic attack. In the absence of an autopsy, no satisfactory explanation can be given; but that which seems to me most probable is that a tumour (non-syphilitic) existed in the posterior part of the left cerebral hemisphere, which, acting as an irritant, produced inhibitory paralysis of the ocular nerves and of the right limbs, and giddiness. The bichloride probably lessened the quasi-inflammatory morbid action taking place around the tumour, and therewith diminished the inhibitory effect.

*Case 8.—Frequent Epileptic Fits—Sequel of Rigid Extension of Fingers and Hands after one or two attacks, of Paralysis after some others.*

A. Y., female, aged eighteen, seen November 7, 1872. Has had epileptic fits for two years and a quarter; has had no fits for three months now. She used to have them usually once a week—three or four in a day; the interval was never longer than three weeks. Never injured her head or hurt herself in falling. For about one hour before the attacks came on was sick and giddy, and could not hold herself up. Used to bite her tongue and foam at the mouth. Always fainted away after she recovered consciousness. On November 2, while cleaning, her right fingers and arm began to tingle; she lost her speech and the sight of her right eye for half an hour; her lips swelled, and a shock seemed to go across the top of her head, but she did not become unconscious. Ever since then her fingers and hand have been rigidly extended; her elbow and shoulder were rigid also, but recovered after a few hours. Cannot sleep at night; seems unable to close her eyes. Is otherwise well. No pain in back or head; no epilepsy in family. K. Br. gr. xxv., M.C. ℥j., ter die.

November 18.—One fit occurred on the 9th, which did not affect her hands.

On the 13th she had a fit lasting one hour and a quarter, after which both hands were rigid and useless for thirty minutes, but she then regained the use of her hands.

On the 14th another fit occurred, but the hands were unaffected, and she continues to have good use of them.

25th.—Is very ill; has had five fits lately. K. Br. ʒ ss., M.C. ℥j., 4tis horis.

December 2.—No fits last week. The week before they occurred daily until the last two days. Hands are all right.

16th.—Lost the use of right hand on the 3rd, and did not regain it till the 13th. On the 10th she had a fit, and lost the use of arm as well as hand; both recovered on the 13th. Both discs are small, and of dull whity colour, like mortar; their surface appears slightly rough; there are no vessels on them except the large trunks. Sight perfectly good with both eyes. K. Br. ʒj., M.C. ℥j., ter die.; ol. morrh. ʒ ij., semel die.

*Remarks.*—This patient was an extern, and was seen only a few times by me. The epilepsy appeared to be essential. The loss of speech and of vision during what was evidently the equivalent of a paroxysm, though unattended with loss of consciousness, are interesting phenomena. Is it to be supposed that the vessels of the optic lobes and of the hypoglossal nuclei were spasmodically contracted, while those of the hemispheres were open? That would be a hardy assumption. The chief point, however, for notice is the sequela of rigid spasm of the extensor arm-muscles succeeding two of the seizures, while the previous ones had no such effect, and those of December 3 and 10 were followed by the more ordinary event of paralysis. This fact shows forcibly the affinity existing between spasm and paralysis, inasmuch as both seem to originate in the same morbid state, and throws doubt on the view that hemiplegia is the result of mere exhaustion of corpus striatum cells from the excessive discharges of nerve-force taking place in the paroxysm. I doubt very much whether there will generally be found any direct relation between the convulsive severity of the epileptic fits and the occurrence of paralysis as a sequel. My own experience is to the effect that mild paroxysms may be followed by hemiplegia, while those of greater severity have no such effect. What determines the occurrence of spasm rather then paralysis is altogether beyond our ken. The optic discs appeared to be in an atrophic condition, perhaps from previous neuritis.

*Case 9.—Rapid Supervention of Cerebral Disorder, probably from Hæmorrhage into Arachnoid—Hemiplegia chiefly of Leg—Recovery—Urine altered.*

J. D., aged forty-five, has been thirteen years in the police;

admitted April 6, 1872. Has never had any serious injury to head, but his legs have been hurt. Has been ill about ten days; was suddenly taken at 1.30 a.m., while walking, with a sudden sensation at the top of head, extending downwards, as if his brain was being compressed. He had very violent pains in his head all that day; the pain "took away all power of speech, and thought, and locomotion." His wife saw him two hours after he was taken ill, and says he seemed to comprehend what was said to him, but to be unable to reply, and appeared "as if lost." About the following noon he recovered to some extent; was able to speak and give some account of what had happened. He was also very sick and vomited much bilious matter. He says he was sick also before he came home. Never experienced anything of the kind before. An elder brother confirmed subsequently his statement that he was not subject to fits. He never knew any of their family to have any. He had neither eaten nor drank anything that could have disagreed with him. Since his attack he has had violent pains in his head and all over him, relieved somewhat by a sinapism. He can't walk or sit up in bed without aid. Says he seems partly paralysed in the lower extremities; more in left leg than in right. Left hand and forearm for a little way up feel numb and dead. Right hand grasps a little stronger than left. Left leg is very notably paralysed; he can flex the knee a little, but is quite unable to extend the limb again when I hold the foot. The right leg he can extend powerfully against all my efforts. Face not distorted. Tongue put out straight; coated. Has difficulty in passing urine. Bowels act fairly; the sphincter does not seem paralysed. Some pain across forehead, chiefly towards right. He is apt to have pain over the right eye when he gets a bad cold. Dry bronchial râles in both backs and both upper fronts. Pulse 60, of good force. Sounds and action of heart normal. No traces of syphilis. Ext. ergotæ liquidi ʒj., aq. ℥j., ter die. Broth diet. Blister two inches square to right side of head.

8th.—Urine highly alkaline; deposits granular and prismatic, besides oval globules; is not albuminous; effervesces strongly with nitric acid.

10th.—Has much more use of leg; can flex and extend it well, and can push against my hand, resisting it with pretty good force. He tried to walk the other day, but found his leg dragged much. Pulse 69, quiet, steady, of medium size. Right radial compressed by 360 grammes. Urine strongly alkaline; offensive; deposits phosphates. Pupils (as on the 6th) of medium size.

13th.—Both optic discs appear obscured and overlaid, as it were, by some semi-opaque substance; the veins are large and dark. He walks about now fairly well with a stick. Says the left foot feels numb. Urine clear, not alkaline.

17th.—Walks now almost perfectly well; has only a little numbness and weakness in the left limbs. Discs to-day appear normal. Went out next day. The urine then was clear, acid, specific gravity 1020, not albuminous.

*Remarks.*—The main features of this case were cerebral disorder, supervening suddenly, though not arriving, I think, at its maximum instantaneously, severe pain in the head, bilious vomiting, alkaline urine, and paralysis of the left leg of some ten days' duration. What causation can be suggested for these phenomena? The mode of onset and the symptoms are so unlike those of epilepsy that I suppose no one will consider the attack to have been of that nature. Besides, it seems certain that there was no epileptic tendency, either in the patient or in his family. Had things been otherwise, a convenient explanation of the paralysis would have been at hand, but as they stand the view of epileptic hemiplegia seems inadmissible. But that the paralysis depended on the cerebral disorder seems to me unquestionable; so that the one point to determine is in what way the encephalon was affected. The symptoms are not those of ordinary hemiplegia from clot in the substance of the brain; they can hardly be attributed to embolism, or softening, or tumour, or syphilitic deposit. Putting these aside, a moderate hæmorrhage into the cavity of the arachnoid at the convexity seems to me the most probable lesion. Such hæmorrhages are not very rare, and may be spontaneous or of traumatic origin. The history makes in favour of the former rather than of the latter. A gradual effusion of blood on the convex surface of the brain might well cause the violent pain in the head and all over him, the sense of compression of the brain, the temporary loss of the intellectual faculties and of speech, and the bilious vomiting. The latter would be produced just as in migraine. The state of the urine must also, I conceive, be attributed to the intracranial lesion; it concurred with pretty extensive nerve paresis, and passed away together with it. It was, however, a very remarkable instance of the power of brain-shocks to induce an alteration in a nutrient (secretion) process. Not only was the reaction of the fluid rendered strongly alkaline, but the urea itself, the chief constituent, must have been decomposed, or rendered unusually prone to decompose by this influence, for there was nothing to account for it in the condition of the urinary passages. It is of course a trite fact that alkalinity of the urine is often, though not always, present in states of depressed nerve-power; but breaking up of urea is not produced by mere alkalinity, and betokens a still greater interference with the vital chemistry. The paralysis, I have little doubt, was hemiplegic, and of corpus striatum locality, although the arm was so much less affected than the leg. It depended, I believe, on the inhibitory influence of the effused blood on the nerve-centres, and not on squeezing of the brain. In fact, this is evident, as otherwise coma must have been coexistent with the paralysis. Why the arm was so little affected it seems impossible to say. The treatment was appropriate to the view of hæmorrhage, and, whether it be held to have accelerated recovery or not, may claim to have been rational.

*Case* 10.—*Paralysis (Hemiplegic) of Obscure Origin, probably Epileptic from Syphilis (?)—Recovery.*

J. B., aged thirty-two, groom, admitted June 29, 1874. Had small-pox five years ago. Right forefinger removed two years ago on account of mischief set up by its being poisoned with verdigris. He also got erysipelas in the head, which lasted three weeks. On June 25 he was at work till 8.30 p.m., when he felt a numbing pain in the left shoulder, and in the morning was unable to move his arm. It has remained in the same condition since. He now feels a prickling sensation at times in the front of the left forearm like pins and needles. Has no pain in the shoulder, except when he lies on it. The arm is totally powerless—falls as an inert mass when raised. The left shoulder is lowered. The line of the shoulder slopes down notably. Sensibility of left arm not at all impaired. No tenderness in any part of spine. His mouth is slightly drawn to the right. Temperature 37·6° (99·7° Fahr.); pulse 66.

On June 28 his speech was very much impaired, and the day before he fell down, having been left awhile in a room by himself. His head is very tender and aching. Lung- and heart-sounds normal. Potass. iod. gr. x., inf. cascaril. ʒj., ter die. Blister to neck.

July 1.—Right fundus hazy; veins dark and full; outline of disc perceptible, but its surface seems overlaid by some semi-opaque matter. Can walk well.

3rd.—Grasping power of left hand weak, but he can raise his arm up vertically above his head, and can flex his elbow well. His speech is normal. Chop.

On the 6th the power of the left hand was nearly, on the 9th quite, equal to that of right; he was quite well except a little giddiness when he moved about. He went out soon after.

*Remarks.*—If it be allowed to assume the existence of syphilis in this case, of which I admit I saw no trace, the phenomena are easily explicable. The tenderness and aching of the head may be taken to signify the existence of endosteitis, or gummatous intracranial deposit, which gave rise to a nocturnal unnoticed epileptoid attack, which caused hemiplegia, which subsided in a few days, its departure being perhaps accelerated by the good effect of the iodide of potassium on the osteitis. Without the above assumption the case is very obscure, unless, indeed, some other agency (say the cause of rheumatism) can cause a train of effects like those of syphilis. I am not sure the possibility of this can be denied.

## SOMETHING NEW (OR BELIEVED TO BE SO) IN DENTAL SURGERY.(a)

By WILLIAM DONALD NAPIER, M.R.C.S.E.

Besides many other advantages enjoyed by the Fellows of this Society, too obvious as well as too numerous to recount, it is, I cannot help thinking, especially in their favour that the rules by which their proceedings are controlled are sufficiently broad and elastic to admit of the consideration of any one of the

(a) A paper read before the Medical Society of London, Nov. 16, 1874.

almost countless branches of the subject to which it owes its name. But for this latitude, on which I have especial reason to congratulate myself this evening, I should have hesitated to tender for your consideration, at any rate without a prefatory apology, a paper connected with the practice of dental surgery.

The rapid advance in the practice of medicine and surgery that has been steadily and unceasingly exhibited even within the short period of our personal recollection is doubtless in some measure due to its subdivision into the component parts that are now made severally the subjects of individual study and special application, and it is a considerable encouragement to those whose immediate sphere of action is comparatively limited to one branch of the wide-spreading system that their successes are recognised and esteemed, not as isolated instances of disconnected interest, but as tending to augment the aggregate importance of medical science.

The particular case of which my paper treats I believe to be rare, but not sufficiently so to justify my bringing it under your notice on the ground of singularity. I would rather beg your patient attention to a brief narrative of the means adopted for its treatment, which I have reason to think are devised and practised for the first time; and I shall be especially gratified if it proves to be of sufficient interest to provoke the discussion that is invaluable in the elicitation of relative truth, and the elucidation of the subject on which it is brought to bear in the spirit that animates the Fellows of this Society.

In May, 1873, I was consulted by an Indian officer in the prime of life, and in the enjoyment of good general health, impaired only by a condition of teeth that gave rise to a great amount of painful nervous irritation, interfered with his power of distinct articulation, and, in addition, considerably marred his personal appearance. Extremes of heat and cold, and the contact of sweets and acids, served to increase his discomfort, and to interfere in more than a slight degree with his enjoyment of life.

The casts which I have on the table will aid me in explaining the appearance of the month as it was when first presented to me, and will also be of assistance in illustrating the means I adopted for the relief of the patient; but before submitting them to your inspection, I should like to describe as accurately as I am able, in a few words, the impression produced on my mind by the abnormal condition of both the upper and lower jaw that I was called on to treat.

The teeth in both, and more markedly the six front ones, bore striking indications of deterioration by attrition, but as they failed to attain contact when the jaws were pressed together, it was plain that the loss of substance could not be attributed to their mutual action on each other. Now, although one of my objects in publishing this case is to elicit the opinions of others as to the primary cause of the condition alluded to, I may mention in passing that I am myself inclined to trace its existence to the effects of salivation by mercury, which this gentleman remembered having been subjected to, although so long ago that my inquiries did not at first recall the circumstance to his mind. Previous experience had led me to be especially careful to regard the antecedents of the malady, for I am of opinion that there are other phases of the subsequent action of mercury than those that it ordinarily presents and that are generally recognised.

John Hunter, in his work entitled "The Natural History of the Human Teeth," published in 1788, bears testimony to the existence of the disease, which he defines as "the decay of the teeth by denudation," but he at the same time distinctly states it to be his opinion that it is (I am quoting his own words) "an original disease in the teeth themselves, and not dependent upon accident, way of life, constitution, or any particular management." Joseph Fox, likewise, makes mention of it, and is disposed to think that it may be induced by some solvent quality in the saliva; whilst Thomas Bell, at the same time that he confesses his own inability to assign the effect to its true cause, condemns Fox's theory as "wholly at variance with the fact that certain teeth are more liable to it than others, as well as with the situation of its commencement, and the regularity of the direction in which its ravages are carried on." In later works upon the treatment of the teeth, such as Mr. Tomes's, I have failed to discover any mention of this particular form of disease.

But to return to the narrative, from the direct course of which I have a little digressed, and with the purpose I have named.

In addition to the suffering consequent upon the morbid sensitiveness of the teeth, or rather what remained of them, to which I have already made allusion, an incalculable amount of chronic discomfort was inflicted by the peculiar form which they had assumed, causing them to resemble nothing to which I can compare them but a row of upright spikes so sharp and jagged that it was useless to try even to hope that the mouth could ever accommodate itself to them as occupants; whilst, at the same time, the express stipulation made by their owner in the very first stage of my acquaintance with him—that he should under no circumstances be subjected either to the most trifling measure of pain, or to the influence of any anæsthetic whatever—rendered his chance of obtaining relief extremely hazardous.

He, indeed, went so far as candidly to assure me that he would prefer to endure his present distress rather than submit to any treatment that I could not first assure him would be absolutely painless; whilst, as I have already said, his prejudice against nitrous oxide gas and chloroform was far too vivid for me to attempt to overcome it by argument.

Under ordinary conditions the case presented no remarkable complications, and the course of procedure would be simple enough. The teeth would be filed down level with the gum, and each nerve withdrawn singly, either during a state of unconsciousness artificially induced, or, if the patient's courage and endurance were equal to the demand upon it, without deprivation of the sense of touch, preparatory to their being replaced by artificial substitutes. But, fettered as I was by the compact between us that I should desist from manipulation directly my patient was conscious of a sensation of pain, I must allow that I did not anticipate the first operation with the confidence that is so valuable an auxiliary in the attainment of success, being well aware that the withdrawal of the nerve of a tooth is capable of causing—and, indeed, so long as there is vitality, never fails to cause—the most exquisite pain to the subject.

In this instance I indulged a hope that the employment of the ether-spray might render me valuable assistance, and the result did not fall short of my anticipations; but I did not resort to it until I had, on the first occasion of operating, filed the tooth that I selected for experimental treatment as deeply as I was able to do in the ordinary manner, ceasing only when my patient betrayed a sense of discomfort. The application of the spray, judiciously handled by my friend Dr. R. Lee, of whose proffered assistance I had gladly availed myself, and on subsequent occasions, when I was unable to secure his services, the employment of a piece of cotton-wool dipped in ether, and laid first on the tooth and then on the instrument, enabled me to continue the process until the nerve of the tooth, with artery, vein, etc., was exposed.

And it was at this moment that I put to the test of practice the theory that had suggested itself to my mind, as not only a possible solution of the difficulties by which I was somewhat hardly pressed, but as an enduring means of escape from the performance of an operation that has always appeared to me to be at variance with the first principles of surgical art. I mean the demolition of the nerve, which is, as you are doubtless aware, a practice of everyday occurrence, not always, I take it, justified by the circumstances of the case. Here I had cogent reasons for refraining from the attempt, but it was no new thing for me to seek for a method of evading what I believed to be false in principle and defective in use.

If a nerve with the vessels that accompany it is qualified by its nature and position to convey vitality and afford nourishment to so dense a structure as the tooth, I hold it to be a fatal mistake to remove it so long as it is performing functions that you are entirely incapable of causing to be fulfilled without its assistance. And the result never fails to make silent protest against the unmerited treatment; for the tooth, deprived of so important an adjunct as its internal supply of nutriment, eventually perishes—affording another proof, if an additional one were required, of the fact that nothing has been created in vain.

My object was to attain a safe and efficient method of preservation in lieu of the destructive system which I so cordially deprecate, and it is for the success accomplished in this particular alone that I lay claim to the title of originality.

The process I pursued was as follows:—With a delicately cut pencil of hard hickory wood dipped in nitric acid, I very gently and very deliberately cauterised the exposed portion of the nerve in each tooth successively, which, rendering the surface insensate, enabled me to perfect my task of reducing the teeth to the level of the gums with a file, without inflicting on the patient any of the pain he so much dreaded.

It then remained only to replace the ejected members with artificial substitutes, in the use of which he enjoys a complete immunity from the various inconveniences that he had suffered from when in the state I first described to you, and of which the models afford ocular evidence. I think, therefore, that I may fairly assert that in the treatment of the foregoing case, which I have described to you as accurately as I am able, I may count on having at least perfected the subjugation of two formidable obstacles that lay between me and what alone I should care to call complete success. In the first instance I overcame the difficulty—no mean one, as it appeared to me at first sight—of painless manipulation; and in the second, I was able to do what was even more gratifying to myself: to prove the possibility of evading a practice which, though universally recognised as legitimate, I have long held to be in direct opposition to the spirit of the laws that guide us, and by so doing to bring myself a step nearer to the attainment of what we all strive for in doctrine as in practice—the art to retain what is sound and to reject only what is unprofitable.

Before concluding my paper, I should like to advert for a brief moment to the topic with which I opened it—one which has been with me the subject of grave and earnest consideration. I mean the recognition of the various sections into which the great system of medicine is rightly enough divided as "parts of a whole"—branches owing their vitality to the main stem, from which they derive nutrition and support.

I have been perhaps insensibly led to the study of the subject by my experience of the impediments that are occasioned in the paths of both by the line of demarcation that is supposed, and in many cases permitted, to exist between those practising the speciality in which I am myself engaged and those who follow simple medicine or simple surgery. I do not allude to any want of harmony between the men, but to what I am not, I hope, over-bold in defining as a want of mutual professional appreciation sanctioned by the system. I myself estimate daily at greater value every minute atom of the general knowledge that furthers my utility in my special vocation, and in like degree I am tempted at times to regret the deficiency of men infinitely my superiors in mental capacity and attainments in that which would, I know, be of inestimable value to themselves.

Specialism must exist. It has been a spontaneous and, I believe, a healthy growth, consequent upon the expansion of science, the increase of population, the advancement of civilisation. All that I would argue is, not that the specialist should cease to be a specialist, but that his preliminary knowledge should be as diffuse as though a clear and distinct perception might at any moment be demanded of him of other subjects than that which he may make his prevailing study. And, as it is necessarily in his education and training that the balance must be adjusted, I hold it to be extremely advantageous that they should be conducted on as comprehensive a system as possible. I have for this reason—whether rightly or wrongly, certainly conscientiously,—discountenanced what are termed "special hospitals," and I hope and believe that the day is not far distant when one roof will shelter all the various schools in which it is advisable that a young man should gain the knowledge that is to be the secret of his strength in days to come.

If each of our metropolitan hospitals were provided with a dental department, duly and fitly organised, and not, as at present, devoted principally to the study and practice of extraction only, the benefit would be incalculable, not only to the rising body of medical practitioners, but to the public. Caries of the teeth is of all diseases the most common to humanity, and all who practise the healing art should surely be capable of its treatment by remedial measures rather than by what ought to be the last resort, extraction. Among the crowd of students who throng the general hospital there are few who know with any approach to certainty where their lot in life will be cast, and it is for them to acquire, as far as possible, the instruction that will render them independent of the facilities that are afforded to the occupants of cities only.

To those gentlemen who may be summoned to practise their calling in remote counties a more thorough acquaintance with this subject would, I believe, be of greater importance than they are aware of; whilst to the many who are placed in charge of the men of the army and navy on foreign service it would be a means of increasing their income to no despicable extent, for to them alone have the civil population in many instances the opportunity of applying for assistance.

In my earnest desire to plead the cause of a science that has hardly, I think, received its due meed of attention, I have, I fear, sir, trespassed full long on your time, but as my motives have not been wholly interested, I hope that I may be forgiven; and I would only remind those who may be induced to devote more of their time and thoughts to it, that they need hardly account that to be a wholly inglorious field for labour in which they may avow themselves to be fellow-workers with John Hunter.

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ON

# ALOPECIA AREATA AND TINEA TONSURANS.

By TILBURY FOX, M.D., F.R.C.P.,

Physician to the Department for Skin Diseases in University College Hospital.

The note from the pen of my excellent *confrère* Dr. Liveing, which appeared in your columns last week, relative to the recent discussion at the Pathological Society concerning the nature of alopecia areata, scarcely conveys a correct idea of the views which were put forth at the Society by myself and others. I therefore seek this opportunity of restating in definite terms what my opinions are regarding the nature and cause of alopecia areata and similar conditions.

Dr. Liveing remarks "that this latter disease (alopecia areata) is not directly produced by any form of parasite, I take to be as nearly as possible proved." But I go farther than this, and affirm that it is certain that alopecia areata is never so produced. At the same time I am bound to state my belief that (omitting syphilitic cases), as far as clinical evidence goes at present, all cases of circumscribed baldness are not instances of alopecia areata. It would appear from the positive statements of dermatologists that very occasional cases are met with in which circumscribed baldness results from the attack of a fungus; in fact, that there is a parasitic and a non-parasitic form of alopecia, as there is a non-parasitic and a parasitic form of sycosis. To the former, very rare in its occurrence, I apply the term "tinea decalvans," to the latter or commoner form that of "alopecia areata." The two things differ clinically, as I have elsewhere pointed out. The real question at issue is surely this: Is there only one cause of circumscribed baldness; and must it always arise from atrophy, and never from the attack of a parasite or from any other cause?

Sir William Jenner, at the Pathological Society, remarked that if the fungus was only occasionally found in alopecia areata it could not be the cause; and Dr. Liveing uses an identical argument for the same purpose. No one disputes its conclusiveness; but is not its use rather like setting up a man of straw only to knock him down again?—since all admit that no fungus is found, or only occasionally in such minute amount as not to possess any claim to be regarded as a cause, in alopecia areata. These gentlemen quite unintentionally misrepresent such views as those which I hold, from using the terms circumscribed baldness, tinea decalvans, and alopecia areata as synonymous, and from not recognising the fact that others do not. Whilst, therefore, fully admitting that circumscribed baldness in almost all instances is non-parasitic and properly termed alopecia areata, I hold that in rare cases it may arise from a parasitic cause, and should then be termed tinea decalvans. In the latter case the signs of atrophy in the texture generally are not marked. I will not bring forward my own facts in illustration of the existence of tinea decalvans, but I will quote from a paper published two years ago by Dr. White, the Professor of Dermatology at the Harvard University, the following extract. He says, "They [the deniers of the existence of parasitic tinea decalvans] base their opinions upon their failure to find in cases recently examined any such plant as Gruby described or as Bazin and other dermatologists have figured; but inasmuch as their testimony is wholly of a negative character, how is it that they offer it as an offset to the positive observations of other and equally competent investigators? To the list of those who have been fortunate enough to see the fungus in cases of alopecia areata [he means tinea decalvans], I may add myself. In two young gentlemen, aged seventeen and twenty-four, companions, and presenting all the striking and unmistakable characteristics of the disease, all the parasitic elements were found to be abundantly present."(a) With such and similar positive evidence I cannot but hold to the opinion that there is apparently a

(a) "Vegetable Parasites, and the Diseases Caused by their Growth upon Man," by J. C. White, M.D. Boston, 1872.

circumscribed form of baldness which is parasitic in origin. All that Dr. Liveing (and those who think with him) can say is, that tinea decalvans (parasitic) has never occurred in his experience. From pushing negative evidence too far, many mistakes have before now been made, as by Hebra in regard to parasitic sycosis and eczema marginatum, and by others in reference to other diseases.

There is a second matter in Dr. Liveing's communication upon which I desire to offer a few remarks. It relates to the part played by the fungus in the production of tinea tonsurans. Sir William Jenner is reported to have said that the fungus "is probably not the essence of the disease, even though it may be always present." To this Dr. Liveing gives his entire assent. It is quite true that the bodies of patients with tinea tonsurans offer a favourable nidus for the growth of the fungus, and no one could have laid more stress on this point than myself, but it is equally clear that nothing but the growth within and about them can produce the altered, dry, lustreless, swollen, opaque, brittle hairs of tinea tonsurans. These diseased hairs never occur without the fungus. I agree that "the development of the fungus is not always in proportion to changes present in the skin and hair, showing that other causes are at work," but these changes relate to the accidentals and not the essentials of the disease, and are other than the peculiar alteration in the hairs, and are dependent upon the degree of irritation set up or the state of the health. The special hair-changes in tinea tonsurans are in direct proportion to the degree of luxurianee and amount of fungus.

The statement is made, in disproof of any active part played by the fungus in the production of the disease, "that in many cases of tinea tonsurans the comparatively healthy hair of the whole scalp loses its lustre, becomes harsh, dry, and brittle, and more opaque than in health, without the growth of fungi beyond the ringworm patches, and the same condition of hair remains for months after all parasitic growths have disappeared." If by this is meant that the changes above indicated are identical with those in the parts attacked by the parasitic growth, then I give it a distinct denial. The hair, when eczema occurs on the scalp as a complication to ringworm, or when it is frequently washed with such things as soft or strong soap, and under some other conditions, may lose its colour and lustre, and become dry and coarse, but it never alters in texture, becoming brittle, disorganised, broken off close to the scalp, and fatty, as over the ringworm patch. The microscopic characters are quite different. Hence this argument falls to the ground.

Lastly, Dr. Liveing says—"If the fungus were the essence of the disease, we should expect the malady to be less capricious in its nature," referring to the very varying degree of obstinacy which it exhibits. But this variation in duration is to be explained by the fact of the varying favourability of nidus which the fungus finds in different subjects. The fungus is always the producer of the hair disease, but in some cases is more potent in its action and more difficult to destroy, because of the more favourable conditions which exist for its development and growth.

The proof that the fungus is the essential cause of the ringworm—viz., the diseased hairs and epithelium—is to be found in the fact that these diseased hairs, etc., are *never* found except in connexion with a luxuriant fungus, and the disease is then increased *pari passu* with the development of the fungus.

14, Harley-street, W.

## CASE ILLUSTRATIVE OF THE DIFFICULTIES WHICH MAY ATTEND THE DIAGNOSIS OF TYPHUS FEVER.

By JOHN LEWTAS, M.B. Lond.,
Honorary Medical Officer, Liverpool North Dispensary.

A. H., a young man, aged twenty-two, was taken on August 13 of this year with pains in his back and chest, and with headache. During that day he followed his vocation of housepainter. On the 15th he took to bed, and when I saw him he presented no symptoms other than those of general pyrexia. On the 16th he felt so much better that he sat up for an hour. The day following, however—being the fifth of his illness,—his condition was described thus: Pulse 92; temperature 104·4°; tongue coated with a thick white fur, and not quite dry. On the front of the abdomen are six or seven pale rose-coloured semi-papular spots. Some pain felt on pressing over the right iliac fossa. Abdomen not swollen. Bowels regular.

18th.—The sixth day of the disease. Pulse 96; temperature 104°. Delirious in the night. A much larger number of roseolæ visible on the abdomen and on the chest as high as the clavicles; none to be found on the flanks, back, face, or arms. Tongue dry. Bowels opened once in twenty-four hours. Temperature at eleven p.m. on this and the preceding night was 104°. Face not flushed. No abdominal gurgling or tympanites.

19th.—Seventh day of disease. Pulse 96; temperature 103·8°. Eruption to all appearance the same as yesterday. Tongue red and glazed. Complains of frontal headache. Temperature at 1 a.m. was 102·4°.

20th.—Eighth day. The trunk and arms are covered with well-marked typhus eruption, both maculæ and mottling being abundant. At 10 a.m. he was attacked with epistaxis, which was checked with difficulty, and not before he had lost about fourteen ounces of blood. Pulse 104. Temperature at 12 p.m. 103·8°.

21st.—Ninth day. Pulse 102; temperature 103·8°. Evening temperature the same.

22nd.—Tenth day. Pulse 120; temperature 102·4° (at noon). Is "shouting deaf." Evening: Delirious and violent.

23rd.—Eleventh day. Pulse 124; temperature 104°. Seems exhausted. Maculæ and mottling of a livid purple colour, and quite unaffected by pressure.

24th.—Twelfth day. Pulse 140; temperature 104·5°. He refuses all food. Subsultus tendinum is a marked symptom. His pulse is with difficulty counted, being tremulous and feeble. About noon he was prevailed on to take some wine, and seemed to rally. However, about 5 p.m. his nurse said he seemed to "go off in a faint," and he died.

*Remarks.*—This case is of interest as exemplifying the difficulties which may attend the diagnosis between typhus and typhoid fevers. In the above instance no clue was given to the particular nature of the disease until the fifth day, when some six or seven roseolar spots appearing on the abdomen led one to expect the development of typhoid. This, it is true, was earlier by a day or two than the usual period at which the eruption of enteric fever appears; but we can rarely in either of these fevers obtain precise dates. A pulse of 92 and a temperature of 104·4° at this (the fifth) day would be as suggestive of typhoid as of typhus. Add to which that the patient experienced pain when pressure was made over the right iliac region, and I think it will be admitted that the idea that enteric fever was imminent had the support of probability. Diarrhœa, it must be owned, had not been a symptom. Consider further the report of the following day: more of these semi-papular spots had come out, and were confined to the front of the trunk. In this connexion I quote from Dr. Buchanan, who says—"But the most essential distinction between the two eruptions is, that that of typhus comes out in one single crop, while in typhoid fresh sets of spots appear day after day." Further, "the presence or absence of diarrhœa is not much to be relied on for distinguishing the two fevers" (Reynolds's "System of Medicine," vol. i., p. 444.) On the seventh day, also, things remained much in the same position; but on the day after the aspect of affairs was totally changed by the development of the eruption distinctive of typhus. From this point onwards to the fatal termination the case presented no features calling for remark. I may here add that there had not, so far as I could learn, been a single case of typhus fever in the neighbourhood. The man's occupation as a house-painter would, however, take him into all sorts of localities. The epistaxis occurred when all doubt as to the form of the disease had been laid aside; otherwise it again would have thrown its weight into the scale of typhoid. This is not the only doubtful case of this kind that I have seen. When resident in the Seamen's Hospital, where a considerable number of cases of typhoid and a few of typhus come under treatment, one or two of a somewhat similar kind occurred—cases which presented such a medley of symptoms that their precise diagnosis remained dubious throughout; and of these Dr. Ralfe used to say that it would be impossible to assert definitively whether they should be called typhoid or typhus fever. No post-mortem was made in this case, nor would I presume to suggest that typhoid and typhus fevers might occur together in the same individual. Analogous instances might, however, be cited of the co-existence of measles with scarlatina, of the latter with small-pox, of typhoid with cerebro-spinal meningitis, and—most pregnant fact of all—of typhus with dysentery.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## THE CENTRAL LONDON SICK ASYLUM, HIGHGATE.

### NEPHRITIC ABSCESS—TAPPING—RECOVERY.

(Under the care of Dr. DOWSE.)

This case is exceptional, and worthy of record, although the diagnosis cannot be further verified. A similar case came under Dr. Dowse's care some years ago, in a girl of the same age, where the kidney was found to be a mere sac without any trace of its original structure.

Harriet W., aged 18, was admitted with the following history:—Five months previous to her confinement she experienced severe pain in the right lumbar region, which continued more or less until the time of her delivery, and almost immediately after the child was born pus was observed in the urine. When first seen after admission she was much exhausted, the pulse was weak, respiration hurried, the cheeks were suffused with a hectic flush, and the body bespattered with patches of erythema, in some parts nodose, in others purpuric. She was of a jaundiced hue, and there were other signs and symptoms indicative of blood-poisoning. The pain in the abdomen was severe, but confined more particularly to the right lumbar region.

Upon examining the abdomen a swelling was found to occupy its right half, of regularly rounded and well-defined outline; it merged into the hypochondriae, umbilical, and inguinal regions, but filled up the whole of the lumbar. There was distinct fluctuation anteriorly as well as over the region of the kidney posteriorly. The urine was loaded with pus. With treatment the abdominal pain lessened, and the general health improved. The swelling continued to increase in size, and the urine to contain less pus until it was absolutely free. It was then decided to puncture, and an ordinary trocar was freely inserted, which liberated about twenty ounces of stinking, glutinous, purulent matter. After the trocar was withdrawn, the aperture was allowed to heal, and again pus made its appearance in the urine, and the swelling increased larger than ever. It was once more emptied, and kept so by means of a drainage-tube. For a week the discharge continued to make its escape freely, but produced little constitutional disturbance, the patient's temperature never exceeding 99°. From this time all pus-formation appeared gradually to cease; she made flesh, and left the building in excellent health.

## TRIPLICANE DISPENSARY, MADRAS.

### EXTRACT FROM THE ANNUAL REPORT OF OUT-PATIENTS FOR THE YEAR 1871.

By Honorary Surgeon MOODEEN SHERIFF.

(*Continued from page* 560, *vol.* i. 1874.)

#### III. Medical Cases.

*Case* 12.—*Hepatitis existing for a long time without the knowledge of the patient—Termination in an Abscess—Complication with Diabetes Mellitus—Recovery by Resolution.*

On October 27, 1871, at about six o'clock in the evening, Mr. David G., aged 39, sub-conductor in the Army Clothing Board, came to the Dispensary, complaining of "wind in the stomach," and attributing the same to the use of a draught of arrack mixed with ginger and sugar. He complained also of nausea and of constipation of bowels for two days, and wished to have a draught to "expel the wind," and a pill to produce a motion. On examination, however, at the time of his application, I found him suffering from chronic hepatitis in its advanced stage, with an apprehension of its termination in an abscess, and the stomach was only slightly and secondarily affected from its vicinity to the left lobe of the liver, which was chiefly the seat of the disease. The symptoms were as follows:—Fulness in the epigastrium on the right side of the mesial line, with severe pain on pressure; rigidity of the right abdominal muscles, particularly the rectus, which prevents the palpation of the liver near the margin of the ribs, where the organ is distinctly enlarged; sharp pain in the epigastrium as well as in the right hypochondrium on deep inspiration; enlargement of the right lobe across the middle of the hypochondrium to the extent of an inch and a half; increased dulness about an inch beyond the upper boundary of the hepatic region; some uneasiness on lying on either side; pulse 100, small, not compressible; respirations 24; tongue brownish-white in the centre; skin dry; bowels costive; urine said to be very scanty and high coloured; there was no cough or dyspnœa, nor pain in either of the shoulders or in the back; the conjunctivæ were clear. Mr. G. is a thin and spare man, very intemperate in his habits, permanently subject to a tremor in the hands, and very nervous and weak. He was never seriously ill on any occasion during the last few years, but suffered occasionally from dyspepsia, gastralgia, congestion of the liver, etc. The liquor he is generally used to is the common country arrack, which he takes often mixed with ginger and sugar, as he did yesterday. The draught he took yesterday might have produced some irritation in the stomach and aggravated the hepatic inflammation; but the latter, I believe now, as I did yesterday, is of long duration, though he was not aware of it. The patient was astonished to hear that his liver was affected, and that there was fear of suppuration; and expressed doubts on this point, until he was convinced by the measurement of the side, and by the pain all over the hepatic region on deep inspiration. I admitted him at once as an out-patient, and insisted upon his not leaving his house upon any business. He was advised to have twelve or fifteen leeches applied to the most painful part, and to take the following pill at bedtime:—℞. Ext. colocynth. co. gr. vj., pil. hydrarg. gr. iv., ext. hyoscyami gr. ij.—m.; ft. pil. ij.

This morning (28th) he looks much depressed and uneasy in mind, and has passed a restless night. He says that since his attention has been drawn to the disease, he feels the side heavy and uneasy, and there is more or less pain or tenderness in it on every movement of the body. The pills have not acted as yet, and the leeches were not applied on account of some difficulty in procuring them in the night. But the painful parts have been fomented freely two or three times, and with some relief on each occasion. He complains of nausea and loss of appetite. Pulse 104; respirations 24; skin dry; tongue foul, and brownish-white in the centre. Pulv. jalapæ co. ʒ j. immediately. Fomentation and sinapism over the hepatic region. Diet: Milk, bread, arrowroot-jelly, tea, etc. Evening: The medicine has opened his bowels freely three times; motions dark and offensive. He feels very easy, and there is no heaviness in the side, nor much pain in the epigastrium on pressure. No nausea, but feels thirsty. Is inclining to be feverish at present. Pulse 108; skin warm; tongue cleaner, but slightly dry. ℞. Liq. ammoniæ acetatis ʒ iij., spt. æther nitrici ʒ ss., mag. sulphat. ʒ ss., ammon.-hydrochlor. gr. x., tinct. hyoscyami ʒ ss., mist. camphoræ ℥j.—m.; ft. haust.; every third hour. Continue sinapism and fomentations.

October 29.—Appears worse this morning. The right abdominal muscles are more rigid than before, and there is constant pain in the right hypochondrium, with an occasional shooting towards the right shoulder. He has fever on him at present; feels very sick in the stomach; and has been vomiting in the morning two or three times, the matter rejected being chiefly bilious. Pulse 98 in the recumbent posture; skin hot on the trunk and almost cool on the extremities; tongue dry, and yellowish-brown in the centre. Dr. Duff saw the patient with me this morning, and prescribed the following:—No. 1: ℞. Ammon. sesquicarb. ʒ iv., acid. hydrocyanic. dil. ♏ xl., tinct. cardamomi co. ʒ vj., tinct. opii ʒ j., aquæ ℥vj.—m.; ft. mist. Sig.—A dessert-spoonful with the same quantity of No. 2, to be taken in a state of effervescence. No. 2: ℞. Acid. citric. ʒ iij., aqua ℥vj.—m.; ft. mist. Sig.—A dessert-spoonful to be taken as above three or four times a day. Mustard poultice repeatedly. Diet: Beef-tea, chicken broth, milk.

30th.—Vomited only once since last report, and does not complain of nausea. There is more fulness in the epigastrium, but less pain all over the hepatic region, and also no shooting towards the right shoulder. The fever continues on him, and he felt chilly two or three times during the night. He is not able to rest on either side, back, or in any other position except in a semi-recumbent posture on an easy chair. Bowels have moved since last report; urine scanty, and not kept for examination; pulse 94, and softer; skin hot on the trunk and cool on the extremities; tongue brownish-white in the centre. Continue medicine and diet. To have a blister all over the hepatic region.

November 1.—Mr. G. sent one of his friends (Mr. S.) to the Dispensary early this morning to inform me that he is suffering repeatedly from shiverings. I went over immediately, and found him just recovering from a fit of rigors. He was still shivering slightly, feeling cold and chilly, and covering himself with a blanket. There was no fever, and the extremities were cold, and he felt much relieved from pain. The fulness in the epigastrium is very prominent between the mesial line and the margin of the right ribs, and the blister is well risen over it. Omit effervescing draught. Dress the blister with sabine ointment. ℞. Acid. nitro-muriat. dil. ʒ ij., quiniæ sulphat. gr. xij., tinct. gentian. co. ʒ vj., syrup. aurantii ʒ vj., aquæ ʒvj.—m.; ft. mist. A tablespoonful every third hour. Diet: Liebig's extract of meat, egg-flip, port wine.

2nd.—Passed a sleepless night; has had no rigor, chilliness, or fever since last report; complains of uneasiness and slight throbbing pain in the epigastrium; feels sick in the stomach, and is unable to lie on either side or back, and therefore sits up for the most part on an easy chair. Is not able to take much nourishment, for he says he feels more uneasy when the stomach is distended. The fulness in the epigastrium is more prominent than yesterday, and across this prominence the right side is about two inches and a quarter larger than the opposite one. Pulse 102 and small; respirations 30; skin warm on the trunk and cold and moist on the extremities; tongue cleaner and slightly yellowish-white in the centre; bowels moved once, motion yellowish-brown; urine very scanty and high coloured. Continue mixture; blister to be kept open; continue diet. ℞. chloral. hydrat. ℈ij., aquæ cinnamon. ʒij.—m.; ft. haust. Half at bedtime and the other half to be repeated if necessary.

3rd.—Did not sleep last night. He took only half of the draught, which he says made him feel "queer" in the head, and he therefore did not take the remaining half. He is in no respect worse than yesterday morning. Bowels moved freely once; urine is said to have been passed two or three times, and in larger quantity, during the night, but was not kept for examination. Blister is discharging well. Continue mixture; continue chloral at bedtime; continue diet.

4th.—He says he has passed almost a restless night, partly from not inclining to sleep and partly from frequent micturition, and his urine is also more copious than ever in his life. He states also that he feels more easy and lighter in the side and in "the stomach" (meaning the epigastrium) than on any day since he had been placed on the sick report. The prominence in the epigastrium is surprisingly less, and there is little or no pain in the hepatic region on pressure or deep inspiration. The rigidity of abdominal muscles is also much less, and there is a decrease of about an inch in the measurement of the side. He can lie on either side or back, and move about his body without pain or uneasiness. In fact, he appears half well, but very weak, or, to use his own expression, "he feels as weak as a cat." He took one dose of the chloral at bedtime, but with the same bad effect as on the preceding night. Pulse about 92, soft and very compressible; skin cold on the extremities and dry on the trunk; tongue much cleaner in the centre and red at the edges and tip; bowels not open since last report; urine very copious yesterday and last night, particularly during the latter. I took the urine with me to the Dispensary, and examined it with the following result:—Quantity, 104 ounces; colour, whey, very frothy; reaction, slightly acid; specific gravity, 1026; sediment, very slight after a few hours' rest; sugar, sufficient to be easily detected by chemical tests; albumen, none; microscopical appearance, nothing abnormal. Continue mixture, and omit chloral at bedtime. As the diet which is in use now is chiefly animal, he is to continue the same. Is forbidden to take saccharine or farinaceous substances of any kind.

5th.—I found him this morning sleeping on the left side comfortably on a cot. He thinks that he is well except for the weakness, and he passed a good night. There is no fulness whatever in the epigastrium, nor uneasiness except on the deepest inspiration. Urine ninety-six ounces during the day and night, specific gravity 1024, and saccharine distinctly; pulse 88 and soft; respirations 30; tongue clean; bowels moved once, motion scanty and hard. Has a good appetite. Complains of pain in the blister from the sabine ointment. Continue mixture and diet.

6th.—The right side is only one inch larger than the opposite one. There is neither fulness nor pain in the epigastrium, but he feels still some uneasiness or dull pain in the right hypochondrium on very deep inspiration. The muscles on the right side of the abdomen are nearly as soft as those on the other. The urine continues to be excessive in quantity, measuring about ninety ounces during the last twenty-four hours; specific gravity 1018, indistinctly saccharine on chemical tests. Continue mixture and diet. To have a blister over the right hypochondrium.

7th.—Urine only forty-eight ounces in twenty-four hours, and it is said to have been scalding, probably from the effects of the blister; its specific gravity is 1015, and it is not saccharine. No pain in the epigastrium on the deepest inspiration. Blister rose well and is discharging. Continue mixture and diet.

9th.—He may now be considered as well. The right side is only half an inch larger than the left. Urine healthy in quantity and quality; pulse 80; respirations 20; skin acting; bowels regular, with healthy evacuations. He sleeps well and has a good appetite. Continue mixture. Heal up the blister. Diet: Bread, etc., as in health. Is directed to go out for a walk occasionally when there is no rain.

12th.—Omit mixture. It was my intention to send Mr. G. on leave for a change of air and climate to Bangalore, with a view to recruit well his health before returning to duty, but he says he is not in a pecuniary condition to undertake the smallest journey. He is therefore directed to remain on sick report as convalescent until the end of this month, and to return to his business on the first of the next.

December 4.—Mr. G. has improved a great deal since last report, and looks a fresh man. He says he feels more healthy and strong than he did for many months before his late illness. His right side is about half an inch permanently larger than the other, and, with this exception, the liver is healthy. The urine continues to be healthy also. His bowels were rather loose from indigestion on the 1st instant, and he therefore did not return to duty as intended; he returns to-day. Discharged.

*Remarks.*

In this country inflammation of the liver is often so insidious that it does not excite any suspicion of its existence in the mind of the patient until it is brought to light from some accidental occurrence. The above is exactly a case of this kind. When Mr. G. presented himself at the Dispensary on October 27 he had not the least idea of the state in which his liver was, and he thought he was quite well except a "wind in the stomach," owing to the use of arrack with ginger, etc., as mentioned in the case. He was much surprised to hear that his liver was affected, and did not believe it until it was proved by pain all over the hepatic region on deep inspiration, and by the enlargement of the right side to the extent of an inch and a half. In addition to these there were two other very important diagnostic symptoms—viz., the fulness or prominence in the epigastrium on the right side of the mesial line, and the rigidity of the right rectus muscle. From these symptoms there was no doubt in my mind that the patient was labouring under chronic hepatitis, which was nearly terminating in an abscess, and which must have been lingering upon him for weeks or months—yet he was not aware of its existence. I imparted my view of his case to Mr. G., and insisted upon his reporting sick and confining himself to the house. About three days after admission he suffered repeatedly from severe rigors, with a sudden abatement in all the prominent symptoms, and with an increase of about three-quarters of an inch in the enlargement of the side, which indicated the formation of an abscess, as already anticipated. The abscess was in the left lobe of the liver, for, in addition to several other symptoms showing that part to be more affected than any other, the prominence in the epigastrium was simultaneous with the occurrence of rigors.

As a blister was already applied over the hepatic region before the abscess was formed, I kept it open afterwards, and began with the use of nitro-muriatic acid with small doses of quinine, and gave the patient more nourishing diet than before. Though this is the best treatment, according to my own experience in hepatic abscesses under ordinary circumstances and before they are quite fit for evacuation, yet I could not attribute to it alone the great rapidity with which the patient recovered in this case. It is chiefly and directly attributable to the temporary diabetes mellitus which occurred two days after the formation of the abscess, and continued for four or five days, at the end of which period the patient was almost well. Though a disease itself, the copious secretion of urine seems to have acted as a drain on the system, and thus promoted the absorption of the matter in the liver. I am not aware of any other recorded case of hepatic abscess or hepatitis

which has been complicated by diabetes mellitus, and this is, therefore, the most interesting feature in the case under consideration. It requires a few words by way of explanation. On the morning of November 4, the change for the better being very great and sudden, I made inquiry as to the cause of it, and found nothing to account for it satisfactorily, except the secretion of urine, which was surprisingly great during the previous twenty-four hours. Its quantity was 104 ounces, while a day before that period it scarcely amounted to eight or ten in the same space of time. Besides the copiousness the urine was of a whey colour, with a great deal of froth, and a specific gravity of 1026, and it contained a sufficient quantity of sugar to be easily and readily detected by Moore's and Trommer's tests. It continued to be saccharine only four or five days, and then it lost this character as suddenly as it assumed it. Its quantity, too, was reduced to its average in health as soon as the sugar disappeared.

Now, what is the cause of the sudden diabetic condition of urine in this case? As far as I can see and think of, there was nothing which could reasonably be assigned as a cause of this condition, except the use of chloral hydrate. A draught containing forty grains of this medicine was prescribed for the first time on the night of November 2, half of which was to be taken at bedtime to procure sleep, and the other half to be repeated if necessary. Only one dose was used by the patient, which did not produce the desired effect, but increased the secretion of urine during the night. On the following morning the urine was said to have been voided more frequently and in larger quantity, but was not kept for inspection. On the night of the 3rd he took the remaining dose of the medicine, and with the same failure with regard to sleep as in the preceding night, but the urine was found excessive in quantity, saccharine, etc., as explained in the case. The above circumstances show a direct connexion between the use of chloral hydrate and the diabetes mellitus in this case, and I am therefore inclined to look upon them in the light of cause and effect respectively. Chloral is a very active medicine lately brought into use, and its action upon the system under many circumstances is not yet known. It is possible that it sometimes excites the liver to secrete more sugar or glycogen than natural, but in what way and under what circumstances I cannot say. A single case like the one under discussion is not enough from which to form an opinion on this point. Chloral is a very good hypnotic medicine, but its failure in this case was owing to the smallness of the dose (one scruple). Had the dose been repeated as directed, I have no doubt that it would have produced the desired effect.

The secretion of sugar in so large a quantity as to render the urine diabetic while the liver was already diseased is another unusual thing in this case requiring explanation. As far as my experience goes, in ordinary cases of hepatic abscess and hepatitis, the liver often continues to secrete bile, and occasionally to such an extent that it is brought up in large quantities by frequent vomiting. When it is so, it is not unreasonable to think that the organ, under the same circumstances, is also capable of keeping up the secretion of glycogen or sugar, and of secreting the same sometimes in a larger quantity so as to produce a temporary diabetes.

The lungs were quite healthy during the late illness of the patient, as well as previous and subsequent to that period, and the diabetes in this case, therefore, was not owing to any deficient pulmonary action, but solely to excess of hepatic function.

(*To be continued.*)

Examination of the Urine for Life Assurance.—Prof. Austin Flint, jun., has recently published an excellent little pamphlet, entitled "Directions for the Examination of Urine of Applicants for Life Insurance." While we can hardly agree with those who advocate the practice of examining the urine of every applicant for life assurance, we certainly think that the companies would avoid not a few bad risks were they to insist upon such examination in the case of all applicants who have reached their fiftieth, or perhaps even their forty-fifth year. If we are correctly informed, it has been for some time the custom with one of the New England companies to require this examination in quite a large proportion of the applicants for policies. It would be very interesting to know how successful they have been in carrying out the plan, and what have been the real difficulties in the way of its accomplishment.—*Med. Record*, September 15.


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# Medical Times and Gazette.

SATURDAY, DECEMBER 5, 1874.


## DOCTORS AND DRUGGISTS.

In passing through many of the humbler streets of London and other large towns, a professional observer cannot fail to be struck with the very faint and often entirely imperceptible line which separates medical practitioners from druggists. The glaring lamp fixed in the most commanding situation; the most elaborate description in sign-board print of its professional owner; the ostentatious display of diplomas, and the mysterious exhibition of bottled pathological specimens,—all show that in many instances the medical man has been impelled by force of circumstances to lay aside the dignity of his profession and assume the position of a tradesman. For the existence of such a state of matters, unfortunate though it may be, many valid excuses can be adduced by those who practise in open surgeries. The poverty of the mass of the people amongst whom they practise, their incapability of appreciating unostentatious merit, and the statement that but for open surgeries chemists and druggists would, incapable as they are, be called upon to do the whole practice of such neighbourhoods, are all excuses for the renouncement of professional dignity. Undoubtedly each of these arguments is to some extent applicable to the case, but at the same time there are frequently other reasons which influence medical men in laying themselves out more as dealers in drugs than as dispensers of medical advice and assistance. In the first place, both on account of their lower marketable value and of the greater rapidity with which they form around a man, these practices are assumed with less difficulty than are the higher social positions in the medical profession. They generally carry along with them the recommendation of ready money; and though severally the sums secured are small, the aggregate reaches in many instances to no inconsiderable amount. There can be no doubt that considerations like these often influence men in determining their temporary or permanent devotion to a line of practice which at first must seem to all medical men undignified and, in many respects, prejudicial to the high character of the profession. But nothing is more antagonistic

to dignity than the *res angusta;* and young men of great merit, disinclined to country practice, and unable to command sufficient capital to commence work in a higher sphere, are often driven to the assumption of a class of practice which they inwardly dislike, and the greatest drawback of which is, that it combines the profession of a doctor with the trade of a chemist. To such an one it may be held out as an extra inducement, perhaps, that he can even outvie the chemist by establishing a provident dispensary, where he can dispose of medicines at sixpence a bottle, and superintend the process of parturition at the rate of ten shillings a presentation, paid beforehand by subscriptions. In the medical profession such practices are constantly disposed of as a stepping-stone to higher things, and no doubt many men make large sums of money by the administration of such institutions, while others tide over their early difficulties by the incessant plodding and undignified counter practice of an East-end open surgery. Nor is the system without its analogies in higher practice. The great mass of town practitioners dispensing from private surgeries receive little, if any, more remuneration for advice and medicine than would be paid for the medicine alone to a respectable chemist. There can be no doubt that the existence of such a state of matters in the medical profession shows a "levelling-down" towards the position of the simple chemist which requires to be guarded against. The caution required should be all the greater when it is remembered that for many years chemists have been "levelling up" towards the profession of medicine. The apothecary characteristic of Shakespeare's time, who stood

> "In tattered weeds; with overwhelming brows,
> Culling of simples: meagre were his looks;
> Sharp misery had ground him to the bones,"—

had, in the time of Pope, come to be represented by

> "Modern 'pothecaries taught the art
> By doctors' rules to play the doctor's part,"—

who,

> "Bold in the practice of mistaken rules,
> Prescribe, dispense, and call their masters fools."

And from that time to this the great mass of apothecaries,(a) and chemists who now represent them, have either pursued the plan satirised by Pope, or have habitually supplemented a mock examination into signs and symptoms by the exhibition of a weather-beaten formula of the kind designated refrigerant in exchange for the silver coin of the credulous patient. And if in the poet Butler's time they were content to

> "Cure warts and corns with application
> Of med'cines to the imagination,"

they now crowd windows and counters with patent medicines in an endless variety, which fills one with astonishment that people should so freely pay for substances so inert or that so few fatal accidents are traceable to patent drugs. Or, perhaps, the enterprising young chemist, gifted with a higher education than his predecessors, gets possession of a Greek compound, a Greek and Latin conglomeration, or still better a term in organic chemistry, and, enveloped in a pictorial or printed wrapper, his new combination passes muster with the drug-drinking public as equivalent to a shilling and a fraction of unimpeachable coin. Even into the domain of surgery the modern druggist is not backward to enter, and in the region of obstetrics he often takes a lucrative though rather surreptitious place between the midwife and the accoucheur.

These encroachments are no doubt matters of importance to the lower orders, socially speaking, of the medical profession, especially as they are daily progressing almost entirely unchecked. And when chemists and druggists are remonstrated with on account of the grievance, the excuse which they adduce has a certain amount of reason on its side. They naturally say to doctors who keep open surgeries, "You do our work, you take the bread from our mouths, and consequently we must encroach upon you." And if the competition is to be carried to its utmost extent between the two parties; if it is to be a case of "pull doctor, pull druggist," one of two things must inevitably happen. The method in which trade is carried on in low thoroughfares shows that he who can manifest most display and bring himself forward with the greatest ostentation will command the largest patronage. Consequently, the druggist, being free from all trammels of professional restraint, will win the day. If not, the second and more unfortunate alternative must ensue. The commercial doctor, carried along by the excitement of competition and the desire for gain, must throw aside the reserve and dignity which have hitherto been regarded as the attributes of all classes of medical practitioners except the itinerant destroyer of non-existent tapeworms and the ectrotic suppressor of contagious diseases. The taint will advance into higher circles. Men dispensing from private surgeries will extend their not uncommon practice of retailing drugs, and the good name of the medical profession in large towns will run the risk of being defamed by that familiarity which proverbially breeds contempt. Undoubtedly men of all grades in the profession of medicine must strive to secure a competency from the practice of that profession, and their method of doing so must in all cases be modified by their "environments." But, at the same time, medical men must endeavour to remember that by social position, by education, and by admission into a learned profession they are superior to dealers in drugs, and must guard against the infliction of that injury to the whole body to which they belong which might readily accrue from introducing a purely and ostentatiously commercial element into the exercise of a dignified and honourable profession.

(a) The apothecary of the present century must not be confounded with the apothecary of olden times. Since the passing of the Apothecaries Act, 1815, the full apothecary has been a qualified medical practitioner.

## THE ETIOLOGY OF DIABETES MELLITUS.

In the *Berliner Klinische Wochenschrift* of November 2, Dr. Schmitz, of Neuenahr, points out that hereditary predisposition has probably more to do with the development of diabetes than almost anything else. Mental anxiety, severe pain, and injuries of various kinds, whether they affect the nervous system or not, seem to be powerless to set up the disease without this inherited tendency. Of 104 patients observed and treated by the author since 1868, and in whom the family history was most carefully inquired into, twenty-two were found to have had diabetic parents or relations; and if those cases had been included in the list in which the patients "believed" that other members of their family had been similarly affected, but were not absolutely certain of the fact, the numbers would have been much higher. Dr. Schmitz remarks with truth how little many persons know of their relatives' illnesses, and quotes Seegen's observation that many cases of diabetes are probably never recognised. Of the twenty-two patients in whom the disease was hereditary, the grandfather of one was diabetic, and the father and grandfather of another. In six cases the father, and in six others the mother and sisters were diabetic, and in eight the sisters only. Dr. Schmitz, however, only looks on hereditariness as a predisposing cause, and he brings forward several interesting cases to show how the tendency may remain latent for years until some sudden mental trouble or bodily injury calls it, as it were, into life.

One patient, Herr F., fifty-seven years of age, had lost his father from diabetes, but all the other members of his family were healthy. His own health had previously been excellent, when one day a favourite daughter committed suicide in a fit of melancholia. He was almost immediately seized with dyspepsia and intestinal catarrh, and had an attack of jaundice, from which he partially recovered, but soon began to lose flesh and strength, and thirst

and polyuria set in. A month later his urine contained 5 per cent. of sugar, and he soon exhibited all the symptoms of confirmed diabetes. His son Franz, twenty-six years old, enjoyed excellent health until, in September, 1871, he fell from his horse, and severely fractured his left leg. The accident was followed by agonising pains in the limb during the first few days which succeeded it, and a fortnight afterwards the subjective phenomena of diabetes set in, and on examination his urine was found to contain 6 per cent. of sugar. Absolute diet, alkalies, and opium speedily improved his condition, but in June, 1872, there was still about 1 per cent. of sugar present. The remarkable feature of these two cases is, that although the father of one patient, and the grandfather and the father of the other, had both been diabetic, they both remained in good health until a severe nervous shock brought out the latent disease. The suicide of the daughter in a fit of insanity is also worthy of note, because it seems to favour the relation between mental affections and diabetes.

Another interesting example of diabetes following mental anxiety in a patient hereditarily predisposed is given by Dr. Schmitz. A man, aged twenty-eight, always healthy until his present illness, had lost an aunt (mother's sister), a sister, and a niece of diabetes, and his brother was a sufferer from the same disease when he himself came under observation. His father died of typhus; his mother is still alive, and suffers from rheumatic gout. For the last seven years he has worked excessively hard in his father's business without taking proper rest or holiday, and has lately been much worried by unsuccessful commercial transactions. Lately he has developed all the symptoms of diabetes, and his urine contains 1·5 per cent. of sugar.

A fourth case which the author brings forward in favour of his theory of some severe mental or bodily injury being necessary for the development of an hereditary diabetic taint, seems to us less satisfactory on that point than the others. A woman, who had enjoyed good general health with the exception of occasional attacks of diarrhœa up to her fiftieth year, was attacked with violent prurigo pudendorum in the autumn of 1871, and the irritation became so frightfully severe that for eight months she scarcely slept at all, and was, according to her own account, almost driven out of her mind by it.

In the spring of 1872 she had all the symptoms of diabetes, and sugar was found in her urine; but as the summer came on the prurigo diminished, and the diabetic symptoms became coincidently less pronounced. Under treatment with opium and valerian the patient improved, and both prurigo and diabetes became remarkably reduced. There was always, however, an increase of sugar in the urine with increase of the prurigo. It should be mentioned that the patient's mother and four sisters were all diabetic. Dr. Schmitz explains the case as follows:—The first onset of the disease was due to the mental prostration and shock caused by the prurigo pudendorum, and each subsequent exacerbation of the diabetic symptoms was likewise due to the nervous condition (*Nervosität*) set up by a fresh outbreak of prurigo. Dr. Schmitz therefore makes the diabetes secondary to the prurigo, while we should rather look on the prurigo as secondary to the diabetes. Prurigo pudendorum is a common accompaniment of that disease in women, and to our own knowledge it is the symptom which often leads to the first examination of the urine and the discovery of sugar in it; and it is to the presence of this sugar, and the irritation which it excites by its contact with the genitals during and after the patient's frequent acts of micturition, that the prurigo is due. The simultaneous increase and diminution of this distressing symptom and of the percentage of sugar in the urine is explained equally well on this theory as on that of Dr. Schmitz. The hereditary predisposition is clear enough in this case, but not the determining cause.

## ST. ANDREWS UNIVERSITY.

The General Council of this University met on November 27 in the Hall of the United Colleges. The principal business before the meeting related to the proposed amendment of the Scottish Universities Act. The speakers expressed the conviction that the unanimous intention of the representatives of the four Universities was to strengthen the hands of the councils and improve the condition of the different Universities. The proposal to have additional assessors for the Universities of Glasgow and Aberdeen was shown to have been approved of by their respective Councils, and agreed to. It has been agreed also that a new section should be added to the draft Bill, providing that all measures involving internal improvements should be submitted to the Councils by the University Courts.

Special reference was at the meeting of Council made to the clause in the draft Bill which directly relates to St. Andrews University. It proposes that three additional members should sit in the University Court—namely, the Principal of the United Colleges, and two others chosen by the Council. Professor Flint, in referring to the Committee's report to the Council, approved of the proposal to increase the numbers of the University Court, but expressed a certain amount of dubiety regarding the construction of a draft Bill for the amendment of the Universities Act. Such a course would lead Government to understand that the constitution of the Scottish Universities would work satisfactorily if its defects were patched up by amendments. He advocated the removal of the patronage of professorships from the University Courts and the construction of a single elective body for all the four Universities, composed of representatives from the House of Lords, the House of Commons, and the learned professions. A motion was carried, reappointing the Committee of Inspection, and requesting them to endeavour to secure the appointment of a Royal Commission to investigate and report upon the constitution of the Scottish Universities previous to any legislation on the subject. Aberdeen University favours the same course.

The Council subsequently considered the project of extending the advantages of the teaching of the University to Dundee. There appeared to be considerable diversity of opinion upon the subject, and a want of maturity in the opinions and ideas held by the supporters of the scheme and others. There can be little doubt that if St. Andrews does not endeavour to do its duty by Dundee, in the way of supplying such general and technical teaching as that large and increasing centre of industry may require, the University may miss an opportunity of advancing its own welfare which may never recur. The other Universities in Scotland are already and of necessity identified with large towns, and participate more or less in the progress which all large centres of the population manifest in social and political evolution. But St. Andrews is exceptionally retired, and to all appearance ought to take advantage of its close proximity to Dundee to secure for itself an advantage which it alone does not possess. The subject has been much agitated in Dundee, and proposals have emanated from leading men to the University of St. Andrews. They ask for systematic courses of lectures, and now intimate that the whole matter is to be taken up by the Town Council of Dundee, with the certain prospect that the people will take decided action in the matter.

Professor Campbell advocated the establishment of a school of science in Dundee in connexion with St. Andrews University, and supported the establishment of classes to be superintended by lecturers recognised by the University. Mr. Patrick Anderson was in favour of a Dundee College to be affiliated with St. Andrews University. On both sides "serious consideration" has been determined on, and there

is no doubt that, if the St. Andrews University is mindful of its own interests, provision will be made in Dundee for the prosecution of general and scientific studies under teachers recognised by the University.

## THE WEEK.

### TOPICS OF THE DAY.

The following very important document has just been issued by the Board of Medical Studies, Cambridge. After recommending various minor alterations in the plan for the examination of students in medicine, the Board draw the attention of the University to the subject of State Medicine, and advise the institution of an examination specially designed for gentlemen intending to holding public appointments as officers of health. They say in their report that the importance of State Medicine was recognised in 1868, when it was introduced as an independent subject in the exercises for the degree of M.D., and again in 1870, when it was the first matter which engaged the attention of the Medical Questions Syndicate. The consideration of the subject was arrested, however, by the introduction into Parliament of the Government Bill for medical reform. But what was then foreseen by the Syndicate has since come to pass, and the appointment of officers of health is being made throughout the country. Under these circumstances, the attention of the Board has been called to the manifest public advantage that would result if means were provided by the University (or by the English universities jointly) for testing and certifying the fitness of candidates for that office, as Dublin and Edinburgh have already done. The Board have considered the question in its largest scope—viz., as to the expediency of the University establishing examinations and granting certificates or diplomas in State Medicine, or in either or both those branches of it which are comprised in the functions of officers of health or public analysts. The recommendation of the Board, as will be seen, is limited in one respect and comprehensive in another. To make it more thoroughly understood, the outline of a scheme is added, by which it might be carried out. The Board are of opinion that it is expedient for the University to establish examinations and grant certificates of competency in so much of State Medicine as is comprised in the functions of officers of health. They recommend that the examinations and certificates should, for the present at least, be limited to these departments of the large subject of State Medicine. They believe that an actual public want would thus be supplied more readily and more effectually than would be accomplished by a larger and more ambitious scheme; and the more manageable plan when fairly in operation could, if needful, be easily extended at any future time, so as to comprehend the whole of State Medicine. They recommend that the examinations should not be confined to members of the University alone, but that any legally qualified (registered) medical practitioner should be admissible as a candidate, provided he be twenty-four years of age at the least. The certificate given to successful candidates should testify only to their competent knowledge of what is required for the duties of an officer of health; and that the following be the subjects of examination:—1. Physics and Chemistry: the principles of chemistry and methods of analysis with especial reference to analyses (microscopical as well as chemical) of air and water; the laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water supply, drainage, construction of dwellings, and sanitary engineering in general. 2. Laws relating to Public Health. 3. Sanitary statistics. 4. Origin, propagation, pathology, and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water supply and disposal of sewage and refuse; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate. They further recommend that the examination be practical, oral, and in writing; that it be in two parts, to be passed separately or together, at the option of the candidate; that the first part be in section 1 (physics and chemistry), the second part in the subjects of sections 2, 3, and 4; that the fee for admission to each part be four guineas; that the examination (in both parts) be held at Cambridge once in the year, or twice if the number of candidates should render it expedient; that the first examination be held in October, 1875; that the examiners be four in number, and be appointed from year to year or biennially. The Board would suggest that if a scheme like this were adopted by the University, and a Syndicate were charged to carry it into effect, authority should be given to the Syndicate to introduce any modifications in the details which experience or further consideration might show to be advisable. The Board desire to add that it may be deserving of consideration at some future time whether other bodies should not be invited to co-operate with the University in a measure of public utility such as is here proposed. The Vice-Chancellor invites a discussion of the report on Thursday next.

It is apparent that some pressure must be put upon the Clerkenwell parish authorities to compel them to exercise more vigilance in respect to providing the parish with a mortuary. It is said that the site upon which the old mortuary stood has been required for the purposes of the London School Board, and the parish authorities have not been able to procure a site for another. This occurred some time ago. But if proper care and diligence had been bestowed upon the matter, another site could surely have been found; it can only be a question of price. A mortuary is an indispensable parish requisite, and should at once be provided. The want of such a building in the parish was the subject of a complaint by a poor woman last week to the Clerkenwell police magistrate. Her statement was that the authorities would not remove the body of a man, who had died some days previously of bronchitis, from a room in her house ten feet long by nine feet broad, in which the man's wife and daughter (a girl of sixteen years of age) had to sleep, and in which three other children had to take their meals. On behalf of the parish authorities, it was stated they could not remove the body because the parish of Clerkenwell had no mortuary, but they had placed the corpse in a shell, and carefully screwed it down, so that there should be no smell. Such a state of things is most disgraceful to the parish authorities. It is not easy to get the poor to recognise that health and decency forbid that the dead and the living should be occupying the same room; and it is scandalous that when, in cases like this, the removal of a corpse is asked for, the parish authorities should be unable to comply with the request.

Our contemporary the *Journal of the Society of Arts* informs us that M. Mège Mouriès, after analysing butter, has succeeded in making it synthetically; and that this imitation butter, recognised by the Conseil d'Hygiène as indistinguishable from real butter, is finding its way into the Paris markets at half the present price of real butter. It may be observed that it is not stated whether the laboratory butter *sells* well, but we should recommend that the whole statement be taken, as butter must be, *cum grano salis*.

We are glad to attest the fact that the Charity Organisation Society is well supported (as it deserves to be) by the medical profession, not only by contributions to its funds, but by public advocacy on its behalf, by many of our brethren. The experience of Sir Cordy Burrows on the abuse of medical charity is, no doubt, the experience of a large number of our

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profession. Sir Cordy, speaking at the third annual meeting of the Society for Brighton, Hove, and Preston, on the 27th ult., stated, that as a medical man of long standing and experience he did not hesitate to say that there were few medical charities which were not abused. We should hope that the Society's well-organised system of investigation for the detection of these and like abuses will prove a corrective on a scale which will have the effect of reducing them to a very appreciable extent.

The mortality in the metropolis last week was greater than it has been since December, 1873. The death-rate was 30 per 1000 per annum. This increase arose chiefly in deaths referred to diseases of the respiratory organs and in those of adults aged forty and upwards. There were 30 fatal cases of typhoid and 97 of scarlet fever, against 124 in the previous week. Of the latter 35 occurred in the East, 33 in the South, and 19 in the North groups of districts; 10 were returned in Hackney sub-district. The Asylum district hospitals contained 260 scarlet fever patients on the 28th ultimo.

At a meeting held at Glasgow on the 30th ult., presided over by the Lord Provost, and attended by several influential persons, it was resolved to establish a hospital for incurables in Glasgow, and another in Edinburgh, the one for the West and the other for the East of Scotland, to be managed by local committees, which are, however, to co-operate for the establishment of a national association for founding district institutions for incurables in other parts of the country.

An urban mortality of 40 per 1000 has, at length, but not till after much perseverance by men of science, aroused the civic authorities of Berlin to improve the sanitary condition of the city. They have adopted a system of main drainage, and are carrying it out with considerable energy. The surface-distributing system of the sewage has, it appears, been so successful and profitable at Stettin that the municipality has purchased some estates in the Mark for the disposal of the sewage over them. This success of the sewage farms on the Continent is satisfactory.

The *North China Herald* notes the fact that the Chinese and Japanese have been making purchases of medical stores and surgical materials. The former, however, have confined themselves to securing a few bullet-probes and tourniquets, and evince a very slight appreciation of the advantages of foreign instruments and medicaments. On the other hand, they inquire with considerable keenness after detonating substances. The Japanese have bought extensively of everything they could conceive likely to be useful to their wounded or sick, and are said to be taking steps to organise a staff which will be capable of using these provisions intelligently.

The Council of Marlborough College have recently decided to erect a laboratory and science lecture-room. The ground-floor of the building will house the museum of the Marlborough College Natural History Society.

The number of students who have matriculated in the University of Edinburgh this year is 1868, against 1738 in last winter session.

Dr. Peter Wallwork Latham has been elected Downing Professor of Medicine at Cambridge, *vice* Dr. Fisher, deceased. Dr. Latham is a native of Wigan, and the elder son of Dr. John Latham, a physician in that town. He graduated in the University of Cambridge with honours in Mathematics and in Natural Science; was a Fellow of Downing College; had distinguished himself as a worker in Medicine; and had for some years been Deputy Downing Professor of Medicine. The Professorship is worth £500 with a residence.

### NORFOLK AND NORWICH HOSPITAL.

In our issue of November 7 we gave a short account of the Report of the Board of Management of this Hospital, which had been received and adopted at the quarterly meeting held on October 24; and it will be remembered that in one of the paragraphs of that report the Board alluded to "the paper on the hygienic condition of the Hospital, read at the meeting of the British Medical Association," and stated that they hoped ere long to obtain from the medical staff "an expression of opinion on the matters contained in that paper." A week later the Board wrote to the medical staff directing their attention to the paragraph in question, and have lately received the following reply, "which they (the Board) desire to publish without delay":—

"The medical staff have taken into consideration the request contained in the note of the Board to them of the 31st ult. The staff fully recognise the vital importance of the subject referred to, and it has received, and is still receiving, their continuous and anxious consideration. But they beg respectfully to intimate their opinion that, in view of the *ex parte* and almost partisan appeals which have been made to the public in the public press, a more calm and dispassionate and scientific view of the question will be arrived at by discussing it from some other text than that referred to in the minute of the Board.

"The staff think it highly satisfactory that they are able to report that, with the exception of the three deaths from pyæmia which have followed the railway accident (and the injuries causing which were most exceptionally severe), during the past eight months only one death from erysipelas and two from secondary abscess in otherwise probably fatal disease have occurred in the Hospital.

"November 11. E. Copeman, M.D., Chairman."

It is satisfactory, of course, to be informed by the medical staff that they "fully recognise the vital importance" of such a subject as the hygienic condition of the Hospital, though we will do them the justice to say that we should think that no one entertained the slightest doubt on that point; but beyond this we do not feel able to derive much satisfaction from the communication made from the staff to the Board of Management. Dr. Beverley's paper was made public early in August; the "vital importance" of the subject of which it treats has been recognised by the public, and by the general and the medical press, as well as by the Hospital staff, and yet in November the staff, in reply to an appeal from the Board of Management, have only to say that, though "the subject has received, and is still receiving, their continuous and anxious consideration," they think that "a more calm and dispassionate and scientific view of the question will be arrived at by discussing it from some other text" than that referred to by the Board—*i.e.*, from some other text than Dr. Beverley's paper. This, we must confess, seems rather unsatisfactory, and at the same time not a little mysterious. Dr. Beverley's paper was founded on figures and statistics, which, so far as we have heard, are recognised as unanswerably correct; from what more, or otherwise, scientific "text" can the subject be discussed? And what, may we ask, have "*ex parte* and almost partisan appeals in the public press" to do with the scientific discussion of a medical question? We cannot see how they should influence it in any degree whatever.

And may we venture to inquire whether the whole staff, surgical and medical, really think it is "highly satisfactory" that there have been *only* three deaths from pyæmia, one from erysipelas, and "two from secondary abscess" in their Hospital in eight months? We can understand this being considered a *comparatively* satisfactory state of things, even when entertaining a suspicion that "secondary abscess" must be a very near, if not a blood relation of pyæmia; but that it should be reported by the staff as highly satisfactory does rather astonish us.

### THE ARMY MEDICAL DEPARTMENT.

Surgeon-General John Bent, who died at Aldershot on the 23rd ult., from general debility, was buried in the military cemetery at that station, on Friday the 27th ult., with full military honours. The following officers officiated as pall-bearers:—General Sir James Hope Grant, G.C.B.; Major-General Sir T. McMahon, C.B.; Major-General Herbert, C.B.; Major-General Shipley, C.B.; Colonel Turner, C.B., R.A.; Colonel Cooke, R.E., C.B.; and Deputy Surgeon-General Mackinnon, C.B. The present is the third vacancy which has occurred in the post of Principal Medical Officer at Aldershot within a few months, and we understand that Deputy Surgeon-General Prendergast, who has lately returned home from the West Indies, and who is now in medical charge of the Western District, will most probably obtain the appointment on promotion; Surgeon-Major Moorhead is also spoken of as the successor to the Deputy Surgeon-Generalship vacated by Dr. Prendergast.

The appointment of Head of the Statistical Branch at Whitehall-yard has not yet been filled up, and we have strong reasons for supposing that the successor to the late Dr. Barclay will not be chosen from amongst the various names put forward by our contemporaries. Surgeon-Major T. J. Tufnell, M.D., Professor of Military Surgery in the Royal College of Surgeons in Ireland, and Surgeon to the Military Prison, Dublin, is about to relinquish the latter appointment consequent upon his retirement on half-pay.

The system of station hospitals came into force in Ireland on the 1st instant, and the new arrangements are now established at nearly all military stations at home and abroad: we may expect, therefore, that ample opportunity will be afforded for thoroughly testing the merits of the innovation which has evoked such an amount of hostility from members of the Army Medical Department.

We believe that the services of Surgeon-Major Rowe on the West Coast of Africa are so highly appreciated by the colonial authorities that he has again proceeded to the Gold Coast, not in a medical capacity, but to act as Commissioner in dealing with certain of the native tribes in that part of the Protectorate.

### OUTBREAK OF DIPHTHERIA AT WOOLWICH.

As we recorded last week, a severe outbreak of diphtheria has occurred amongst the children of soldiers of the Royal Artillery at Woolwich, and the mortality has been large. The disease has attacked those families who reside in what are known as "Royal Artillery Cottages" on Woolwich-common, and is supposed to be referable to some grave defect in the sanitary arrangements of the buildings in question. These cottages are fifty in number, and are built—with the exception of a small break at the angle of the two lines—with the front of one about five feet from the rear of the adjacent one. They are each about twenty-six feet long, and about fifteen feet broad, the eaves of the roof being seven feet six inches from the ground. Each hut is divided transversely into two rooms having separate doorways, and each room has a window about three feet by four, opposite to which is the fireplace. On the side of the cottages retired from the Common, and at a short distance from them, are dust-holes and privies, one to every two cottages. They are stated to be very much overcrowded, and to afford but inefficient accommodation to their numerous occupants. Each family, as a rule, has one of the rooms we have described; and, as they may be calculated to be about twelve feet by thirteen, it is hardly to be wondered at that disease should make its appearance where so many human beings are congregated together in such a limited space. Ten fatal cases are reported to have occurred in one week; and we should imagine that the attention of the military sanitary authorities will be immediately directed to the subject, in order that steps may be taken for a wholesome reform in the arrangement of these buildings. Taking into consideration the great increase which has taken place of late years in the strength of the garrison at Woolwich, it is evident that increased accommodation should be provided for the families and children of the non-commissioned officers and men of the force, who are supposed to enjoy some privileges from being married with leave.

### THE ADMIRALTY AND THE NAVAL MEDICAL SERVICE.

Our contemporary the *Army and Navy Gazette* of last week has the following statement in reference to the anticipated improvement in the Naval Medical Service:—

"We understand that Mr. Ward Hunt, who, as we have previously stated, has before him a comprehensive scheme for the improvement of the position of naval medical officers, has not yet made his decision on the matter public, and it is therefore difficult to make more than a guess at his intentions; but we believe we may state with some degree of certainty that the age at which Inspectors-General and Deputy Inspectors are in future to retire will be uniform, and, as a matter of course, must be compulsory."

Beyond the fact that the authorities at the Admiralty have really a "comprehensive scheme" before them for the benefit of the Naval Medical Service, the foregoing extract is not very reassuring; compulsory retirement at the age of sixty-five is the rule in the Army Medical Department, both for Surgeons-General and Deputy Surgeons-General, yet even this arrangement has not been found successful in maintaining a brisk flow of promotion; moreover, it is scarcely in the upper ranks that the first great principles of reform should be commenced. We have brought this subject before the public upon several occasions, and have therefore frequently expressed our views with reference to it, and we are still of opinion that the meditated improvements, to be effectual, will have to embrace both ranks—executive as well as administrative; indeed, the former would appear to be the more important, since the object of an amended warrant must be to attract young medical men to enter the service by offering them much greater advantages than at present exist. It will be well, therefore, if the advisers of Mr. Ward Hunt endeavour to keep this fact prominently in view, for it may be confidently asserted that, unless an improved status for the naval doctor be secured at the very outset of his career, the "comprehensive scheme" to which our contemporary alludes will utterly fail in obtaining a sufficient number of recruits to meet even the bare requirements of the Naval Medical Department.

### THE HOSPITAL SATURDAY FUND.

At a meeting of the Council of the Hospital Saturday Fund, held on the 28th ult., at the central offices, Leicester-square, at which Captain Mercier presided, the distribution of the balance of this year's Hospital Saturday collection was considered; and on the motion of Mr. George Odger, seconded by Mr. Patrick Kenny, it was resolved to issue to the hospitals and dispensaries a form containing a series of questions, with the understanding that, in the event of the form not being returned by the 16th inst., the Council will assume that the institution concerned does not wish to participate in this year's distribution. The number of forms returned will, we should imagine, greatly depend upon the nature of the questions propounded. Considering that, we suppose, all the data upon which the Hospital Sunday Committee worked in effecting the distribution of their fund are available if needed, it is not clear what further information can be required to enable the Council of the Saturday Fund to apportion the sum which their efforts have realised. It will certainly not be out of place here to allude to the remarks of the Dean of Exeter, who preached last Sunday in his cathedral on behalf of the county hospital at Exeter; he remarked that in the administration of most charities there was a great deal of mismanagement, a very large portion of the subscriptions failed to reach the objects

intended, and secretaries' salaries, stationery, fees, etc., swallowed up a very large percentage of what was contributed for the relief of destitution. Further, he adduced some startling statistics showing the enormous sums wilfully lost by the working-man who would not deprive himself of the luxury of "idle Monday," and promised that if they would substitute industry for idleness they would soon have both the means and the inclination for supporting charitable institutions.

### INSUFFICIENCY OF THE VALVES OF THE FEMORAL VEIN.

Professor Friedreich has lately pointed out that the above condition is a serious one, inasmuch as it favours the development of varix and œdema of the legs, and may give rise to profuse venous hæmorrhage in operations on the upper part of the thigh. The valvular insufficiency, which is not uncommon, may be detected by rotating the thigh outwards, and laying the finger lightly on the upper part of the vein, immediately below Poupart's ligament. If the upper valves are insufficient, there may then be felt a strong whiz when the patient gives a short cough or otherwise rapidly contracts the abdominal muscles. Under the same circumstances the ear, instead of the finger, may detect a deep bruit.

### THE PRESERVATION OF MEAT.

Professor Kolbe has discovered that fresh meat rubbed with salicylic acid may be exposed to the air for a week without spoiling (*Pharmaceutical Journal*, Nov. 28). A large quantity of beef and mutton, prepared with salicylic acid, was packed closely together in a cask, and at the end of a month was examined as to its usefulness in the kitchen, and as to flavour. The greater part of the acid was removed by washing, after which the not unpleasant weak sweetish taste of the remainder could be detected only with difficulty. This favourable result has suggested to Professor Kolbe that meat may by this means be imported cheaply, and in good condition, from South America.

### THE DINNER TO DR. HARDWICKE.

The dinner to the new coroner, to be held next Thursday, promises to be a marked success. The stewards-list, which is already large, includes the names of many of the eminent representatives of medicine and of others distinguished in science, literature, and art. The dinner will take place at Willis's Rooms, King-street, St. James's. It is expected that many of the other medical coroners in England will honour the event by their presence.

### THE SUCCESSOR TO THE LATE SIR J. RANALD MARTIN.

We have been informed that Surgeon-Major Fayrer, M.D., C.S.I., of the Bengal Medical Establishment, Honorary Physician to the Queen, is to succeed the late lamented Surgeon-General Sir J. Ranald Martin, C.B., as President of the Medical Board at the India Office, for the examination of Indian officers.

### AN INSUBORDINATE NURSE.

A case involving serious insubordination and a grave dereliction of duty on the part of a workhouse nurse was reported by the Governor of the house to the Stourbridge Guardians at their last meeting. The deaths of two children were reported from the effects of a dose of diarrhœa medicine administered by a nurse without any orders from the surgeon.

### A WOMAN REGISTRAR.

The guardians of the Martley Union, Worcester, lately nominated Miss Lipscombe to be registrar of births and deaths for one of the sub-districts, and the appointment has been approved by the Registrar-General.

### TYPHOID FEVER AT BLACKBURN.

There were nine deaths from typhoid fever at Blackburn last week, against six the week before. It was estimated at the end of last week that there were about 400 cases then under treatment.

## DR. CLELAND ON THE RELATIONS OF SCIENCE TO PHILOSOPHY.

The following is a portion of an introductory lecture delivered by Professor Cleland to the students attending the classes of Anatomy and Physiology in the Queen's College, Galway, at the opening of the winter session:—

Gentlemen,—In welcoming my pupils to their studies at the commencement of a new session, I own that I feel more impressed every year with the gravity of the circumstances in which they are placed. I shall not occupy your time with moral reflections on that subject, but shall content myself with observing that, even surveying your position with the utmost seriousness, it is impossible for you to appreciate at present the consequences to yourselves in after life of the manner in which you dispose of your time in your four years of study, as you will appreciate it when the time is past, and you begin to reap the results of a well- or ill-spent college career. Four years is but a short time to learn all that you ought to know before entering on the practice of your profession, and all that you will wish that you had learned when in after life you look back on your student days. Remember that what constitutes learning in a practitioner of a scientific art is the intimacy of his acquaintance with the sciences on which his art is based. To be worthy, then, of holding a high position, you must give all your energies during your student days to your scientific studies. I should be sorry indeed that your literary education should be neglected. I think it a sad mistake for any student to be hurried into medical classes without a general acquaintance with languages, mathematics, and physics; but the time for literary studies in your case is in the first place, and principally, before you begin your medical studies, and afterwards as much as you like when your medical curriculum is completed. They may even be advantageously attended to in holiday time; but devotion of time and study to literature during the sessions which ought to be given up entirely to your professional education is always injurious. Those of you who are commencing their medical studies are about to engage probably for the first time in scientific pursuits; and these differ widely from your studies hitherto, both in their matter and their methods. It is no longer principally memory on which you are to rely, but observation. You will find in science that it is little matter what this or that authority has said, or what the words in which he has spoken—Nature is to be your authority. You must observe for yourselves in every instance in which you have the opportunity; and, both in your own observations and in judging the statements of others, you have to learn by great care and practice to distinguish accurately the phenomena observed from the translation given to them—an art which, perhaps, to you at the outset may appear easy, but which I have learned to believe is never perfectly mastered.

And now I wish to say a few words about the relations of the sciences to philosophy, and to your future career.

Life is a voyage on which we enter without any will of our own, and in which we gradually wake to find ourselves on a stream not of our own selecting; with scenes around us, not of our own choice, carried by currents not of our own creating, but through which we have a certain limited power of steering, sufficient, at least, to enable us to profit by many lessons of experience, and avoid numerous dangers. This is that voyage of life in which men continually awake to ask the questions, whence have we come? and whither are we bound?—questions of the most gigantic and important description of any which directly interest humanity. It may naturally occur to you to ask what are the relations of science to those questions; and I do not think that I shall be travelling out of my proper domain to devote some part of an introductory lecture to put that matter justly before you. Science, if we consider the word merely from an etymological point of view, may be considered to include all methodised search after truth of whatever description; and it appears to me that this circumstance has often

misled some of its more noisy and less judicious votaries and on-hangers into arrogating for that which is in the present day called science, a title to deference in domains beyond its sway. It ought not to be forgotten that the term science, as the word is now used, includes only those branches of research in which the data are matters of observation. And I may remark further, that every science consists of two stages of different dignity—viz., the collection of data, and the formation of laws and doctrines therefrom. Thus, in philology the data consist of observations on languages and dialects, whence laws are evolved as to the changes to which words are subject, and doctrines as to the affinities of different tongues. In chemistry observations are made on the percentage composition of bodies, the proportions in which they combine with others, their crystallisation, and so forth; and conclusions, often of a most deeply theoretical description, are arrived at with regard to their constitution and the laws which regulate chemical combination. In physiology the component parts of living bodies are observed in action, the variation of their structure in different circumstances, and the chemical composition both of the parts themselves and their products are investigated, also the effects of external agents on them, and the influence on the body of removal of portions; and from the collection of such inquiries is built up all our information of the use of organs and of the laws of life as exhibited in the individual. Anatomy consists largely of an observational part; and in human anatomy it is the purely observational part which is of most importance to medical students. But in this science also there is a higher department; and he who looks on the mere gathering of material for the use of the physiologist, the surgeon, and the physician, as including the whole scope of the study, has but a very meagre and imperfect knowledge of that science whose business it is to investigate the laws of organisation—a science which, more than any other inquiry in the domain of nature, affords evidence of a mighty intelligence as Creator. I allude to that department of anatomy specially designated as morphology or philosophic anatomy; and this brings me to my next remark. For in philosophic anatomy we touch nearly on that department of knowledge which in modern nomenclature is distinguished from science under the name of philosophy. Philosophy is something very different from science in the restricted modern sense. It is a word which has always been used to designate the methodical search after the highest truths which interest humanity. Before the sciences had a distinct existence, philosophy contained the germs of them in its bosom. It has been not inaptly described as the science of the sciences, inasmuch as the generalisation and conclusions of the individual sciences furnish data on which it founds. It is not a structure built directly on observation of individual phenomena; such observation is not the instrument by which philosophy in the restricted sense is advanced. The object of philosophy is to penetrate to the unseen; to discover, as far as may be possible, the sources of all things, both of being and of good and evil; and this end is sought by processes of further generalisation than those attempted by the various sciences. All the sciences are useful for philosophic purposes; none of them to be despised; and I grant it is sufficiently plain that it is a most unsafe thing for any man to speculate on the nature of matter who has taken no trouble to inform himself as to what is known of the phenomena of the thing about which he talks. But it is not only the external world which has to be taken into consideration by the philosopher; the media through which the mind has cognisance of an external world, and the nature of that mind which takes cognisance must also be made the subject of investigation. Therefore, psychology takes its place as one of the most important bases from which the philosophic structure must spring; and you will perceive that no man has a right to put himself forward as an authority on questions of philosophy, on the mere strength of having spent his life in physical science. In the first place, physical science does not afford the whole material on which a philosophy can be founded; and in the second, a man who is an acute observer of the phenomena which he can appreciate by the aid of his senses may do most important work in the physical sciences, although he may be deficient in the logical power required for the higher generalisations—not to mention that he may be defective in those elements of judgment which are necessary for common sense. Take the question of the origin of man, or his position in the world. The studies of the biologist enable him to speak of man's zoological relations; and, indeed, none but biologists are in a position to express an opinion on that subject. The biologist, however, is right when he states that for any other than mere zoological relations he has no instrument at his disposal in his particular department of knowledge; and he is wrong, egregiously and culpably wrong, if, on that account, he pawns upon a credulous public a statement or even insinuation as based on the sure methods of science, that man has none but zoological relations, or that any other are to be ignored as beyond the power of investigation.

I have spoken of philosophy only as it is founded on science. You will probably many of you ask in your hearts, if I put Christianity or revelation overboard. To that I answer, certainly not. Christianity deals also with the highest questions which interest humanity; but in a totally different way. And, indeed, therein is its advantage; for philosophy is for the few, the very few, and Christianity for all. Philosophy and religion do not clash, but they are independent one of the other. I do not enter into religious matters in detail, because it is not my province, and because the principle on which these colleges are founded is, that religion shall be respected, and the tenets of no man interfered with, but that, inasmuch as all sections of the community are not of one way of thinking, whatever pertains to religion shall be left entirely for the various clergy to supply to their own adherents. Of this, however, we may be certain, that truth is one and harmonious in its parts. Parts far asunder and separate one from the other may, indeed, sometimes appear irreconcilable, till the gap which separates them is filled; but they shall surely be seen to agree in the long run. Therefore we can never do wrong, with due reverence and complete self-forgetfulness, unblenchingly to face and inquire into any aspect of truth which is presented to us.

I have said that the physical sciences are insufficient to serve unaided as a foundation for a philosophy, and there are some branches of philosophy—as, for example, ethics—to which they stand in little if any immediate relation; but there is one question on which they have an indubitable bearing—namely, as to whether the universe is to be traced to an intelligent source. One hears a good deal of talk about the materialistic tendencies of the age, and of physical science, and also of medical studies (which an ungrateful public has always been suspicious of); and I am not going to deny that there is foundation for talk of that kind; but I take leave to make just two statements on that subject. In the first place, if you will keep living physicists out of consideration, as it might be an invidious task to settle their claims to niches in the temple of fame, I think you will find that scepticism as to the intelligent source of the universe has not been fostered by the intellects of the highest order. Very sure I am that you will easily call to mind scientific authorities of the very highest type—men who were not mere observers of phenomena, but of the profoundest and clearest judgment that the world has seen—of whom that remark is true; and this I say, not because I would have you allow that or any other important doctrine to rest on the dictum of scientific men, however great, but because I would have you notice that the highest mountains rise above the mists, although perhaps they may be sometimes particularly cold; and because I frankly admit that there is quite sufficient shallow materialism abroad to tempt the young student to imagine that anything else is contrary to what is grandiloquently called "the precise methods of modern investigation." By all means be precise; but commence by pinning physical methods precisely to their proper place. In the second place, I have no hesitation in stating, as I have hinted already, that the study of anatomy, especially comparative anatomy, affords the most incontestable proofs of the existence of Deity, and that to espouse a contrary belief is to occupy a position from which it is impossible to appreciate morphology. If I find in a series of animal forms, arranged according to their places in an ascending scale, that the structures exhibit the evolution of a harmonious plan to which adaptation to external circumstances plays a mere subordinate part, then I must at once acknowledge an intelligent source—and that is just what I venture to say that no unprejudiced student of comparative anatomy can fail to see. Even in mere human anatomy what we call serial homology points to the same thing. Those of you who have studied the skeleton are familiar with the correspondences of one segment with another, and more particularly with the accurate correspondence of the bones of the hand and the foot; and you will judge rightly that nothing but a purely morphological unity of design will account for the detailed correspondences in two structures placed in the same organism and fitted for widely different purposes.

The propositions which I have ventured to lay down, you will perceive, are principally two: first, that the physical sciences do not afford sufficient material by themselves for the just consideration of the source of being, nor are its votaries necessarily accustomed to the methods which should be employed in contemplating that question; and secondly, that the material which is furnished by the physical sciences, and more particularly by the study of organisation, affords important evidence of the existence of an intelligent source. That second proposition I have laid before you merely as an assertion, but my object is simply to direct your attention to the subject, that, as you progress in your anatomical studies, you may judge for yourselves if the assertion is true.

## FROM ABROAD.

### Epidemic Pemphigus of New-born Infants.

Dr. Besnier, in his report on the mortality of the Paris hospitals for July, September, and October (during which months the deaths, except from croup, were rather below the average), gives an account of an epidemic of acute pemphigus observed in the lying-in wards of La Charité. He observes (*Union Médicale*, November 17 and 19)—

"Although the vesicular and bullous affections of the skin which are observed in young infants have formed the subjects of numerous investigations, their history nevertheless continues obscure. It may be affirmed that the majority of practitioners are acquainted with the different species or varieties of these affections only in the most imperfect manner; and it is useless to seek for an authoritative exposition of the real state of the question in the works of the most recent authors. It comes out, however, pretty clearly, from the examination of the facts, that besides ordinary varicella, and vesicular erythema, or pseudo-varicellas, whether connected with dentition, disturbances of digestion, or morbid conditions as yet ill-defined,—besides common chronic pemphigus, and especially besides congenital syphilitic pemphigus and the cachectic pemphigus of syphilitic infants,—there exists another kind of bullous affection proper to young infants, never developed until some days after birth, generally (but not, as seems to be supposed, always) benign, and corresponding more or less exactly to the really existing although contested affection known as acute pemphigus of adults.

"The acute pemphigus of new-born infants is characterised clinically by the development, with or without fever, a few days after birth, on vigorous and healthy as well as on sickly infants, of bullæ which may be solitary or very numerous, isolated from each other, preceded, surrounded, or becoming secondarily surrounded by erythematous redness, and having their seat on any part of the integument, the hairy scalp inclusive, but seeming never to affect the palms of the hands or soles of the feet, nor ordinarily the mucous membranes. The mean size of the bullæ is that of half of a large pea or of a hazel-nut, their contents being transparent, and ordinarily of a greyish or citron colour. They are evolved in crops, as in common pemphigus or in varicella with multiple crops, their evolution, rupture, and desiccation exactly resembling those of intense varicellas or of pemphigus levissimus. Exceptionally, the eruption is in itself sufficiently considerable to become a cause of death; and the general prognosis is based upon the state of the infant at the time when it is attacked. The total duration of the affection varies from a week to three or four weeks, or perhaps more. . . . . Scarcely is the nature of the affection established than new difficulties arise respecting it. Not only is it not always benign, and may terminate fatally; but it may be observed not only in the sporadic, but the epidemic form, and may be regarded as contagious. So that it becomes necessary to inquire in these cases, which are quite identical in the sporadic and epidemic condition, whether we have really to do with a pemphigus, with a new affection yet to be determined, or with a form of varicella deriving its intensity or its gravity either from the puerperality of the infant or from its new-born condition."

M. Homolle supplies an account of the epidemic in question. It seems that seventy-nine births took place, and that for an infant not to be attacked was quite the exception, varicella not existing in the wards at the time of the outbreak. The eruption exhibited very different intensity in different cases, the bullæ appearing from the third to the sixth day, successive crops being observed in some cases during one or two weeks or more. In some cases the affection presented almost a varicelloid character, so small and regularly hemispheric were the bullæ; while in other parts of the body of the same child, or in other children, there were large surfaces rendered raw, as if blisters had been applied. In most of the infants the health and functions were not at all interfered with, the children continuing to thrive while exhibiting even large bullæ. One infant died about twenty-four hours after an abundant eruption of bullæ had covered the trunk and lower extremities, the dermis at the time of death being denuded over almost the whole body, just as if the child had been plunged in boiling water. The autopsy furnished only negative results, among which were the entire absence of any lesion of the mucous membranes, which were examined throughout their entire course.

M. Besnier gives an interesting sketch of other epidemics which have been recorded, but arrives at the conclusion that to establish the nature of the affection, and to determine whether it should be completely separated from the varicellas or be considered as an exceptional and special form of these affections, more investigation is required.

### M. Demarquay on Operating for Umbilical Hernia.

In a paper published in the *Bulletin de Thérapeutique* for October 30, M. Demarquay, after alluding to the almost invariably fatal issue of operations for strangulated umbilical hernia, describes a new mode of operation by means of which he has been enabled to save one out of the four patients upon whom he has put it into force. He has never seen recovery follow the ordinary operation performed after attempts made at reduction, which are usually futile in consequence of the numerous old adhesions. After the operation, too, by which the peritoneum has been largely opened, only a small portion of the intestine can be usually returned, and fatal peritonitis is the almost invariable result. Many surgeons, indeed, refuse to operate at all when the hernia is voluminous and the patient aged. M. Hervez de Chégoin during his long career has only met with one successful operation, and the case is given at length by M. Demarquay on account of the rarity of the success which attended it. It occurred in a stout woman sixty-six years of age, in whom a large and partially reducible hernia had existed for forty years without giving rise to any accident. The operation was performed on the sixth day after symptoms of strangulation came on, the sac being exposed and opened by crucial incisions, and a large quantity of omentum being excised before the strangulated intestine was exposed. The constricting ring was divided on the left side and reduction effected, omentum several inches in thickness remaining outside, and the wound being only lightly dressed. The omentum mortified and came away on the fifteenth day, and cicatrisation promptly followed. M. Hervez was induced to operate in this case, although strangulation had lasted so long and the general symptoms were unfavourable, because, although the abdomen was much distended, it was not very painful. However, success like this is of very rare occurrence, and M. Demarquay has been led to adopt the following mode of operating. In place of making a crucial or linear incision and largely opening the tumour in order to investigate the condition of the parts, he extends an oblique incision from the middle portion of the tumour towards the left side of the abdominal wall, avoiding thus both the umbilical vein and the linea alba. The cellulo-adipose tissue is then divided, layer by layer, until the pedicle of the hernial sac is reached, when a small incision is made at the lower part of the left side of the sac. Through this the end of the left index-finger is introduced so as to rest on the orifice of the hernia. Along the finger a falciform bistoury is passed, and an incision of at least two centimetres is performed—this incision implicating the left side of the circumference of the hernial sac and cutting through all the substance of the abdominal wall at this point, which generally is not thick. There being no important vessels on this side, no bleeding follows, and the tumour becomes less tense. An interrupted suture is carefully applied and covered with collodion. The great object of this operation is to divide freely enough to remove the strangulation, and then to leave the parts as they are. The sac is only interfered with to a small extent, and air cannot enter and exert an injurious effect upon the inflamed surfaces. The aim of the operation is to remove the strangulation by a *débridement* of three or four centimetres, and then, if the intestine has not been too much compressed, and it as well as the omentum are

still only in a state of congestion, the parts concerned will become disgorged and their functions re-establish themselves, and this even when there is a little herniary peritonitis. No taxis should be resorted to after the operation, for most of these intra-omental hernias are irreducible, and attempts at reduction will only do mischief. M. Demarquay has only met with success in one out of four cases, and these were women not advanced in age, but then he only adopted this procedure after reiterated attempts at reduction. For greater success he believes it must be resorted to promptly before inflammatory action becomes localised in the omentum, intestine, or hernial sac, and especially before any general peritonitis occurs. Modern surgery has shown us that wounds of the peritoneum when it is in a sound state are not attended with the danger formerly supposed, and our endeavour should be to act before it becomes inflamed, and especially before the patient becomes exhausted by pain, sleeplessness, and vomiting, which render reaction impossible.

### Consumption of Horseflesh in Paris.

M. Husson, of the French Institute, has recently (*Journal de la Société de Statistique*, October) published an interesting statistical paper upon the consumption of horseflesh in Paris. He observes that things are greatly changed since some twenty years, when visitors to the knacker's establishment at Aubervilliers used to look with compassion on the workmen who regaled themselves with selected joints of horseflesh which they carefully cooked over the furnace fire. As a result of the untiring efforts made by the late M. Isidore Geoffroy Saint-Hilaire to bring it into use as a cheap and nutritious article of diet, from the year 1866 there have been established special butcheries in Paris where horseflesh is cut up and exposed for sale just like other meat. It is to the siege of Paris, however, that the great impulse which has been given to its sale is due, although it is generally acknowledged, even by those who have no repugnance to it, that this meat constitutes an inferior aliment, the consumption of which is not likely to spread far. Still, in a populous town like Paris, where ordinary meat has reached such high prices, there will always be found customers for it. In other capitals this has proved also to be the case. Thus, at Berlin, between 1865 and 1872, there were slaughtered 25,873 horses—*i.e.*, 3234 per annum; but the number does not seem to be on the increase. At Munich, between 1859 and 1870, there were slaughtered 3905 horses, which, taking the amount of meat realised as 100 kilos. per horse, would furnish 32,500 kilos. per annum. At Vienna no account has been kept of the number of horses killed, but in 1870 there were eight horse-butchers and thirteen places for the sale of the flesh. In England there has been no attempt to employ horseflesh as food (if we except the large use of it that is made in the preparation of "beef" sausages), and M. Husson agrees with Dr. Edward Smith, whom he quotes, that it is very unlikely that its use will be adopted here.

In France there are various modes of cooking the flesh in order to render it more palatable, but M. Husson believes that the sausage is likely to be the preparation most favourable to the increase of consumption. Several sausage manufactories have been established at Paris and in the country, the most important of which is the one at Beaucaire, wherein the flesh of 500 horses was transformed into sausages during 1873. Besides the muscular substance of the animal, the tongue, heart, brains, and liver are dressed in various ways, and with horse-fat a kind of butter is prepared for culinary purposes, as also an oil which may be preserved by the aid of salt. The horse-slaughterers, who formerly bought a dead horse for from 20 to 25 francs, the value of his skin, now give 50 francs for a well-conditioned horse which is not suitable for the butcher's. The price of edible horses varies from 130 to 150 francs; and at these prices the horse-butchers often realise greater profits than do most of the ordinary butchers. Before being slaughtered the horses are inspected by a veterinary surgeon, who interdicts the employment of such as are too emaciated, or are suffering from disease or suppurating wounds. After the slaughtering the meat is submitted to inspectors, who prohibit its use when diseased.

At the beginning of 1874 there were forty-eight butchers' shops at which the flesh of the horse, as also of the mule and ass (the flesh of these, though firmer, being more tasty), was sold. The customers were derived neither from the well-to-do classes nor from the indigent, but consisted chiefly of small *employés* and workmen having families. Attracted at first by the low price of the meat, they soon became accustomed to eating it. From 1866 to 1873 there were slaughtered 73,655 animals—viz., 70,128 horses, 3400 asses, and 127 mules. Of these numbers, however, 43,709 were consumed during the sieges of Paris. During 1872 the numbers were 5004, and during 1873, 7834. The net amount of meat derived from each horse or mule is valued at the abattoirs at 190 kilos., and from each ass at 50 kilos., and in these weights the tongue, liver, heart, and brain are not comprised. The 73,655 head of animals are thus calculated to have produced 13,518,450 kilos. of net meat; the quantity having amounted to 986,890 kilos. in 1872 and 1,552,750 kilos. in 1873. The great increase of consumption which has taken place during these last two years has arisen from the high prices of butchers' meat, and from the diminution of the repugnance to horseflesh which habit has produced. Still, the number of consumers is not large; for, taking the daily ration of each of these at the probable amount of 250 grammes, the number of consumers for the years 1867, 1868, and 1869 would vary from a minimum of 4958 to a maximum of 5512. This number was doubled in 1872, and tripled in 1873. The 8,352,990 kilos. consumed during the siege by the 2,118,900 individuals to whom they were distributed would furnish only 26 grammes per inhabitant—a figure which nearly approaches the official rationing. The price of horse meat, like that of ordinary meat, varies according to the quality of the animal and the part sold; but in ordinary times the value of the edible parts of the horse are valued at one-half that of the same parts of the ox. Since the dearness of ordinary meat has increased the number of customers for horseflesh, there has been some rise in its price. At present it is a lucrative industry, but if the prices continue to rise so as at all to approach those of ordinary meat, its sale will doubtless soon fall off, as this must always be regarded as exceptional.

## REVIEWS.

*Dental Pathology and Surgery.* By S. James A. Salter, M.B., F.R.S., M.R.C.S., Examiner in Dental Surgery at the Royal College of Surgeons, and Dental Surgeon to Guy's Hospital. One vol., 8vo. London: Longmans and Co.

This volume is a collection of all the previous essays and papers on dental surgery and pathology which the author has written; they are arranged in chapters, and, with the addition of much new material, they have been worked up to the knowledge of the day. Mr. Salter was educated as a surgeon, and was House-Surgeon to King's College Hospital, and practised surgery for the first few years of his career; hence it is that he has taken a broad view of dentistry, and has given to the profession an admirable treatise, not only on the pathology of the teeth, but also on dental surgery.

The first portion of the book is devoted strictly to the teeth, to those affections and defects for which the dentist proper is rightly consulted; whilst the greatest portion of the latter half is confined to dental surgery, in which comprehensive term are included the various surgical affections of the gums, teeth, and jaws, which, perhaps, fall as often to the care of the surgeon as of the dentist. In the first chapter Mr. Salter has described very fully the anatomy of the teeth, and then he has considered in order the different forms of supernumerary teeth, and the various irregularities for which so much can now be done by skilful management. Caries and necrosis of the teeth, diseases of the teeth-pulp, and the casualties of teeth extraction are all ably treated in separate chapters. The article on odontomes or tumours of the hard tissues of the teeth is specially interesting, as such growths have been mistaken for tumours of the jaw, and portions of the maxillæ have been excised when the removal of the tooth would have sufficed had a right diagnosis been made.

The chapter on "Dentigerous Cysts" is full of information, and contains all that we know of these rather exceptional outgrowths. Mr. Salter describes dentigerous cysts as "collections of serum or sero-pus in the dental capsule"; and he says that they "only arise when the tooth or teeth associated with them are embedded in the substance of the jaw-bone; they do not occur after the tooth has pierced the gum." The importance of a correct diagnosis in such cases cannot be exaggerated, as the whole treatment depends on it.

The affections of the nervous system dependent on diseases of the teeth occupy a chapter which is very full of interest. Numerous cases are related to show the influence a carious

tooth may exert in producing reflex nervous diseases. In some patients with extreme neuralgia, and in others with reflex paralysis, the symptoms at once began to mend on the extraction of a carious tooth.

The last chapter is devoted to cleft and perforate palates, and describes the different forms of obturators and false palates which the dentist may be called upon to make. In conclusion, we would recommend the book as a most able and practical treatise on dental surgery and pathology. It tells all that is known on the subject in a clear and pleasant style, and should be read by all who are interested in that special department of surgery. The book is well printed, and illustrated with 133 excellent wood engravings.

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*Public Health Administration.* By E. Ellice-Clark, C.E. Ramsgate: Jesse Pullen, *Kent Argus* Office, Effingham House. 1874.

The contents of the above pamphlet are reprinted from *Public Health*, and may be said to be a short review of the working of the Health Acts of 1848 and 1872. The defects which surround the present efforts at sanitary legislation are very fairly pointed out, and the author makes various suggestions for improving the system now in force for carrying out the provisions of the Acts in question. We quite concur in his remarks that the salaries of the medical officers appointed in some districts to act as sanitary inspectors are totally inadequate, and that for a sum of £15 or £20 a year it is perfectly impossible to suppose that a competent medical inspector can be obtained. The pamphlet contains many useful hints for the enforcement of increased sanitary legislation, and will be found worth perusal by those who are specially interested in the subject.

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*Causeries Scientifiques.* Par Henri De Parville. Paris: Rothschild. 1874. With fifty engravings. Pp. 354. Thirteenth year.

Under the title of "Scientific Gossip" M. De Parville gives us a most useful annual, which well deserves a place in every library. He gives a *résumé* of the chief facts which have been promulgated during the preceding year in the spheres of science and of the useful arts. The variety of information in the book before us is prodigious. Of course the French element preponderates, but nothing can exceed the truly French grace and clearness of style. How shall we describe the contents? Chapter I. contains an elaborate account of the relation of the heart to the nervous system; the second contains a *résumé* of stellar astronomy and of pisciculture. Succeeding chapters bring before us pharmacy, coffee barometers, Parisian drinking-waters, Fayrer on snakes, the anatomy of the Siamese Twins and of the Two-headed Nightingale. If there were but better arrangement and fuller references, the book would be more useful; as it is, open it at random, and something interesting is sure to meet the eye.

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## FOREIGN AND COLONIAL CORRESPONDENCE.

### FRANCE.

Paris, November 23.

Dr. Déclat's "Traité de l'Acide Phénique appliqué à la Médecine—The Explosion at St. Denis.

While Professor Tyndall is discussing the seeds of disease on your side of the Channel, it may not be out of place to bring to the notice of your readers a work that is creating a great sensation in Paris, not among the faculty in general, but among a certain few, although it also extends to the non-professional public. The doctrines enunciated in the work are precisely those which are entertained by Professor Tyndall on the germ theory of disease, and which are founded on M. Pasteur's important discoveries of the cause or agency of certain forms of fermentation. No one will deny that M. Pasteur has rendered immense service to the wine trade, but when he attempts to apply his theory to animal pathology he is not so happy in the results, as it is now generally admitted that there are certain diseases the origin of which cannot be traced to germs or bacteria.

The work I have referred to above was written by Dr. Déclat, and is entitled "Traité de l'Acide Phénique appliqué à la Médecine." Dr. Déclat has earned a certain reputation by his writings on this subject, but his observations are received with suspicion and disfavour by the profession, as he makes carbolic or phenic acid a panacea for all diseases—even for that most terrible affection, cancer. His doctrine is very clearly given in his work in the form of introduction, which is to the effect that all diseases are due to the development, *in* or *on* the body of man and animals, of animalcules that are microscopic or visible to the naked eye—that is, parasites—bearing an absolute resemblance to the ferments that disorganise organic matter. This theory as applied to certain diseases is, according to Dr. Déclat, founded on direct observation; to others, on striking analogies, and on all the other medical doctrines that have remained unexplained save by the parasitic theory. Parasitism, he adds, explains contagion, miasmatic influence, the action of viruses, etc. The ferment germs, floating in the air or placed in contact, in certain conditions, with our organism, are developed in it and alter its functions. Such, according to Dr. Déclat, is the origin of epidemic, endemic, or sporadic diseases. The first are due to the invasion of animalcules wide-spread in the atmosphere, like the myriads of inoffensive flies which, in the spring of 1872, so infested Paris, or like the clouds of locusts which are sometimes observed in Algeria. Endemic diseases, intermittent fevers, yellow fever, typhoid fever, etc., are to be traced to centres of putrid fermentation, from which they derive their living germs, the parasites, which are unanimously acknowledged by scientific men to be the cause of these affections. As for sporadic maladies, Dr. Déclat remarks that these do not prevail equally as regards time, place, and seasons; and the proof that they also are of parasitic origin is, that many animals and vegetables are generated and developed at certain determined periods and places. This theory being admitted, the period of incubation, which precedes the appearance of disease, may be thus explained: as the germ or morbific ferment introduced into the system requires a certain time to reach the active phasis of its existence, so the duration of the stage of incubation varies according to the species to which the parasite belongs. In the same way is the duration of the incubation of the eggs of different oviparous animals variable. Moreover, the development that follows incubation is more or less rapid; hence we have acute and chronic affections.

Such is, in substance, Dr. Déclat's theory of the origin of disease, which in many respects is unassailable; but where he errs is in imputing every disease to parasitism. It cannot, however, be denied that his deductions are very ingenious, but, like all others who have a hobby, he is too exclusive in his doctrine to be of any real service to the practice of medicine—a science so comprehensive in its nature and difficult to encompass. But, according to Dr. Déclat, the practice of the healing art would be reduced to its simplest expression if medical men would only bear in mind that, the fermentation of organised matter being due to germs floating in the air, two indications naturally present themselves to oppose to these agents of disorganisation or decomposition—1. To prevent the fermentable substances from being in contact with the air; and on this is founded the conservation of alimentary substances. 2. To destroy the ferments existing in the atmospheric air or absorbed into the organism. This Dr. Déclat proposes to do by the free use of carbolic acid internally as well as externally; and he is so imbued with the rationality of his doctrine, that he has started a journal, entitled *La Médecine des Ferments*, which, as is naturally to be expected, is full of carbolic acid and its various forms and preparations.

You have doubtless heard of the terrible explosion that took place last week at St. Denis—a suburban town about five or six miles from Paris. I do not intend boring your readers with a long account of the accident, as the daily papers are full of it. I may, however, say a few words as to the probable cause of the explosion, which can only be compared with that on the canal at Regent's-park. The shock was so great that, notwithstanding the distance, several houses in Paris were shaken to the foundation, and the noise was so great that it was taken for that produced by a thunderbolt. Several conjectures are entertained as to the probable cause of the explosion, but nothing positive has been ascertained. It occurred, as you are aware, in a large colour manufactory, where chemicals must be employed to a great extent. I am told that large quantities of the nitrate of methyl are used in the manufacture of the colours; it produces a beautiful green, and was discovered in 1838 by MM. Dumas and Peligot; it is a highly inflammable substance, and is obtained by the action of sulphuric acid on

methylic alcohol or wood spirit. So inflammable is the nitrate of methyl, that when these distinguished chemists were trying experiments with it they were very near having their eyes blown out by the explosion that then took place. The explosive properties of this substance can only be compared to those of the fulminate of mercury, and it is probable that the apparatus in which it is distilled became from some cause or other overheated, which produced decomposition of the vapour and the consequent explosion which took place. Fortunately there have not been many casualties; there has been only one death and five or six wounded. The casualties would have been greater, but providentially the accident occurred before the workmen arrived in the early morning. The poor fellow who died was burnt to death. He was a tall young man, about six feet high; but when taken out of the cinders he was shrivelled up to about half that size. One man, who had his eyes burnt, was supposed to be blind, but I am told he has just discovered that his sight is preserved, as he can distinguish different objects, much to the gratification of himself and his friends. But it appears the disastrous effects of the explosion were not confined to the manufactory itself, as several persons have been deafened by it; among the latter a young girl about to be married, on which account the happy day is put off. It is to be hoped that, in her case at least, what is deferred is not lost. A young man was so terrified by the explosion that he has become insane. The poor fellow is completely out of his mind, and manifests great fear of bursting to pieces.

## REPORTS OF SOCIETIES.

### EPIDEMIOLOGICAL SOCIETY.

Wednesday, November 11.

W. R. E. Smart, M.D., C.B., Inspector-General R.N., President, in the Chair.

The Secretary announced that the report received by the Council of the present state of the Society is highly satisfactory. The expenses incurred in producing the recent volume of *Transactions* were fully met by the balance brought over from the previous session. All the expenses incidental to carrying on the business of the Society are already paid, and the number of members is increasing. A numerous list of donations was read, including contributions from corresponding members in all parts of the globe. An important observation of the occurrence of albuminuria in the premonitory stage of cholera was communicated by Dr. Schlimmel. In twenty-three cases where this was detected before any other signs of illness, all but one had diarrhœa in from four to fourteen hours afterwards, three had severe choleraic symptoms; in fourteen the diarrhœa was soon relieved, and in all the albuminuria disappeared in a few days.

The President then delivered the opening address. He congratulated the Society on the great activity of the past session, on the importance of the papers that had been read, and the very complete discussions which had followed Dr. Murray's paper on Cholera, Dr. Gavin Milroy's on Quarantine, and Dr. Corfield's on the Germ Theory of Typhoid or Enteric Fever. He wished specially to acknowledge the value of the support afforded by the active part taken in the proceedings of the last session by their corresponding members, Dr. Cuningham in person, and Drs. Tholozan and M. Léon Colin, Professor of Epidemiology in the Val de Grâce. Referring to the course of the greater epidemic diseases through the past year, it is seen that cholera had disappeared everywhere in Europe except in Munich, where it hybernated, with two climaxes in the first week of February and the first week of April, not being finally extinct until the first week of May. In March it reappeared in Prussian Silesia, that had been much infected by it in this epidemic, remaining there up to July, when, it may be hoped, the epidemic of 1865 took its final departure from Europe, completing the third pandemic of Asiatic cholera in nine years—the first (from 1830 to 1837) having lasted seven, and the second (from 1847 to 1861) fourteen years. The last two cycles were more than doubled in duration by recrudescences that had arisen in Europe itself in districts where it had lingered, reduced to almost sporadic type when extinct elsewhere, to revive with epidemic force and renew its invasive properties. Thus the primary invasion of 1847 had died out after four years, except in Bohemia, where it made a fresh outburst in 1851, and spreading from thence it lasted in Europe ten years. So the primary invasion of 1865 had ceased in 1868, except in the province of Kief, in South-West Russia, where it produced two local epidemics in villages, together with isolated cases in the Western Provinces of Russia, with forty-two deaths in St. Petersburg and fourteen in Moscow (Pelikan); but in May, 1869, fatal cases began to show themselves in the camp at Kief, and the disease became epidemic in August amongst pilgrims who lived under sanitary conditions so unfavourable as to be sufficient of themselves to produce sporadic cholera. The epidemical character of the disease was not defined until after it had attacked consecutively several persons who enjoyed the benefit of living under good sanitary conditions. (Pelikan.) From Russian sources we learn the extent of these secondary visitations. Dr. Archangelsky states that that of 1851 cost at least 1,000,000 lives, of which 352,000 perished in Russia and Poland alone, with a percentage of 44 to the attacks; and Dr. Pelikan states that that of 1869 has been attended with a loss of 370,000 in the countries lying east and south-east of the Elbe, with an equal percentage to the attacks to that of the former. These great facts indicate that the secondary diffusions, arising from the almost extinct embers, retain the invasive energy, together with the mortality, of the primary invasions from Asia. The question is now agitated whether the repetition of these secondary diffusions might not be prevented under fitting sanitary measures directed by a Central International Congress or Board of Health, assembled on the first warning of a primary invasion from Asia, with plenary power to watch the progress of the disease and give aid wherever it may appear, and to watch over the extinction of its last embers in infected districts. The late Congress at Vienna has strongly advocated this reasonable proposal, which England, foremost among nations in efforts to prevent future invasions by her sanitary inquiries and measures of public hygiene in India, and deriving her own infections from the continent of Europe, must rejoice to find her sanitary policy thus widely adopted; and it is to be hoped that this Society will lend its wonted direction to secure the entire fulfilment of its long-adopted principles. Through Egypt lies the only sea-route by which the disease can be imported, and she has shown her readiness to comply with the scientific teachings of Europe. Russia commands the land frontier across which it must pass; and although perhaps the original route by the Volga may have become obsolete, yet, as Mr. Radcliffe has pointed out, a fresh danger to Europe has arisen from Persia through the Caucasian provinces of Russia, where that Government has now established a strict observation with means of quarantine. Such being the existing machinery in action—sanitary measures in India and preventive measures of exclusion on the routes from Asia to Europe,—we may feel that more will be done than at any previous date to save Europe, and with it America, from any future primary invasion. The countries of Western Europe have cast off the early theories of atmospheric causation, and have carried into practice a firm reliance on the necessity for observation of arrivals from infected localities, together with isolation of introduced first cases, and a stricter observance of general hygienic laws. In Central Europe there has of late been substituted for the exploded theory of atmospheric causation, another by tellurial influences, known as the "ground-water" theory. Where the last has been entertained the late epidemic has been as severe as any previous one, while Western Europe has remained comparatively exempt. These are significant facts, and it is gratifying to notice that the opinions of the late Congress have been more in accordance with those of Western Europe, and that recent contributions to epidemiology by Russian authorities—Archangelsky on the recrudescence of cholera in Bohemia in 1851, and Pelikan on that in South-Western Russia in 1869, together with Schlesinger on the cholera epidemics of Denmark—afford strong confirmations of the same opinions as grounds for future action in controlling these epidemics. The year 1873 was signalised, also, by a wide display of yellow fever in Eastern South America from Cayenne to Monte Video, and in the Southern United States, where it broke out at Shreveport, on the Red River, 200 miles inland from New Orleans, extending from thence to the Atlantic coast and to the shores of the Gulf of Mexico. It presented itself also in Jamaica, amidst bad hygienic conditions; and prevailed on the delta of the Niger, menacing the expedition on the Gold Coast, which, however, remained intact through enforcement of quarantine. It may have been of indigenous growth in Africa,

but Sal, one of the Cape Verds (a commercial link between the Brazils and the Niger), was infected at an earlier date. In 1874 this pestilence has appeared again on the coasts of the Gulf of Mexico and in the Brazils, with a less degree of force, which appears now to have expended itself; and sporadic cases have been heard of from Jamaica. The Plague, once indigenous in Egypt and the Levant, has disappeared there in the wake of a newly developed commerce. It is now driven back to remote localities, amidst semi-barbarous tribes subject to the lowest social conditions. In 1874 it has been epidemic amongst the nomads of Kurdistan, the rice-growing tribes in the Dazerah plains of Lower Mesopotamia, the wandering Affiz Arabs of the Hedjaz, and the people of the upland plains of the Cyreninea—in each case exemplifying its dependence on the worst of general sanitary circumstances, and its tendency to recur in the same localities as before; a remarkable feature of the visitations in 1874 being that of its appearance at so many distant points between which no relation can be imagined, thus affording considerable support to the doctrine of spontaneity of origin. It took two centuries of progressive civilisation after that great disinfector, the Fire of London, to drive this pestilence out of Europe; but modern sanitary science now bids fair to counteract by rapid strides that later Asiatic scourge, the cholera. Thus we see that the year 1874 has been signalised by the co-existence of the three gravest pestilences—cholera, yellow fever, and plague. Of the minor epidemic diseases, which are still too prevalent among civilised nations, the small-pox has been more extensive in England than in 1873, but more closely limited to the Northern and Midland Counties. Enteric fever has also been unusually frequent where small-pox has been most prevalent, and likewise in the Southern Counties. Scarlet fever has, however, been the widest epidemic of the year. In London it commenced in the Eastern districts in the spring, and it now infects also the North-Eastern and the Southern districts. In London the advantages of the great special hospitals for zymotic diseases has been fully realised this year, affording a metropolitan example to be followed in all other large towns. It rests with us, as a nation, to show the force of all sanitary measures in the prevention of the ravages of this class of diseases that become epidemics only where the converse conditions are allowed to exist; for, by adhering to this as our mission, we shall convince all other nations of the sure foundations of our principles of action.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 24.

C. J. B. Williams, M.D., F.R.S., President, in the Chair.

### Cases of Syphilitic Reinfection, with Remarks.

Mr. George G. Gascoyen read a paper on this subject, in which he gave the details of eleven cases of syphilitic reinfection which had passed under his observation, and seven of which he had himself treated for both diseases. Ten of them had previously had general syphilis, and in six of these constitutional symptoms again manifested themselves, while in the other four an indurated chancre only was the evidence of a second contamination. The remaining case was one of well-marked indurated chancre with inguinal adenopathy for the first disease, but the reinfection showed itself as an indurated chancre followed by tertiary lesions without the intervention of any of the secondary affections. The importance of these cases was dwelt upon as evidence that the diathesis created by syphilis may completely wear out and leave the individual free from all trace of his former attack, so that he may become the parent of healthy offspring, and also liable to contract again the disease if exposed to contagion. That examples of syphilitic reinfection cannot be so rare as is commonly supposed was proved by a table appended, in which sixty cases had been collected from various sources; and as in most of them, as well as in those which formed the subject of this communication, a full mercurial treatment had been employed, they were considered to afford strong testimony to the value of the drug, not only as a remedial, but actually as a curative agent in this disease. The author endeavoured to show from these cases what is the real meaning of the induration which commonly accompanies an infecting chancre. He did not regard it as one of the strictly local processes attendant upon, or essential to, the development of such a sore, but as the first of the so-called secondary symptoms—the earliest expression of a constitutional contamination,—which usually manifests itself at the point of inoculation, and which is as pathognomonic of a general taint as any of the affections admitted to be secondary. In most of the cases related the sore followed at once upon intercourse, and it was urged that a period of incubation is by no means necessary to the evolution of an indurated chancre. Much difference of opinion existed on this point, and the author considered that the presence or absence of incubation is determined by the nature of the lesion from whence the chancre has been derived, whether from an infecting sore which is still suppurating and in full local activity, or whether from an indurated chancre which has become indolent and ceased to form pus, or from some other constitutional affection. In the former case, which was regarded as an example of primary syphilitic inoculation, no incubation preceded the pustular origin of the chancre; but in the latter, which constituted an example of secondary syphilitic inoculation, a period of incubation always preceded the papular development of the resulting sore. And as the phenomena which have been observed to follow the inoculation of an indurated sore were precisely the same as those which attend the successful inoculation of mucous tubercles or of syphilitic blood in a person previously healthy, this fact was considered to afford an additional reason for placing a non-suppurating indurated chancre in the category of secondary syphilitic accidents. Some of these cases of reinfection threw light upon the position which the more remote lesions following upon syphilis really occupy with regard to the disease. Six of the cases recorded (one of the present series and five given in the table) occurred in persons suffering at the same time from tertiary syphilis; and it was sought from this circumstance to show that some of the more advanced symptoms must be the sequelæ of a past, and not the manifestations of a still existent disease. For since it was impossible to believe that two distinct attacks of general syphilis can take place in the same individual at the same time, these later manifestations, characterised by cachexia, ulcerations, etc., which existed when the second contagion took place, must be due to the injury inflicted upon the economy by a previous disease; and the fact that a fresh infection can take place under such circumstances would seem to be convincing proof of the accuracy of such an assumption.

Mr. Henry Lee regarded Mr. Gascoyen's paper as a highly valuable one. His own experience entirely agreed with what Mr. Gascoyen had stated as to the reinoculability of syphilis on a person who had already had the disease. He was rather surprised to hear that there were so few cases in English literature. He thought that he had published two cases where reinfection had occurred. In cases of reinfection, the character of the sore differed from that produced in a previously healthy subject; it was small, and ran through its course quickly. The period of incubation was not so long as in an original sore; and glands were not so definitely enlarged, and suppuration occurred. The secondary symptoms after reinfection were of the same character as those following original infection, but were milder, and yielded more readily to treatment. He could not draw a distinct line at the period at which a person having had syphilis could be said to be free from the disease: the passing off of the influence took place gradually, like, for instance, that of vaccination. He had treated a patient for syphilis, followed by slight secondary eruption, and who, seventeen years afterwards, was reinfected. On the second occasion there was a small pimple, with enlarged and suppurating glands, followed lately by the development of well-defined copper-coloured blotches. He had also seen a case where there was general enlargement and suppuration of the glands, and which was probably one of reinfection. According to Mr. Gascoyen, induration was essentially a constitutional symptom; hence, if there were no induration, there was no constitutional affection. The results of inoculation after reinfection did not seem to be the same as those of inoculation from a soft sore. He had lately seen some inoculations by Mr. Morgan, of Dublin, in which the cicatrix was raised rather than depressed.

Mr. Acton said that there was no doubt that reinfection could take place; but he could not understand that this occurred so often as was stated. He had not seen more than ten or eleven cases. He was often called to cases of supposed reinfection; but hardness, not necessarily the result of reinfection, might come on in the site of a primary sore years after

the first infection. He had met with a case where a man, supposed to have recovered from syphilis for ten years, again presented symptoms of the disease. Such a case, according to Mr. Gascoyen, if induration were present, would be regarded as one of reinfection. It was an important practical observation, that in cases of reinfection the secondary symptoms were recovered from almost with the mere use of tonics, without mercury. With regard to inoculation from secondary syphilis, he thought that it was a question of great difficulty. Persons having secondary symptoms cohabited for months without producing infection. He had seen attempts made to inoculate secondary syphilis; but the process was a difficult one. It was said that it was very easy to prove that reinfection occurred frequently. Was he to understand that, in order to prove this, surgeons had undertaken the responsibility of inoculating healthy persons? Unless this were done there was a want of data that could be depended on.

Dr. Drysdale had been long on the look-out for cases of reinfection; but he had only met with one case, in which a gentleman, who had a primary sore followed by sore throat and eruption in 1861, having recovered, was reinfected in 1870. He did not think that induration was a sufficient sign of reinfection; for tertiary induration might be mistaken for that of a primary sore, and he believed that many authors had probably made this mistake. He did not agree with Mr. Hutchinson's view that the tertiary symptoms were not really syphilitic. He thought that, to prove that two attacks of syphilis had occurred in the same person, it would be necessary to show that there had been roseola on both occasions. Such writings as those of Mr. Gascoyen tended to shake the dualistic theory of syphilis, which he believed correct. He would ask Mr. Gascoyen whether syphilitic men ever begot syphilitic children without first infecting the mother. Inoculation from secondary manifestations had always resulted in syphilis. Infection had in some cases taken place by the mouth. Prostitutes must sometimes infect by secondary symptoms; it was scarcely possible that there could be sufficient primary syphilis among them to account for all the cases of infection.

Dr. Thin said that the influence of iodide of potassium in tertiary syphilis indicated that it was not merely due to the wearing down of the constitution.

Mr. Trotter said that his experience in a regiment for twenty years confirmed the existence of reinfection. It had several times occurred that a man had a hard chancre, and recovered under treatment; and that, after remaining well for five, six, or seven years, he became reinfected. In the interval he had been examined at the regular inspections, so that any sign of disease would have been detected. He was rather surprised that so few cases of the kind were recorded.

Mr. Myers had for fifteen years looked on reinfection as of common occurrence. He had also noticed cases where, after the healing of an indurated sore, induration was again produced by some irritation, without true infection; in one case this had occurred three times. He regarded induration as local rather than constitutional.

Mr. Gascoyen replied.

Subcutaneous Injection.

Dr. Sansom showed some discs of alkaloids with gelatine which had been prepared for him by Messrs. Savory and Moore. They were intended to be dissolved for subcutaneous injection, and their use would obviate the difficulty attending the keeping of solutions.

## LEGAL INTELLIGENCE.

### ACTION FOR ALLEGED NEGLIGENT TREATMENT.

In the sittings at Nisi Prius, in the Court of Queen's Bench, Westminster, on December 1, before the Lord Chief Justice and a special jury, the case of Simpson and wife *v.* Davey was concluded. Mr. Montagu Chambers, Q.C., Mr. Powell, Q.C., Mr. Talfourd Salter, Q.C., and Mr. J. E. Hall were for the plaintiffs; Mr. Philbrick, Q.C. (with him Mr. Hawkins, Q.C.), and Mr. Palmer for the defendant. The action was brought to recover damages from the defendant, who is a medical man, for the negligent treatment of the female plaintiff. There was a great deal of medical evidence given on both sides, and in the course of the case it appeared that the defendant, although denying any liability, had entered into an agreement to continue his attendance upon the female plaintiff and pay all expenses until she should be completely cured. It was admitted that this agreement had not been completely fulfilled by the defendant, although he had acted in accordance with its terms for a considerable time.

At the sitting of the Court on Tuesday, the counsel engaged in the case, after conferring together, agreed to certain terms upon which both parties were willing to settle the case. These were that the defendant was to pay the plaintiffs £500, and all imputations whatever upon the defendant were to be withdrawn. There was also an arrangement as to the costs of the action. Upon this being announced, the Lord Chief Justice said he thought this was a most proper termination of the case, and that it was impossible not to look upon the plaintiff, his wife, and the defendant as common sufferers in a common calamity. Although there might be no legal blame, and certainly there was no moral blame attaching to the defendant, he had done quite right in submitting as far as in him lay to do his best to compensate both Mrs. Simpson and her husband for the misfortune which he had inadvertently brought upon them. His Lordship added that he thought the defendant would stand much better with the world at large and with the jury than if he had insisted upon a verdict or had refused to make any compensation, and that he trusted what had happened, seeing that it rose from an accidental circumstance, would do him no harm in his profession, and that he would not be a sufferer further than he already had suffered by the unfortunate accident which befell him. A juror was then formally withdrawn.

We believe, but we are open to correction, that the defendant inadvertently communicated a disease to the female plaintiff which he had contracted through a wound on the finger. It is doubtful, as the Lord Chief Justice said, whether he was legally responsible for that which was clearly accidental, and from the consequences of which he suffered as much, if not more, than the plaintiffs. The remarks of the Lord Chief Justice in his summing up are worthy of that eminent judge. Mr. Davey has retired from this most unpleasant and unfortunate proceeding in a manner which entitles him to high commendation; and we sincerely trust that his position as a medical practitioner will not suffer in any way. On the contrary, his conduct ought to, and we hope will, raise his character as a conscientious and honourable man.

## OBITUARY.

### SIR JAMES RANALD MARTIN, C.B., F.R.S.

One of the most energetic, worthy, and able medical statesmen has just departed from amongst us. Sir James Ranald Martin, C.B., F.R.S., died last week, at an advanced age, at his house in Upper Brook-street. He was descended from a family, one of the oldest, in the Isle of Skye, his birth-place. It is worthy of mention that the Isle of Skye has ever been noted for the energetic character of its inhabitants. Within the last forty years it has furnished for the public services twenty-one lieutenant-generals and major-generals, forty-five lieutenant-colonels, 600 majors, captains, licutenants, and ensigns, and 10,000 foot soldiers, all of the most choice description of men. Within the same period this island furnished four governors of British colonies, one Governor-General of India, one Adjutant-General of the British Army, one Chief Baron of England, and one Judge of the Supreme Court of Scotland. In consequence of the death of his mother, the family removed in the early part of this century to Inverness, when James and his brother Norman were placed in the Royal Academy of that town. When he reached the age of sixteen, it became a question what profession James should enter. His father and maternal grandfather were anxious he should go into the army, but after a painful struggle a compromise was effected that he should become a surgeon and enter the army in that capacity. His studies at the Academy went on, and to them were added, during his last two years of residence at Inverness, elementary instruction in pharmacy under the direction of Drs. Robertson and MacDonald. In 1813 he entered himself as a perpetual pupil at St. George's Hospital, London. He was first under Sir Everard Home, and subsequently under Mr. Brodie, carrying on his other medical and surgical studies in the school at Windmill-street superintended by Messrs. Wilson and Charles Bell. The dissecting-room was under the superintendence of Mr. John Shaw, to which gentleman's friendly guidance the youthful student was greatly indebted, and he ever felt grateful in after life for the invaluable services

then rendered to him by his friend and teacher. In October, 1816, Mr. Martin passed his examination at the College of Surgeons. Having visited his family in Scotland, and taken a hasty and final leave of them, he embarked for India in June, 1817, on board the *Lord Hungerford*, from London to Calcutta. He landed in Calcutta on December 2, 1817, and was immediately ordered to do duty at the Presidency General Hospital, where Europeans only are treated. Here he performed a course of some months' duration. He served in 1818 in the garrison of Fort William, to which he was shortly afterwards appointed assistant-surgeon. Here he first encountered that formidable disease, epidemic cholera. He exerted himself to the utmost for the cure and prevention of the malady. In the rainy season of this year he was ordered to the district of Cuttack, in the province of Orissa, then in a state of actual rebellion. Here he served in various mountain operations. Whilst serving with the more advanced forces of the district, the detachment became so unfit for duty that relief was ordered. General Thomas—the General commanding the division—desired Mr. Martin to state the circumstances which in his opinion caused the sickness in the detachment. He reported certain circumstances of a highly injurious character in the manner of conducting the duties and in the treatment of the men. These errors were immediately corrected by order of the General, and the troops speedily got more healthy. Whilst with this detachment a circumstance occurred which showed that courage, decision, and friendship for the soldier were innate, as it were, in Mr. Martin. It was the custom of Captain, afterwards Colonel ——, one of the worst of petty tyrants—a man of the most cold and cruel vindictiveness,—to strip and flog the Sepoys on parade, without form of trial. Whilst Mr. Martin was conducting his duties, two fine Grenadiers thus maltreated came into the hospital with their backs bleeding. They called loudly for redress, but he pointed out to them that his duties were limited to their treatment and cure, and that thus far only they were under his protection, but Lieutenants ——, commanding their companies, were bound to represent their grievance, through Captain ——, to the general officer. Such a mode of redress seemed so hopeless that the Sepoys sank back on their cots in despair. Mr. Martin thought it right to mention this circumstance publicly at the mess to Captain ——, whose brutal reply was characteristic of his petty and tyrannical mind, "By ——, I will have them out to-morrow and flog them again." "Then, Sir," said Mr. Martin, "it will be at your peril, for I will instantly report the circumstance to the general officer commanding." Nothing arose out of this little episode, the Captain thinking it wise not to take any action in the matter.

In 1819 Mr. Martin was appointed first assistant to the General Hospital, Calcutta. Next year he was ordered to assume the charge of the Ramghur battalion then engaged in the field against the savage hill tribes in the mountains of Singboom and Sumbhulpore, in the unhealthy province of Gundwana. He contracted jungle fever, from which he suffered for nearly ten months. During this illness he suggested the removal of the troops to a dry and elevated position. This soon checked the sickness. In 1821 he was in Calcutta again, and suggested various improvements in the regimental hospital and the men's huts, and other sanitary measures. These were all adopted by the Governor-General, the Marquis of Hastings. At this time he was so debilitated by the fever he had suffered from that he was ordered to the Mauritius for change. He returned to Calcutta in 1823. Mr. Martin served afterwards in the Burmese war, and not unfrequently took the part of a combatant officer in addition to that of surgeon. During this campaign he gave many instances of his sagacity, personal bravery, and self-abnegation.

In 1826 Mr. Martin settled down in Calcutta, and was soon fully occupied in a most lucrative practice—the largest in the great capital of the East. The same year (1826) he married a daughter of Colonel Paton, C.B., Quartermaster-General of the Bengal Army. In 1828 he was appointed Presidency Surgeon; and the same year, on the retirement of his friend Mr. Nicolson, he was elected Surgeon to the Native Hospital of Calcutta. It was at this institution, in 1832, that he originated and performed his now generally adopted operation for the radical cure of hydrocele by a *retained* injection of diluted tincture of iodine. Mr. Martin continued in practice at Calcutta until 1840, when the state of his health was such that he was ordered to England. During that long period he was originating and carrying out various schemes for the improvement of the health and condition of both soldiers and civilians. A reference to his works appended will show how many and laborious were his undertakings. Previous to his leaving Calcutta, a meeting of his friends and patients was held, at which various resolutions were passed, and a testimonial, accompanied by an address, voted unanimously. The testimonial was to consist of a piece or pieces of plate of the value of 400 guineas, to be manufactured by Rundell, Bridge, and Co., of London.

On coming to London, Mr. Martin consulted Dr. James Johnson, who strongly advised him to stay in this country, and said that "going back to India would be murder." Under these circumstances, Mr. Martin resolved to stay here, and took a house in Grosvenor-street, with the view of practising. His old Indian friends soon crowded round him, and he had very soon as much practice as he could get through. He was not idle in other ways. He published a series of lectures in the *Lancet* "On the Diseases of Tropical Climates," and edited Dr. James Johnson's work on that subject.

An ardent admirer of Robert Jackson, he jointly edited with J. Grant, "Jackson on the Formation, Discipline, and Economy of Armies." He published several other works mentioned in the subjoined list. When the Medical Council of India was established, Sir R. Martin was appointed Physician to it. His life was one of unceasing industry and usefulness. He was peculiarly a sanitary surgeon, more particularly with reference to the army, and has not been inappropriately called the "soldiers' friend." Sir Ranald Martin died on November 27, at Upper Brook-street, at an advanced age (having been in practice to within a few days of his days), of acute bronchitis. With respect to so remarkable a man, it may not be out of place to transfer from the "Medical Directory" to our pages the following summary of his titles, works, and appointments:—

"F.R.C.S. Eng. (Hon.), 1843, M.R.C.S. Eng., 1814, (*St. Geo.*); F.R.S.; F.S.A.; Med. Staff Bengal Army (retired); Phys. to Sec. of State for India in Coun.; Inspect.-Gen. Army Hosps. (by Brevet); Pres. Lond. Med. Board for Exam. of Officers of H.M.'s Indian Services; Mem. Senate Roy. Victoria Hosp., Netley; Mem. Permt. Army Sanit. Commiss., War Office; Fell. Roy. Med.-Chir. and Statist. Socs. Lond.; Fell. Roy. Asiat. Soc. Gt. Brit. and Irel.; Mem. Asiat. Soc. and Med. Phys. Soc., Bengal, and of Bombay; Fell. Buda-Pesth Soc. of Phys.; formerly Garr.-Surg. and Surg. Gen. Hosp., Calcutta; Surg. Gov.-Gen.'s Body-Gd. in two campaigns during first Burmese war (medal and clasp); Pres.-Surg. and Surg. Native Hosp. Calcutta. Origin. of the Great Central Fever Hosp. Calcutta. Author and origin. of System of Sanit. Reports ordered for three Pres. of India; of sanit. inq. and sanit. improv. Calcutta, 1835; 'Official Rep. on Med. Topog. and Clim., Calcutta, with Notices of Preval. Dis.,' 1839; 'Reports on Sanit. Condition of Lab. Pop.,' 1842, as Mem. of Health of Towns' Com.; origin. of office of Med. Offs. of Health for Eng. and Wales; Joint Edit. with the late J. Grant, of 'Jackson on the Formation, Discipline, and Economy of Armies,' 3rd edit. 1845; 'Summary of Claims of Med. Offs. Army and Navy to Milit. Rewards and Distinct.' 1849; sugg. to Govt. of India, Aug. 1857, a Detailed Plan for a scientific and practical Exam. of the Mountain Climates throughout India, with a view to benefit British Garrison serving there; in 1857 app. Mem. Roy. Com. for Inquiry into Regul. affecting the Sanit. Cond. of Army, the Organis. of Milit. Hosps., and Treat. of Sick and Wound., and suggested Appt. of Army Med. Offs. of Health, also Appt. of a Counc. in aid of the Direct.-Gen. of the Army Med. Departm. Lond.; in 1858 app. by E.I.C. Mem. of Commis. of R.C. Phys. to estab. uniformity in Nomencl. of Dis. and in Forms of Records; in 1859 app. Mem. Roy. Comm. for Inq. into best means for Maint. and Improv. Health of all Ranks of H.M. Forces in India, etc.; 'Influence of Trop. Climates in producing the acute Endemic Diseases of Europeans, including Pract. Obs. on Nature and Treat. of their Chronic Sequelæ under Influence of Clim. of Europe,' 2nd edit. 1861; article 'On Hospitals' in 'Holmes' Syst. of Surg.' 1864-71. President of Committee for preparing Pharmacopœia for British India, 1865."

In person, Sir R. Martin was above the average height, being somewhat over six feet, firmly and strongly built, with a thorough military air and appearance. He had a good-sized head, and a most intelligent expression of countenance. Indeed, up to within a recent period he was a remarkably handsome man. His manners were genial and fascinating. He was a perfect gentleman in every sense of the word.

J. F. C.

## WILLIAM HARGRAVE, M.B. Dub., Fellow and ex-President R.C.S.I.

Only a few weeks have passed since it became our melancholy duty to chronicle the death of Arthur Jacob in a ripe old age. We have now to record the death of one of his contemporaries, William Hargrave, who passed away, at the age of seventy-nine years, on November 24. Born at Cork in 1795, Hargrave in due time resolved to follow the medical profession. Accordingly, he was apprenticed to the late Sir Philip Crampton, studied at the old Meath Hospital in the Coombe, and obtained the licence of the Royal College of Surgeons, Ireland. As an illustration of the relations existing in bygone days between masters and apprentices, it is told of Hargrave that one day he was introduced to Mr. (afterwards Sir Philip) Crampton, and witnessed the paying down of an apprentice fee of 150 guineas. After that interview he so seldom saw his master that, on calling upon him prior to going in for his final examination, he was at first not even recognised! Possessed of the licence of the Irish College, young Hargrave subsequently repaired to Edinburgh, where he studied for some time. On his return to Dublin he took the degree of Bachelor of Medicine in the University of Dublin. Still later he visited Paris (where he studied under Dupuytren, Laennec, and others), Germany, Switzerland, Italy, and Greece. In two years he commenced to practise in Dublin, and as an instance of his professional zeal it may be mentioned that he fitted up a private anatomical theatre at the rear of his own house, where he gave instruction to a large number of pupils. His energy and attainments in time secured for him a large amount of professional success. He was appointed to the Chair of Surgery in the School of the College of Surgeons, of which he was ultimately chosen President, and was for many years Surgeon to the City of Dublin Hospital. After the passing of the Medical Act of 1858 he was selected as representative on the General Medical Council of the Royal College of Surgeons, a post he continued to fill to within a year of his death. Dr. Hargrave's private character won him many friends, and the numbers who attended his funeral—including one hundred students of the City of Dublin Hospital and nearly all the leading members of the profession in Dublin—bore witness to the esteem in which the deceased was held.

## FREDERICK WILLIAM LE GRAND, M.D., F.R.C.S.E.

Frederick William Le Grand, M.D., F.R.C.S. Edin., Deputy Inspector-General of Hospitals and Fleets (retired) Royal Navy, died on November 4, at his residence, 22, Manor-road, New-cross, aged sixty-nine.

His paternal ancestors were Huguenots, who settled in Ireland. He studied medicine at South Infirmary, Cork, and also in Dublin. In May, 1827, he received the diploma of the College of Surgeons, London, and entered the Royal Navy in February, 1828. He was appointed Assistant-Surgeon to H.M.S. *Victory* the same year; was thence transferred to Haslar Hospital; but again, in 1829, served in the *Comet*, tender to H.M.S. *Maidstone*, flag-ship, at the Cape of Good Hope. In July, 1830, he served in Admiral Sir Edward Owen's flag-ship H.M.S. *Southampton* in the East Indies. We find him in H.M.S. *Crocodile* in 1831-32, and in 1833 in H.M.S. *Volage*, where he passed for the rank of Surgeon. While in this ship he was present at the outbreak of plague in Constantinople. In May, 1836, he was appointed to the Naval Hospital, Malta, under the late Sir John Liddell, M.D. While there, in 1839, he was specially promoted to the rank of Surgeon for his very arduous duties during the outbreak of cholera. In November, 1839, he was appointed to H.M. steam frigate *Cyclops*, and, under the late Admiral Sir Horatio Austin, K.C.B., served in her during the Syrian War, 1840; he also had medical charge of numerous sick and wounded belonging to other ships of the squadron. In 1844 he was appointed to H.M.S. *Fox* (Commodore Sir Henry Blackwood, Bart.), with whom he served in the East Indies until 1848. During the next four years he had charge as Surgeon-Superintendent of three convict ships in succession, taking some 1000 convicts to Australia and Van Diemen's Land, circumnavigating the globe three times in three years. Next, in 1853, he was appointed to H.M.S. *Duke of Wellington*, 131 guns, 1200 men, under Commodore Sir Henry Martin, Admiral Sir Charles Napier, and Admiral Sir Richard Dundas. During the Russian War he served in the Baltic; was present at the taking of Bomarsund; and was made Acting Deputy-Inspector in 1855. Having suffered severely from exposure on duty in an open boat off Nargen, he was invalided home, and appointed to Haslar Hospital as Surgeon and Medical Storekeeper. Early in 1858 he received an appointment to H.M.'s Dockyard, Deptford, where he remained until his compulsory retirement, at the age of sixty years, with rank of Deputy-Inspector of Hospitals and Fleets, in November, 1864. He was a Fellow of the Royal College of Surgeons of London, had received three war medals, and was at his death in receipt of a Greenwich Hospital good service pension. He was remarkable, especially in his younger days, as a very skilful operator.

## SURGEON-GENERAL J. BENT, C.B.,

Principal Medical Officer at Aldershot, died at his residence, at the Camp, on the 23rd ult., aged fifty-eight. He entered the army as Assistant-Surgeon in 1838, was promoted Surgeon in 1852, Surgeon-Major in 1855, and Deputy Inspector-General in 1862. He served in the Crimea from April 30, 1855, to the close of the war, and obtained the medal and clasp for Sebastopol, the Turkish medal, and fifth class of the Mejidié. The deceased was buried at Aldershot on the 27th ult. with full military honours.

# MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 26 :—

Owen, William, Victoria Ebbw Vale, Monmouth.
Young, Patrick Percy, Winchester-street, Pimlico.

The following gentlemen also on the same day passed their primary professional examination :—

Norris, Richard Hill, Queen's College, Birmingham.
Taylor, Henry Cumberland, Guy's Hospital.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Benham, William T., M.D., M.B., C.M., M.R.C.S. Eng., L.S.A., Assistant Medical Officer and Pathologist to the West Riding Asylum—Physician-in-Chief to the Chilian Government Asylum at Santiago.

Flinn, David Edgar, L.K.&Q.C.P.I., L.R.C.S.I.—Medical Officer for the Lamplugh District of the Whitehaven Union, *vice* Dr. John Morrow, resigned.

Hughes, Posthumous Walter, L.R.C.P. Edin., L.R.C.S.E.—Resident Medical Officer of the Carmarthen Infirmary, *vice* Richard Williams, L.R.C.P. Edin., M.R.C.S.E., resigned.

Laidlaw, W. G., M.D., C.M.—Acting Medical Officer to the Wirral Hospital and Dispensary for Sick Children, Birkenhead, *vice* W. Bell, M.R.C.S. Eng., L.S.A., resigned.

Lupton, Harry, M.R.C.S. Eng., L.S.A.—Medical Officer for the Alverton District of Stratford-on-Avon Union.

McClure, Thomas, L.R.C.P. Edin., L.R.C.S.I.—Medical Officer for the Second District of Axbridge Union.

Robertson, Edward Bruce, M.B., M.S.—Surgeon to the Stepney Union Workhouse.

Smith, Alfred Pemberton, L.R.C.P. Edin., L.F.P.S. Glasg., L.M.—Medical Officer of the Shawbury District of Wem Union, *vice* Mr. A. P. Rayner, deceased.

Taylor, Frederick Eyres, M.R.C.S. Eng., L.S.A.—Medical Officer of Health for the Urban and Port Sanitary Districts of Wells, Norfolk.

Thomas, Wm., F.R.C.S.—Honorary Acting-Surgeon to the Birmingham and Midland Free Hospital for Sick Children.

### NAVAL APPOINTMENTS.

Admiralty.—In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Staff-Surgeon of the Second Class George Bellamy has been placed on the Retired List of his rank.

### BIRTHS.

Gulland.—On November 27, at Burnley, the wife of Surgeon-Major Gulland, M.D., 15th Brigade Depôt, of a daughter.

Skimming.—On November 30, at Tudor Lodge, East Moulsey, the wife of Robert Skimming, M.D., F.R.C.S., of a daughter, stillborn.

Taylor.—On November 24, at Freshwater, the wife of Herbert Taylor, M.D., of a son.

Wright.—On November 21, the wife of Poyntz Wright, M.R.C.S., of a daughter.

### MARRIAGES.

Brown—Brown.—On November 28, at Eaton Bishop, Hereford, W. W. Brown, Esq., of Falklands, Dorking, to Catherine, widow of I. Baker Brown, F.R.C.S.

BUSHELL—MATHEWS.—On November 28, at St. George's, Bickley, Stephen Wootton Bushell, M.D. Lond., B.Sc., Physician to H.B.M. Legation, Peking, to Florence Jane, eldest daughter of Robert Mathews, Esq., Bickley, Kent.

BYRNE—EYKYN.—On November 26, at Budock, Cornwall, Dr. Theodore Edgar Dickson, eldest son of John William Byrne, Esq., J.P. (of Elshielshields Towers, Dumfriesshire, and Drumness, Kirkcudbright), Redlands Park, Clifton, to Ellen Susanna Warner, only daughter of Edward Hodge Eykyn, Esq., of Woodfield, Penryn, Cornwall.

MAGILL—MAVIN.—On November 25, at Embleton, Northumberland, William Selwyn Magill, M.D., to Margaret Frances, only child of the late George Mavin, Esq., of Embleton North Farm.

NICOL—BATES.—On November 26, at the parish church of Wooton St. Lawrence, Donald N. Nicol, M.A. Oxou., barrister-at-law, only son of John Nicol, M.D., of Ardmarnoch, Argyllshire, to Ann Millicent, daughter of Edward Bates, M.P., of Manydown Park, Hants.

POOLE—FENWICKE.—On November 26, at the parish church, St. Marylebone, the Rev. F. J. Poole, M.A., Vicar of Bishop Monkton, to Alison, M.J., only daughter of the late James Thomas Fenwick, M.D., of Bolton Hall, Northumberland.

REYNOLDS—MILLER.—On October 30, at Kurrachee, Captain Edward Swatman Reynolds, 1st Scinde Horse, son of the late Rev. C. Reynolds, Rector of Great Franshaw, and Lower Brandon, Norfolk, to Mary, younger daughter of J. R. Miller, M.D., Deputy Surgeon-General, Bombay Army.

## DEATHS.

BENT, JOHN, M.R.C.S. Eng., Surgeon-General Army Medical Department, at Aldershot, on November, 23, in his 58th year.

DUFF, JOHN, M.D., Surgeon-Major Royal Artillery, at Edderton, Tain, N.B., on November 18.

FIELD, ANN SOPHIA, widow of Henry Cromwell Field, Esq., formerly Resident Medical Officer at the Charterhouse, at her residence, Glen View, Hastings, on November 23.

HAWES, ROBERT, M.R.C.S. Eng., L.S.A., at Wimborne Minster, on November 26, in his 75th year.

HILL, JANET RAMSAY, widow of the late Ninion Hill, M.D., at Levanne House, near Gowrock, Renfrewshire, on November 26.

MARTIN, SIR J. RANALD, C.B., F.R.C.S. Eng., F.R.S., F.S.A., at 37, Upper Brook-street, W., on November 27.

SCOTT, LYDIA, widow of the late David Scott, Surgeon H.E.I.C.S., at St. John's-wood, on November 24, aged 74.

SEYMOUR, MARIA, widow of the late Edward James Seymour, M.D., F.R.S., at Surbiton, on November 24, in her 78th year.

SMALLMAN, JOSEPH CLEMENT BRUCE, M.D., M.R.C.S., L.M., L.S.A., of Willingham-by-Stow, near Gainsborough, at Lincoln, on November 23, in his 41st year.

STEWART, FRANCES ELIZA, widow of the late Alexander Stewart, M.D., Inspector-General of Army Hospitals, at 15, Kensington-park-road, Notting-hill, W., after three days' illness, on December 1.

SUTHERLAND, WILLIAM, M.D., L.R.C.S. Edin., L.M., L.S.A., at George-street, Croydon, on November 25, in his 63rd year.

WILSON, EDWARD, ouly son of the late J. B. Wilson, M.R.C.S., at Whitehaven, on November 29, aged 25.

WILSON, WILLIAM T., L.K.Q.C.P.I., M.R.C.S. Eng., L.A.H., late Staff Surgeon H.M.S. *Iron Duke*, at 37, Bryanston-street, Portman-square, on November 29.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRIDGNORTH INFIRMARY AND DISPENSARY.—House-Surgeon. Applications, with testimonials, to the Honorary Secretary, on or before December 8.

DISTRICT INFIRMARY, ASHTON-UNDER-LYNE.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, on or before December 14.

GAINSBOROUGH UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. T. H. Oldman, Union Offices, Gainsborough, on or before December 7.

GLOUCESTER INFIRMARY.—Surgeon and Assistant-Surgeon. Candidates for these appointments must be F. or M.R.C.S. Applications, with testimonials, to the Secretary, on or before December 31.

NOTTINGHAM GENERAL HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before December 16.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.—Senior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before December 9.

ST. JAMES'S, WESTMINSTER.—Medical Officer of Health and Analyst. Candidates must be duly qualified. Applications, with testimonials, to Mr. G. Buzzard, Vestry Clerk, Piccadilly, W., on or before December 9.

TRINITY COLLEGE, DUBLIN.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

WESTERN GENENAL DISPENSARY, MARYLEBONE-ROAD, N.W.—Physician. Candidates must be F. or M.R.C.P. Lond., and registered. Applications, with testimonials, to the Secretary, on or before December 11.

WOOLWICH UNION, KENT.—Assistant Medical Officer to the New Infirmary at Plumstead. Candidates must be duly qualified. Applications, with testimonials, to Mr. E. Brough Sargent, Clerk to the Board, Union Offices, Plumstead, S.E., before December 10.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Bridgwater Union.*—Mr. C. F. Buchan has resigned the Second District; area 8548; population 5388; salary £70 per annum.

*Castle Ward Union.*—Mr. A. D. Fraser has resigned the Ponteland District; area 19,832; population 2083; salary £20 per annum. Also the Workhouse; salary £30 per annum.

*Chorlton Union.*—Mr. D. Walshe has resigned the Workhouse; salary £200 per annum.

*Daventry Union.*—Mr. Charles Bennett has resigned the Second District; area 6694; population 1897; salary £25 per annum.

*Gravesend and Milton Union.*—Mr. Charles G. Firman has resigned the Milton District; area 858; population 13,073; salary £70 per anuum.

*Richmond (Surrey) Union.*—Dr. Maybury has resigned the Richmond District; area 2000; population 15,793; salary £100 per annum.

*Scarborough Union.*—Dr. Carr has reigned the Sherburn District; area 13,288; population 1442; salary £30 per annum.

*Sevenoaks Union.*—The Second District is vacant; area 5400; population 4042; salary £70 per annum.

### APPOINTMENTS.

*Coventry Union.*—John G. Overton, M.D. Edin., M.R.C.S. Eug., L.S.A., to the Third District.

*Driffield Union.*—John Dickson, L.R.C.S. Edin., B.M. Glasg., to the Frodingham District.

*Fylde Union.*—Henry Sharp, M.R.C.S. Eng., L.S.A., to the Blackpool District.

*Henstead Union.*—Acheson C. Findlay, L.S.A., to the Second District.

*Lexden and Winstree Union.*—Samuel N. Squire, M.R.C.S. Eng., L.S.A., to the Second District.

*Newport Pagnell Union.*—Charles Terry, M.R.C.S. Eng., L.S.A., to the Workhouse.

*Portsea Island Union.*—Samuel Stickland, M.R.C.S. Eng., L.R.C.P. Edin., to the Railway District.

*St. Faith's Union.*—Wm. S. Priestley, M.R.C.S. Eng., to the St. Faith's District and the Workhouse.

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THE bazaar recently held at Brighton for the benefit of the Children's Hospitals resulted in a net profit of £1601 1s. 5d.

NEW by-laws with respect to slaughter-houses, and the recommendation of the Committee that no new slaughter-houses should be established within the City or its liberties, were adopted by the City Commissioners of Sewers at their meeting on Tuesday.

IT seems that the experiment of training native women in Calcutta at the Medical College, as skilled midwives, is a failure. No Hindu or Mahommedan pupil came for instruction, and of the six Christians only two seem to have profited by the instruction. This is much to be regretted, but scarcely to be wondered at, considering the illiterate state of the pupils. One may well despair of teaching midwifery to women who can neither read nor write. Popular education is needed, not only for the efficiency of midwives, but for the intelligent appreciation of the value of human life.

NEW MODE OF MEASURING THE LOWER EXTREMITIES.—Place the feet equidistant from the long axis of the body, and then measure from the umbilicus to the internal malleoli.—*Med. Record*, October 15.

COLLODION IN ERYSIPELAS OF FACE.—Dr. Bourdon, of La Charité, always applies flexible collodion along the circumference of the eruption, and never finds that it traverses the boundary within which it is thus inclosed. The parts already affected are red and swollen, while at their circumference the collodion forms a well-marked depression. If the disease has extended to the eyelids, the collodion must not be carried too near, as œdema may result. M. Bourdon at the commencement also gives an emetic or purgative, and throughout the course of the affection he keeps the bowels free.—*Rév. Méd.*, November 16.

DETECTION OF ALBUMEN BY NITRIC ACID.—The presence of albumen in the urine in exceedingly small quantities can be detected by making use of nitric acid in the following manner:—Fill a test-tube a third or a quarter full of urine, and when the nitric acid is added, let it run down the side of the tube drop by drop. Added in this manner, the acid will collect upon the surface of the urine, and if albumen be present, it will be recognised by the presence of a white line between the acid and the urine, which will be delicate in proportion to the amount of albumen in the urine. Albumen is much more certain of recognition when the acid is added in this manner than in the ordinary mode.—*Med. Record*, October 15.

TREATMENT OF ŒDEMA AND ANASARCA IN CARDIAC DISEASE.—Prof. Séc prescribes from six to ten of these pills daily:—Ext. scillæ one gramme (fifteen grains), pulv. scillæ half a gramme, m. f. pil. x.; also giving during the day from four to five grammes of bromide of potassium. The results are often nothing less than surprising, relief being obtained with great rapidity in cases even that almost seemed beyond the resources of art. The dose of squill is very large, as compared with the quantity usually prescribed; but it may be given without fear, so great is the tolerance of this medicine exhibited by persons suffering from affections of the heart.—*Rév. Méd.*, November 16.

ACCLIMATISATION OF IPECACUANHA IN INDIA.—In the last report of Dr. King, the Superintendent of the Calcutta Botanic Gardens, he states that the propagation of the ipecacuanha plant by root and leaf cuttings has been so successful that there is at present a stock of 63,000 living plants; whereas four years since there were at the cinchona gardens but twelve cuttings, of which seven were afterwards accidentally destroyed.—*Pharmaceutical Journal.*

SOLUTION OF QUININE FOR HYPODERMIC INJECTION.—D. Lente recommends the following formula as the latest improvement—quiniæ bisulph. gr. l., acid. sulph. fort. ℥v., acidi carbolici ℥ij., aqua dest. ʒj. This should be manipulated as follows:—Place the quinine (say 400 grains) in a mortar, rub up thoroughly, distributing the sulph. acid (℥xl.) over it. Rub until well mixed, and then add eight ounces of cold water. Place the mixture in a porcelain dish over a lamp, and let it come to the boiling point, stirring with a wooden spatula. When cold add the carbolic acid (℥xvi.), and shake well in a bottle. It should then be perfectly clear, though it should be filtered to separate the small foreign particles that are usually floating in it.—*Med. Record*, October 1.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Spectator.*—1. Yes. 2. March 11, 1871.

*A. Y. Z.*—There is no authoritative information on the subject.

*F. B. S.* is thanked; but it is not worth while to go into the matter.

*M. C. M.*—Dr. Robertson is the chairman of the Board of Trustees and Committee of Management of the Devonshire Hospital and Buxton Bath Charity.

*Juvenal, Devonport.*—Are the following the verses to which you refer? The two concluding lines of the epigram are really perfect:—

"How 'D.D.' swaggers, 'M.D.' rolls!
I dub them both a brace of noddies.
Old 'D.D.' takes the cure of souls,
And 'M.D.' takes the cure of bodies.

"Between them both, what treatment rare
Our souls and bodies must endure!
One takes the cure without the care;
T'other the care without the cure."

*Mr. Thompson, R.N.*—The President of the Royal College of Surgeons is Mr. F. Le Gros Clark, F.R.S.; the Vice-Presidents are Sir James Paget, Bart., F.R.S., and Mr. Prescott Hewett—representing respectively the hospitals of St. Thomas, St. Bartholomew, and St. George.

*A Tutor.*—On inquiry, we find that the rooms of Burlington House, where the preliminary examinations are held, will not be disengaged until late in the present month; hence the delay of which you complain, and which the collegiate authorities would be glad, if possible, to rectify.

*Dr. Mackenzie.*—There is a capital portrait of the late Sir Ranald Martin in the "Medical Portrait Gallery," published a few years since by Mr. Stone, of the Royal College of Surgeons. Messrs. Barraud also published a portrait of the deceased gentleman.

*A Young Member.*—It was at the "Bull's Head," in Clare-market, Lincoln's-inn-fields, where the celebrated Dr. Radcliffe was carousing when he received news of the loss of his £5000 venture, saying that he should only have to go up as many stairs to make himself whole again. The "Black Jack," in the same locality, celebrated as the haunt of Joe Miller, the comedian, is still the scene of the midnight revels of the medical students on passing their examinations at the Royal College of Surgeons.

*Mr. Jennings.*—The celebrated Dr. Johnson had the highest opinion of medical men, and showed it in a most benevolent manner, for one of his humble and most devoted friends—a Mr. Robert Levett, an obscure physician, practising among the poorer classes—was favoured by him in a remarkable way, by having an apartment assigned to him in Johnson's house, in a court in Fleet-street now named after him. Levett always waited upon him every morning through the whole course of his breakfast, which was both late and long-continued. Johnson had such an inordinately high opinion of his poor friend's abilities that he had been heard to say he should not be satisfied, though attended by the whole College of Physicians, if Mr. Levett were not among them. At the same time he afforded shelter and protection to Mrs. Williams, a blind and poor lady, the daughter of a Welsh physician.

*H. M., St. George's.*—Mr. Edward Cutler was elected surgeon to your hospital in 1843. In the current number of "The Medical Profession of all Countries," Messrs. Barraud and Jerrard have published a capital likeness and an interesting biographical sketch of this most gentlemanly member of our profession.

*A Suckling Elephant.*—During the festivities at Hyderabad attending the opening of the new railway, a correspondent of the *Times of India* had an opportunity of witnessing the spectacle of a female elephant nursing her young. The mother was a huge animal, recently caught, but soon tamed, who had given birth to a baby, now twenty days old, and of the dimensions of a Highland cow. The mother stood tranquilly eating tufts of long grass; but before putting it into her mouth she used it as a fan to drive the flies from her little one's tender skin. If the little creature helped himself to some of the grass, the mother snatched it out of his tender gums, and ate it herself. The baby helped himself to his mother's small and shapely breasts, that hung just above his head between his mother's forelegs. He twisted his trunk out of the way as he best could, and took the nipple into his mouth.

*Dr. T. C., Adelaide, South Australia.*—Thanks; the numbers will be sent. We do not consider it an accomplishment for medical men. Remember what Madame D'Arblay (*née* Miss Burney) said of the botanist Dr. Lind in writing to a friend—"He is married and settled here (Windsor), and follows, as much as he can get practice, his profession; but his taste for tricks, conundrums, and queer things makes people fearful of his trying experiments upon their constitution, and think him a better conjuror than physician; though I don't know why the same man should not be both" (vol. ii., page 303).

### THE MEDICAL CLUB.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would it not be possible to extend the scope of the above club and make it a resort for scientific (and perhaps literary) men generally, by changing its name, and starting it on an enlarged basis? I suspect that the name "Medical" has a too purely professional ring for many scientific men out of the profession to care about joining it. Many names might be suggested: it might be called the "Literary and Scientific," or simply the "Scientific" Club, or the "Civil and Military Scientific" Club, which latter name might make it an appropriate resort for engineer and artillery officers. I throw out the above suggestions for consideration in the hope that the Club, to which so many members of the medical profession belong, may some day take its place among the first in London.

I am, &c., M.D.

### THE MURRAY MEMORIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—We shall feel obliged if you will allow us space for a final statement respecting the above fund. This statement would have been made earlier, but for the delay necessarily attending the completion and erection of the memorial bust. The bust of our lamented colleague, the late Dr. John Murray, has been executed by Joseph Durham, Esq., A.R.A., and is now placed in the Museum attached to the Middlesex Hospital.

It will be in the recollection of subscribers that two funds were opened in London, one for the memorial bust, and the other for a scholarship at Aberdeen.

| | £ | s. | d. |
|---|---|---|---|
| The Amount Collected for the Memorial Bust ... ... | 221 | 14 | 0 |
| ,, ,, ,, Scholarship ... ... | 80 | 0 | 0 |
| Total ... ... ... ... ... ... ... | £301 | 14 | 0 |
| Paid to Mr. Durham for Bust and Bracket ... ... | 126 | 0 | 0 |
| Stationery, Printing, and Postage ... ... ... ... | 6 | 0 | 0 |
| Total ... ... ... ... ... ... ... | £132 | 0 | 0 |
| Received ... ... ... ... ... ... ... ... | 301 | 14 | 0 |
| Paid ... ... ... ... ... ... ... ... | 132 | 0 | 0 |
| Balance ... ... ... ... ... ... ... | £169 | 14 | 0 |

This balance, in fulfilment of the intention of the London Committee, has been handed over by us to the fund of the Conjoint Aberdeen University and Middlesex Hospital Scholarship, which now amounts to over £600.

We are, &c., CAMPBELL DE MORGAN, Treasurer.
ARTHUR W. EDIS, } Honorary
December 2. HENRY MORRIS, } Secretaries.

### THE PEN VACCINATOR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the *Medical Times and Gazette* of this morning a description is given of an instrument for vaccination, a modification of the mathematical pen, and designed by Dr. Hilliard. I can bear testimony to its utility, as I have used a similar modification for that purpose for some time past with the greatest satisfaction. My instrument differs from the mathematical pen in not having the regulating screw, which is required for distributing the ink in larger or smaller quantity according as a broader or finer line is needed. It also differs from Dr. Hilliard's pen in not having the ring regulator, the requisite quantity of virus to be distributed being regulated by the number of turns of the blades of the instrument, which are screwed into the holder, the points of which are sufficiently sharpened to scratch, and which, at the same time, deliver the lymph into the incision. I have since found that it does not require any regulating screw or arrangement for distribution of lymph provided that the points do not press too much together—that is, the pen must not be hard.

The advantages which the instrument possesses may be summed up as follows:—That much time is saved to the operator, as the instrument or pen makes the scratch and delivers the lymph at the same time, as may be sufficiently demonstrated by using a coloured fluid, as ink; and to public vaccinators it is invaluable, for when once charged the scratches may be continued as long as a particle of lymph remains. That it is almost impossible to cut too deeply (not an infrequent occurrence with restless children, and a cause of delay from bleeding and of unsuccessful vaccination). Consequently, the same care and delicacy of touch are not needed where economy in the use of lymph is of consequence, as no waste arises from its being smeared over the arm. From the facility with which the operation may be performed, suffering is lessened.

The instrument may be seen at Mr. Weiss's, in the Strand.

Sedgefield, Ferryhill, November 28. I am, &c., G. R. SHERATON.

*A Candidate.*—At the pass fellowship examination on Saturday last, six out of the ten candidates examined were rejected. The list cannot be published until it has been submitted to the Council. You can, however, sign "F.R.C.S." after your name to the document in question.

*C. C., Portsmouth.*—Russian officers who have returned from Khiva speak in high terms of the purity and salubrity of the climate.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinischo Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Bulletin Général de Thérapeutique—Irish Hospital Gazette—The Central News—Edinburgh Medical Journal—Science Gossip—Monthly Microscopical Journal—The Obstetrical Journal of Great Britain and Ireland—The Peninsular Journal of Medicine—O Correio Medico de Lisboa.

BOOKS AND PAMPHLETS RECEIVED—

Clinical Pocket-book—Dickinson's Introductory Address delivered at St. George's Hospital—Ferrier's Introductory Lecture delivered at King's College.

COMMUNICATIONS have been received from—

Mr. F. Gordon Brown, London; Dr. Crichton Browne, Wakefield; Mr. Godlee, London; Mr. G. R. Sheraton, Sedgefield; Dr. Henry B. Clarke, London; M.D.; The Registrar of Apothecaries' Hall, London; Mr. H. R. Luard, Cambridge; Dr. Tilbury Fox, Loudon; Dr. Lawson, Wakefield; Dr. Sparks, London; Dr. Dowse, Highgate; Mr. T. P. Pick, London; Mr. Henry Sewill, London; Dr. W. A. Hollis, London; The Registrar-General, Edinburgh; Mr. T. M. Stone, London; Dr. Wm. Squire, London; Mr. H. Howells, Carmarthen; Mr. G. Lawson, London; Mr. J. Chatto, London; The Secretary of the Clerical, Medical, and General Life Assurance Society.

# APPOINTMENTS FOR THE WEEK.

*December 5. Saturday (this day).*

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

*7. Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic 1½ p.m.

Medical Society of London, 8 p.m. Mr. H. Royes Bell, "On a Case of Cyst of the Lower Jaw." Dr. Routh, "On an Epidemic of Infectious Sore Throat which occurred in a Public Institution, and the probable Causes of its Production."

Odontological Society, 8 p.m. Mr. Chas. Tomes, "Studies on the Attachment of the Teeth."

Royal Institution, 2 p.m. General Monthly Meeting.

*8. Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Medical and Chirurgical Society (Ballot, 8 p.m.), 8½ p.m. Dr. George Johnson, "On the Laryngeal Symptoms which Result from the Pressure of Aneurismal and other Tumours upon the Vagus and Recurrent Nerves."

*9. Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; Loudon, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Mr. Ratcliffe, "On Plague." Dr. Dickson (of Constantinople), "On Reappearance of Plague." Drs. Schlimmel and Marroin, "On Plague in Persia and at Bengazi."

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Roper, "On the most Advantageous Method of Delivery in Placenta Prævia."

*10. Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

*11. Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Mr. Rouse, "On a Case of Aneurism." Mr. Venning, "On a Case of Syphilis with Secondary Symptoms appearing after twenty-three years."

# VITAL STATISTICS OF LONDON.

*Week ending Saturday, November 28.*

## BIRTHS.

Births of Boys, 1255; Girls, 1137; Total, 2392.
Average of 10 corresponding years 1864-73, 2330.

## DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 958 | 967 | 1925 |
| Average of the ten years 1864-73 | 789·4 | 776·4 | 1565·8 |
| Average corrected to increased population | ... | ... | 1722 |
| Deaths of people aged 80 and upwards | ... | ... | 86 |

## DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 5 | 4 | 2 | 7 | ... | 5 | 2 | 2 |
| North ... ... | 751729 | ... | 1 | 19 | 2 | 5 | 5 | 4 | 2 | 4 |
| Central ... | 334369 | ... | 1 | 6 | 1 | 1 | ... | 5 | 1 | 1 |
| East ... ... | 639111 | ... | 5 | 35 | ... | 7 | 1 | 6 | 2 | 5 |
| South ... ... | 967692 | ... | 5 | 33 | 7 | 9 | 2 | 10 | ... | 4 |
| Total ... ... | 3254260 | ... | 17 | 97 | 12 | 29 | 8 | 30 | 7 | 16 |

## METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·745 in. |
| Mean temperature | 32·8° |
| Highest point of thermometer | 43·3° |
| Lowest point of thermometer | 25·0° |
| Mean dew-point temperature | 27·8° |
| General direction of wind | S.E. |
| Whole amount of rain in the week | 0·20 in. |

## BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, November 28, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Nov. 28. | Deaths Registered during the week ending Nov. 28. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2392 | 1925 | 43·3 | 25·0 | 32·8 | 0·45 | 0·20 | 0·51 |
| Portsmouth ... | 120436 | 26·8 | 79 | 43 | ... | ... | ... | ... | 0·53 | 1·35 |
| Norwich ... ... | 82257 | 11·0 | 49 | 39 | 43·0 | 28·5 | 34·6 | 1·45 | 0·05 | 0·13 |
| Bristol ... ... | 192889 | 43·3 | 129 | 87 | 47·9 | 30·0 | 36·7 | 2·61 | 0·80 | 2·03 |
| Wolverhampton ... | 70396 | 20·9 | 49 | 34 | 46·7 | 26·7 | 33·8 | 1·01 | 1·97 | 5·00 |
| Birmingham ... | 360892 | 43·0 | 287 | 178 | 41·0 | 23·3 | 32·2 | 0·11 | 0·43 | 1·09 |
| Leicester ... ... | 106202 | 33·2 | 62 | 60 | 39·5 | 23·5 | 31·2 | −0·45 | 1·15 | 2·92 |
| Nottingham ... | 90894 | 45·5 | 44 | 42 | 39·0 | 23·7 | 30·7 | −0·72 | 0·48 | 1·22 |
| Liverpool ... ... | 510640 | 98·0 | 377 | 379 | 43·8 | 29·0 | 35·2 | 1·78 | 1·31 | 3·33 |
| Manchester ... | 355339 | 82·8 | 213 | 221 | 42·8 | 28·9 | 35·3 | 1·84 | 1·38 | 3·51 |
| Salford ... ... | 133068 | 25·7 | 95 | 84 | 42·9 | 27·8 | 34·2 | 1·22 | 1·72 | 4·37 |
| Oldham ... ... | 86281 | 18·5 | 66 | 45 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 95 | 103 | 40·3 | 26·0 | 33·2 | 0·67 | 0·49 | 1·24 |
| Leeds ... ... | 278798 | 12·9 | 205 | 162 | 41·0 | 25·0 | 32·4 | 0·22 | 0·67 | 1·70 |
| Sheffield ... ... | 261029 | 13·3 | 210 | 176 | 39·0 | 23·5 | 31·4 | 0·34 | 2·02 | 5·13 |
| Hull ... ... ... | 130996 | 36·0 | 98 | 70 | 39·0 | 21·0 | 31·5 | −0·23 | 1·15 | 2·92 |
| Sunderland ... | 104378 | 31·6 | 73 | 72 | 52·0 | 29·5 | 37·5 | 3·06 | 0·22 | 0·56 |
| Newcastle-on-Tyne | 135437 | 25·2 | 104 | 67 | 40·0 | 27·0 | 33·0 | 0·56 | 0·35 | 0·89 |
| Edinburgh ... ... | 211691 | 47·8 | 120 | 107 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 394 | 344 | 43·9 | 29·1 | 37·6 | 3·11 | 1·59 | 4·04 |
| Dublin ... ... | 314666 | 31·3 | 155 | 168 | 55·0 | 32·3 | 44·9 | 7·17 | 1·85 | 4·70 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5296 | 4406 | ... | ... | ... | ... | ... | ... |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·75 in. The highest was 30·04 in. on Tuesday morning, and the lowest 29·72 in. on Wednesday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## CLINICAL REMARKS ON THE TREATMENT OF ORGANIC STRICTURE OF THE URETHRA.

By THOMAS ANNANDALE, F.R.S.E.,
Surgeon to the Edinburgh Infirmary, and Lecturer on Clinical Surgery.

HAVING, Gentlemen, described to you, in connexion with this case,(a) the symptoms of, and means of diagnosing, an organic stricture of the urethra, I wish now to make a few remarks on the treatment of this affection. For clinical purposes I will consider the following three varieties of this condition:—1. Simple uncomplicated organic stricture; 2. Organic stricture with constantly recurring spasm or contraction; 3. Organic stricture complicated with—(*a*) retention of urine, unrelievable by the catheter; (*b*) obliteration of the urethra; (*c*) urinary infiltration, abscess, or fistulæ; (*d*) calculus in the urethra or bladder. There being no known certain and permanent cure of an organic stricture of the urethra, we must endeavour to use those methods of treatment which afford relief for the longest period, and which have been proved to be the safest in their application. As a most important assistance in any operative treatment, it is essential that the patient's general health be carefully attended to, and especially that the state of the kidneys and urine be investigated, and any abnormal condition, if possible, remedied.

A troublesome symptom in connexion with the treatment of this disease is the occurrence of rigors in some instances after the slightest interference, such as the passing of a bougie or catheter. The administration of quinine I have found very valuable in checking this symptom; and by giving five or ten grains of this drug two or three hours before the instrument is used, the rigor will often be prevented altogether or much modified. If the rigor does occur, a second dose of the quinine will certainly relieve it or lessen its intensity.

Let us now consider what treatment is most beneficial in the *first* variety I have mentioned. Gradual dilatation, such as is accomplished by the passing of bougies at regular intervals, is, in my opinion, the most satisfactory method of treating uncomplicated organic stricture, as regards both its safety and the duration of the relief which it affords.

In carrying out this method, I must express my strong conviction that the employment of metal bougies is to be preferred to instruments of a softer material. This point is a disputed one, for some eminent authorities advocate the use of the softer instruments; but my own experience is in favour of the metal bougie, care being always taken to use this latter instrument gently, and with the remembrance that such an instrument will, if roughly or improperly handled, do much injury. In carrying out gradual dilatation, the instruments should be passed at intervals of two, three, or four days, according to the amount of irritation which follows the proceeding; and it is often a useful assistance to have the bowels opened by some mild laxative or enema on the morning of the operation. In treating very tight strictures it is best to employ in the first instance a small catheter in preference to a bougie; and if there is any difficulty in introducing the instrument it should be tied in for twenty-four or forty-eight hours, and the dilatation with bougies commenced the day following its removal.

Holt's, Thompson's, and the other methods of immediate dilatation or rupturing the strictured urethra or structures surrounding it (the instruments for which you see here) may be employed in this class of stricture; but my experience is that recontraction follows all these methods much sooner than when the gradual dilatation is employed; and that therefore, unless it is of consequence that the stricture should be quickly dilated, it is better to take a little more time and cure the condition more effectively by means of the bougies.

The *second* class of organic stricture is one always most troublesome to the surgeon. Gradual dilatation has only a very temporary effect in cases of this kind; and if this treatment and a careful attention to the general condition fail to relieve the patient, I have no hesitation in strongly recommending the operation of internal division, as I have found it the most efficient in relieving this form of stricture. The instrument which I have used for the last five years is the one which I show you. I obtained it from New York, and you will find it figured in Dr. Gouley's recent work on this subject. This instrument is, in my opinion, the best which has yet been suggested, and the results obtained with it have given me the greatest satisfaction.

After the stricture has been incised, the urine should be drawn off regularly twice a day with a No. 10 or 12 catheter for the first three or four days, and after this a No. 10 bougie should be passed at least once a week for two months. Holt's or Thompson's instrument may be used to forcibly stretch this class of stricture, but my observations have taught me to prefer internal division because it gives more decided and lasting relief.

The *third* class of strictures is most effectually treated by the operation of external division; for it is only in this way that many of the complications can be got rid of. If the complication is not excessive, as in the case of a fistula without much thickening of the surrounding textures, gradual dilatation should be first tried, and may prove successful; but in all cases where the complication is a serious one, or when other methods have failed, external division is a most valuable and successful method of treatment, and should be employed if the patient's condition admits of an operation.

The staff suggested by the late Mr. Syme is a most useful instrument in experienced hands, but there are cases in which this instrument cannot be used satisfactorily. For instance, when a portion of the urethra is obliterated, or when there are numerous false passages, this instrument is useless; and a much more successful proceeding is to introduce a full-sized bougie or catheter, and, having passed its point down to the stricture, to open the urethra immediately anterior to it, expose the strictured part, and divide it on a director or by passing the knife on in the direction of the urethra. After the operation a No. 10 silver or elastic catheter should be fastened in the bladder, and retained there for three days. After the withdrawal of the catheter a No. 10 bougie should be passed regularly twice a week until the wound is healed, and for at least two months longer. If the complication depends upon the presence of a calculus in the urethra, this operation will admit of its being removed; and if the stone is lodged in the bladder, and not of very large size, it can also be removed by carrying the incision backwards through the membranous part of the urethra.

In making these remarks upon this important surgical disease I have not attempted to quote authorities or opinions on the subject. My object has been to teach you the practice which those of you who attend my wards will see carried out, and to express to you the conclusions I have come to as a result of my experience in the treatment of a large number of cases of stricture of the urethra. Having at the commencement observed that no treatment of stricture of the urethra is certainly permanent in its results, I will conclude by advising you to keep this fact in remembrance, and to take precautions in treating this disease to counteract, by the occasional passage of a bougie and attention to the patient's general condition and habits, the recontraction which so frequently follows, sooner or later, even in cases most carefully treated.

(a) Case of tight organic stricture of the urethra.

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ROYAL SEA-BATHING INFIRMARY.—We are glad to hear that an effort is being made for the benefit of this excellent institution. The long list of stewards, including the most distinguished members of the profession, will no doubt insure the success so much needed and so thoroughly deserved.

AT the meeting of the governors of the Exeter Dispensary to elect a successor to Mr. John William Harris, an address, handsomely illuminated and framed, was presented to that gentleman. It was as follows:—"The Committee of the Exeter Dispensary cannot accept the resignation of their tried and valued friend, Mr. Harris, without putting upon record an expression of the sense they entertain of his long and faithful service. For twenty-eight years he has devoted much of his time, and all his skill, to the relief of the sick poor, for whose benefit the Dispensary was established; and they feel that the unusually long period of service demands from them their warmest acknowledgment. They beg that he will accept this expression of their grateful remembrance of his generous co-operation, and the assurance of their most cordial respect and esteem."

## ORIGINAL COMMUNICATIONS.

NOTES ON THE

# PATHOLOGY OF PULMONARY PHTHISIS.

By T. HENRY GREEN, M.D., F.R.C.P.,
Physician to Charing-cross Hospital, and Lecturer on Pathological Anatomy in the Medical School.

### IV.—Histology of Phthisis (*continued*).

*Small-celled Growth in Alveolar Walls—Obstruction to Circulation—Caseation or Fibrillation—Macroscopical Characters of Lung—Increase in Interlobular Connective Tissue—Fibroid Induration of Lung—Changes in Bronchi—Bronchial Catarrh—Small-celled Infiltration of Bronchial Wall—Chronic Peribronchitis—Adenoid Growth outside Bronchi—Thickening of Bronchial Walls—Ulceration—Suppuration—Secondary Changes in Pulmonary Tissue.*

3. *A Thickening of the Alveolar Walls by a Small-celled Lymphoid Tissue.*

This is very constantly associated with the former intra-alveolar changes. In its histological characters the new tissue is precisely similar to that which has been already described as occurring in the miliary nodules met with in the lungs in acute tuberculosis. Like this, it originates from the connective-tissue cells of the alveolar walls, and is composed of small spheroidal elements resembling lymph-corpuscles grouped within the meshes of a more or less distinct reticulum. The characters of this small-celled growth vary, however, in different cases and in different portions of the same lung. In some the reticulum is exceedingly delicate, and the lymphoid corpuscles make up nearly the whole of the growth; whilst in others the reticulum is much more marked, and many of the cells are more or less distinctly branched or spindle-shaped; in short, it is perfectly evident that the new tissue frequently exhibits a tendency to become developed into a fibrillated structure. As the development of this tissue proceeds in the alveolar walls it gradually obliterates and replaces the alveolar cavities, so that whilst in some portions the thickened alveoli will be found still containing epithelial elements or giant-cells, in others large tracts will be seen consisting almost entirely of the small-celled growth. Associated with it there are usually varying quantities of black granular pigment.

The development of this new growth in the alveolar walls leads to the partial or even complete obliteration of the pulmonary capillaries. The manner in which this obliteration is effected is best observed in vessels situated in the vicinity of the more completely consolidated tissue, where the development of the growth is only commencing to take place. Here the smaller branches of the pulmonary artery may be seen either partially or wholly surrounded with the small-celled tissue, which, as it increases, appears to compress and gradually to diminish the calibre of the vessel. This vascular obliteration has recently been especially insisted upon by Professor Buhl(a) and Dr. Wilson Fox. Dr. Fox states that it is mainly due to a proliferation of the nuclei in the walls of the capillaries.(b) That this proliferation is of very constant occurrence I am not at present, from my own observations, able to express an opinion, but the adenoid growth outside the vessels is, I think, invariably to be found in all cases of phthisis, except those which are the most acute. In the most acute forms of phthisis, I would again state, there is no appreciable alteration in the walls of the alveoli, and no growth around the vessels, although there is usually complete arrest of the circulation in different areas of the consolidated lung. To this vascular obstruction allusion will again be made in a subsequent paper.

The changes which may subsequently take place in this small-celled growth are, as has already been indicated, of two kinds. It may either quickly undergo retrogressive metamorphosis, or become developed into a fibrillated tissue. The fibrillated tissue, although it may remain as a more or less permanent structure, frequently, owing to insufficient vascular supply, undergoes in its turn retrograde changes, and becomes caseous. These two kinds of changes are very often found taking place simultaneously in different portions of the consolidated lung. In those portions in which the new tissue is undergoing retrograde changes, it, together with the cells which may be contained within the alveoli, will be seen to have become converted into a structureless granular *débris*, in which the outline of the cellular elements is no longer distinguishable, whilst perhaps in immediate vicinity to these more degenerated portions will be found a distinctly fibrillating structure.

Respecting the alteration which the growth of this small-celled tissue produces in the physical characters of the pulmonary consolidation, it may be stated generally that it usually leads to more or less induration. The extent of this induration, however, will vary with that of the fibrillation of the new tissue. If the tissue be almost entirely cellular, such as it is in its earlier stages and when it is very rapidly developed, it will produce but little, if any, induration of the pulmonary consolidation, which, consisting mainly of the intra-alveolar accumulations, will be soft and friable in consistence much resembling that which has been already described. When, on the other hand, as is more frequently the case, there is any fibrillation of the new growth, or its reticulum is dense and abundant, there will be a corresponding induration of the consolidated tissue. In many cases these changes produce uniform tracts of indurated consolidation of a greyish colour mottled with black pigment, in which there may be scattered here and there yellowish patches corresponding to those portions which have undergone retrogressive fatty changes.

4. *An Increase in the Interlobular Connective Tissue.*

This is met with to a greater or less extent in most cases of pulmonary phthisis, but especially in the more chronic forms. By the interlobular connective tissue I mean that tissue more particularly which supports the bronchi and larger bloodvessels. It is obvious that between this and the more delicate structure which constitutes the walls of the air-vesicles there is no histological line of demarcation; the one passes imperceptibly into the other. At the same time it is advisable to speak of them separately in describing morbid changes in the lung, inasmuch as not only does the part which they respectively play in the production of the pulmonary consolidation differ in different cases of phthisis, but the new growths to which they give origin present certain differences both in their histological characters and in their pathological tendencies.

With regard to the histological characters of the new growth which originates from the interlobular tissue—although in the earlier stages of its development, when it is richly cellular, many parts of it may be indistinguishable from the growth in the alveolar walls—its structure is for the most part less markedly adenoid than the alveolar growth, more closely resembling that which is met with as the result of chronic indurative processes in other organs. It has also a much greater tendency to become developed into a fibroid tissue; and this tissue is rarely the seat of those secondary retrograde changes which so frequently occur in the new growth in the walls of the alveoli. As usually met with it consists either of wavy fibres or of a more or less reticulated structure, with a varying proportion of spindle-shaped, branched, or lymphoid cells. Associated with it, in most cases, are granules of black pigment. These differences in the pathological tendencies and structure of the alveolar and interlobular growths are probably mainly owing to differences in the amount of their vascular supply. Whereas in the former the vessels become obliterated in the manner already described, in the latter this obliteration is much less complete or entirely wanting.

An increase in the interlobular tissue in phthisis, inasmuch as the new tissue has so marked a tendency to become fibroid, leads to extensive induration of the pulmonary texture; and further, owing to the contraction which the tissue tends to undergo, its growth ultimately produces a corresponding contraction of the diseased lung. In all cases of phthisis in which there is either a marked thickening of the alveolar walls or an increase in the interlobular connective tissue, any cavities which may exist in the consolidated and indurated lung are characterised by the tough and fibroid character of their walls, these presenting a marked contrast to the soft friable tissue which surrounds the cavities in those cases in which the pulmonary consolidation is mainly due to intra-alveolar changes.

*Changes in the Bronchi.*

The bronchi are invariably more or less involved in pulmonary phthisis. The changes which take place in them, however, vary considerably in different cases. The changes are mainly of two kinds—a superficial catarrhal process, and an inflammatory process implicating the deeper structures of the mucous membrane and the peribronchial tissue.

(a) "Lungenentzündung, Tuberkulose, und Schwindsucht." 1872.
(b) Discussion on Anatomical Relations of Pulmonary Phthisis to Tubercle of the Lung.—*Transactions of the Pathological Society*. London, 1873.

More or less catarrh of the bronchi is constantly present in phthisical lungs. Sometimes this catarrh is general, affecting the tubes throughout the whole of both lungs, although the phthisical consolidation may involve only a much smaller area. This is especially the case in those forms of phthisis which are the most acute. In such lungs the bronchi often exhibit universally well marked signs of an acute catarrhal process, and the smaller tubes are found filled with a tenacious puriform secretion. Much more commonly, however, the catarrh is more strictly confined to such portions of the lungs as may have already become consolidated.

The appearances presented by the bronchi, and the characters of the secretion which they contain, will obviously differ according to the severity and duration of the catarrhal process. In the most acute cases, in which the catarrh has been only of short duration, beyond more or less increased vascularity of the mucous membrane and the presence of an abundant secretion rich in cellular elements, there is little that is abnormal discoverable. In these cases, on the other hand—and these are the most frequent,—in which chronicity is a prominent feature, and in which the changes in the bronchi are more particularly confined to the consolidated portions of the lung, the alterations are more marked; and it is in such cases that the deeper structures of the bronchial wall so constantly become involved.

If the smaller bronchi be examined microscopically in these more chronic cases, their walls will usually be found infiltrated with numerous small cellular elements which extend from the epithelium into the deeper sub-epithelial structures. In the smallest tubes the epithelium is sometimes destroyed, and the lumen of the bronchus completely occupied by a tenacious and richly cellular secretion. This secretion is occasionally inspissated and of a dry caseous consistence, so that the bronchus is completely occluded by it. Such inspissation and occlusion are, however, in my experience, less common than they have been described to be by some other observers. The small-celled infiltration of the bronchial wall may ultimately become developed into a more or less completely fibrillated structure, and thus is produced a thickening of the bronchus. This is the condition known as *chronic peribronchitis*.

In connexion with this small-celled infiltration of the bronchi, allusion must be made to the presence of nodules of adenoid growth, which are frequently to be seen in the immediate vicinity of the bronchial wall. These nodules are very common in phthisical lungs, and, from the description of similar nodules which are stated by Dr. Burdon-Sanderson and Dr. Klein to exist largely in the lungs of tuberculous animals, I presume that they are produced by a proliferation of the lymph-follicles which are situated in the walls of the peribronchial lymphatics. These lymph-follicles are described by Dr. Klein as existing in the wall of the lymphatic vessel between the bronchus and the accompanying branch of the pulmonary artery.(c)

These changes in the bronchial walls, which, as already stated, are principally limited to the smaller bronchi, produce important alterations, not only in the bronchi themselves, but also in the adjacent pulmonary tissue. Of the alterations in the bronchi themselves, that most constantly met with is a marked thickening and induration of their wall. This thickening is, for the most part, irregularly distributed, so that whereas some parts of the smaller tubes may be much narrowed by it, in others the lumen is unaltered or larger than natural. The bronchi which are in the neighbourhood of the consolidated tissue, and whose walls are not similarly altered, are often more or less markedly dilated. If, as sometimes happens, the bronchial secretion becomes inspissated within the thickened tubes, the latter present on cross-section the appearance of indurated nodules with caseous centres. This appearance was described long ago by Professor Virchow.

Before concluding this description of the bronchial lesions I must allude to two other processes which may result from the small-celled infiltration of the bronchial wall—viz., ulceration and suppuration. More or less ulceration of the mucous membrane is very frequently met with both in the larger and smaller bronchi. This is sometimes little more than a superficial loss of epithelium, giving rise to an irregular-shaped excoriation of the membrane. In other cases the destructive process extends into the proliferating sub-epithelial connective tissue, and a more sharply defined and deeper loss of substance is the result. This deeper ulceration often goes on hand in hand with the disintegration and softening of the adjacent pulmonary consolidation, and by this means a communication is established between the latter and the bronchial tube.

Another much less frequent result of inflammatory processes in the bronchial wall and peribronchial tissue, and one which I have only on two occasions observed, is the occurrence of suppuration. This has been particularly described by Buhl(d) under the name of "peribronchitis purulenta." He states that it consists in a purulent infiltration of the whole of the structures of the bronchial wall and of the immediately adjacent pulmonary tissue. The wall of the bronchus is softened, yellowish, and easily torn. The mucous membrane is here and there separated from the subjacent tissues, and the surrounding structures are infiltrated with pus. This peribronchial suppuration is stated by Buhl to be quite common, and he regards it as being one of the gravest complications of chronic inflammatory processes in the lungs, and as the most frequent cause of pneumothorax.

Having described the morbid processes which take place in the bronchi themselves, it remains to consider the alterations which these processes may produce in the adjacent pulmonary tissue. These alterations are very important. In the present place, however, I propose merely to allude to such histological changes in the lung as may result from the small-celled infiltration of the bronchial walls. The interference with the inflation of the air-vesicles, and the impediment to the circulation through the pulmonary capillaries which may be induced by any concomitant bronchial obstruction, will be considered in a subsequent paper.

In order to understand the alterations which the small-celled infiltration of the smaller bronchi may produce in the pulmonary tissue, it is important to bear in mind the direct histological continuity which subsists between the peribronchial and interlobular connective tissue, and also between the latter and the air-vesicles. The small-celled infiltration of the peribronchial tissue, which has been seen to be the most constant result of these chronic changes in the bronchial walls, gradually invades the interlobular tissue with which it is directly continuous, and the new interlobular growth in its turn invades the air-vesicles, producing a thickening of their walls, and ultimately completely obliterating them. There is thus a gradual invasion of the lung by a small-celled growth having its origin in the walls of the smaller bronchi. This growth has a tendency to become fibroid, and, although it presents certain variations in its histological characters, it is for the most part reticulated, the connective-tissue cells usually forming a more or less markedly adenoid structure, such as they have been seen to do when the process commences in the walls of the alveoli. The new growth not only extends laterally from the wall of the bronchus, but it also invades the air-vesicles at the termination of the bronchial tube.

Whilst the development of a small-celled growth having its origin in the bronchial walls may thus contribute to the consolidation of the lung, as it does in some chronic forms of pulmonary induration which do not come within the category of phthisis (*e.g.*, the consolidation so often resulting from long-continued bronchitis, Corrigan's cirrhosis, etc.), it must be borne in mind that in most cases of phthisis this consolidation is principally due to those processes which have already been described as commencing in the pulmonary alveoli. How far the bronchial growth may be a cause of the alveolar changes will be considered in a subsequent paper.

(*To be continued.*)

(c) Klein, "Anatomy of the Lymphatic System of the Lungs" (*Proceedings of the Royal Society*, No. 149, 1874.)

(d) "Lungenentzündung, Tuberkulose, und Schwindsucht."

(a) *Vide Edinburgh Medical Journal*, June, 1874, p. 1076—"On the Diagnosis of Cardiac Diseases."

## CASE OF SYSTOLIC MURMUR IN THE PULMONARY ARTERY.

By GEORGE W. BALFOUR, M.D.,
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The auscultatory region lying between the second and third ribs on the left side close to the edge of the sternum, usually termed the pulmonary region in speaking of cardiac auscultation, in contradistinction to the aortic region, which lies in a similar situation on the right side,(a) has been frequently called the region of romance, on account of the variety of the murmurs

audible there, which have been variously interpreted according to the views and predilections of the commentators. A more accurate differentiation of these murmurs, with due regard to their relation to the heart's rhythm and to their position of maximum intensity with reference to the anatomy of that organ, has in quite recent times resulted in the banishing of fable from this region, and in the triumph of common sense. The simple yet important division of these murmurs into systolic and diastolic is readily enough made if sufficient care be exercised. For proficients in auscultation the character of the murmur(b) is quite enough to enable us to distinguish to which category it belongs; for all others it is necessary that the heart's action be slowed to ninety beats per minute, at least, before attempting to time it by the apex-beat. With diastolic murmurs for the present I have nothing to do.

Systolic murmurs duly recognised as such, and above the third rib on the left side, will be found to have two positions of maximum intensity. In one class the position of maximum intensity is not close to the sternum, though the murmur is audible there, but about an inch or more to the left of the left edge of that bone—just where we know that the appendix of the left auricle comes up from behind, lying to the left of the pulmonary artery, and when dilated extending still further to the left as well as downwards. In these cases this murmur, which frequently passes for a pulmonary one, really depends upon mitral regurgitation, the murmur being carried upwards with the current of the blood, as was first pointed out by Naunyn.(c) In my own experience this murmur has been much more frequently observed in cases of mitral constriction than in those of simple insufficiency, except when that insufficiency has depended upon anæmia, chlorosis, or other similar spanæmic alteration of the blood, when it is almost invariably present—a fact well known to auscultators, who describe a cardiac hæmic murmur as most frequently audible in the pulmonary region. It is, indeed, heard in this situation, but its position of maximum intensity is at least an inch or from that to two inches to the left of the left edge of the sternum, just over the appendix auriculi, and it depends upon regurgitation through the mitral valve being occasionally audible over the left apex, and sometimes in both positions.

In another class of systolic pulmonary murmurs the position of maximum intensity is close to the left edge of the sternum, strictly in the region of the pulmonary artery, in which the murmur undoubtedly originates. In one readily recognised division of this class the murmur is due to malformation of the pulmonary artery or of its valve; in another set of cases the murmur is due to an altered relation between the lungs and the heart, originates in a perfectly healthy pulmonary artery, and is frequently so loud and well marked that there is little doubt it has been occasionally mistaken for serious organic disease. Of this form of murmur the following interesting example affords a very well-marked illustration:—

*Case.*(d)—J. W., aged twenty-eight, a fish salesman, admitted June 18, 1874, to bed 7, ward V., of the Edinburgh Royal Infirmary, complaining of lassitude, weakness, and pain in the abdomen. About six months previously he had pain in the chest, severe cough, night-sweats, and loss of appetite, brought on by exposure to cold and wet. Under treatment these symptoms in a great measure disappeared, but he has always since that time had some cough, and has never regained his strength. About a month before admission he first noticed a swelling in his right side, which was painless in itself, but accompanied by pain in the stomach after every meal, and occasionally at other times. The patient has always been healthy, except that in 1869 he passed through an attack of cholera, and about a year subsequently he had a fever, nature unknown. His family history is good: his father and mother, three brothers, and two sisters are all alive, and in good health. The patient states that he has never been abroad, has never suffered from ague, rheumatism, or syphilis, and has never had any suppurating wound or sore, except an occasional trifling scratch; but he has been in the habit of drinking beer and other malt liquors in large quantities. On first admission the patient was fairly developed as to muscle, but his face was thin, and his expression somewhat anxious. His temperature was 99°, his respirations 16 per minute. He had night-sweats, and occasional cough, especially at night. The hepatic region was found to be tumid but soft, and there was considerable pain on pressure just above the umbilicus.

On July 3 the patient had emaciated somewhat, his muscles were soft and flabby, sweating at night continued. Since his admission his temperature had varied from 97° to 104° in a most irregular and capricious manner, being only once 104° (on the evening of June 26), and 98° only on the preceding and following mornings, the average temperature being little over 100°; his respirations also varied, but averaged about 20 per minute. He still coughed severely at times, chiefly during the night. The thorax was well formed, and expanded apparently equally on both sides. Lung-percussion was normal. On auscultation rough vesicular breathing was heard over both lungs, both in front and behind, mingled with an occasional mucous rattle or a rhonchus. The pulse was of fair strength, 90 per minute; peripheral arteries and veins normal. There was no cardiac pain or palpitation complained of, but on inspection of the cardiac area the heart's pulsations were more apparent than usual, while between the second and third ribs on the left side, close to the edge of the sternum, distinct pulsation was observed, which seemed to propagate itself upwards to the root of the neck as a slight tremor running over the superficial parietes. At one inch from the left edge of the sternum dulness commenced at the lower border of the second rib, and extended downwards to the liver-dulness; in the intermamillary line dulness commenced at the right edge of the sternum, and extended across to the left for a distance of four inches; between the second and third ribs dulness extended to the left of the left edge of the sternum for a distance of two inches and a half. In the mitral, tricuspid, and aortic areas the normal heart-sounds were distinctly audible; in the pulmonary area the first sound was entirely replaced by a loud, rough murmur, followed by a more than usually distinct but not accentuated second sound.(e) This systolic pulmonary murmur was found to disappear completely when the patient took a deep inspiration and held his breath, reappearing at once on expiration; it was not propagated in any direction. The tongue had a white coating, with a triangular red part in the centre, the apex of which coincided with that of the organ. The patient's appetite was impaired, with a feeling of oppression over the scrobiculus cordis after meals, and much thirst. The bowels were irregular; most frequently loose. The abdomen appeared distended, and had a peculiar tense elastic feeling all over it; pressure on any part revealed slight tenderness, which culminated in positive pain at a point just above the umbilicus in the mesial line. Round the umbilicus the patient measured thirty-one inches and a half; three inches higher he measured thirty-three inches and a half, this increase being markedly on the right side, and due to bulging of the liver, which was enlarged, the liver-dulness in the mammary line measuring seven inches. This organ was soft and elastic to the touch, and slightly tender on pressure. The splenic dulness was somewhat increased. Micturition was more frequent than usual, and occasionally accompanied by pain along the course of the urethra. The urine was of a dark straw colour, with a large deposit of mucus; its specific gravity was 1015; it was acid, and averaged in quantity from fifty to sixty ounces, and contained a large quantity of albumen, but no sugar or bile. On microscopical examination, the deposit was found chiefly to consist of amorphous matter, with epithelium, and a few fragments of hyaline and slightly granular casts.

The subsequent history of the case was that of gradual emaciation and sinking, with an irregular temperature averaging about 100°, falling sometimes to 97°, and again rising to 102°; a persistence and gradual increase of the diarrhœa; a discharge of highly albuminous urine—never below thirty-five ounces, and sometimes as high as ninety ounces; a gradual but trifling accumulation of fluid in the abdomen and in the cellular tissue of the legs and feet; and latterly the development of a very slight degree of jaundice.

On July 13 it is noted that the painful spot above the umbilicus had become exceedingly tender to touch; nothing was to be felt there, but low down in the right iliac region a small limited hard patch was to be felt at the lower border of the liver.

On July 21 the systolic pulmonary murmur had entirely disappeared, and was not again heard.

The patient gradually sank, and died on July 30.

(b) *Vide loc. cit.*, p. 1083.

(c) Ueber den grund, weshalb hin und wieder das systolische Geräusch bei der mitralinsufficienz am lautesten in der Gegend der Pulmonalklappe zu vernehmen ist.—*Berliner Klinische Wochenschrift*, April, 1868.

(d) Reported by W. R. Gibson, Clinical Clerk.

(e) The element of tension being wanting.—*Vide Edinburgh Medical Journal*, June, 1874, p. 1077.

*Autopsy.*—Body much emaciated; skin and conjunctivæ somewhat jaundiced. There were pleuritic adhesions on the left side, extending down the whole thorax at the junction of the ribs with the cartilages. The fibrous sac of the pericardium was more fully exposed than usual, owing, apparently, to the lungs having collapsed very markedly when the chest was opened. Heart was of small size, weighing seven ounces. All its chambers contained decolorised blood-clot. On the anterior surface of the right ventricle there was a milk spot, which measured an inch and a half in length and three-quarters of an inch in breadth. The thickening of the pericardium at this spot was unusually marked. The chambers of the heart were all of the natural dimensions. The tricuspid and mitral valves were quite natural. The tricuspid orifice admitted four fingers; the mitral three. The aortic and pulmonary valves were competent and otherwise quite natural. A tough decolorised blood-clot occupied the pulmonary artery, and extended along its primary ramifications in both lungs. The wall of the aorta was free from atheroma and otherwise quite natural. On microscopical examination the muscular fibres of the heart were found to be quite healthy. Lungs: The left weighed fourteen ounces, the right fourteen ounces and a half; both were somewhat congested in their posterior three-fourths, and there was a little emphysema at the anterior edges of both. Abdomen: The peritoneal cavity contained rather more than two quarts of turbid serum, in which floated numerous flakes of soft recent lymph. Liver weighed six pounds one ounce and a half; its surface was smooth, but its capsule presented ramifying lines of white opacity, and in the upper surface of the right lobe there was an opaque thickening with puckered stellate edges like a cicatrix. The thickening, however, did not extend beyond the capsular surface. On section the organ presented a slightly granular aspect, and felt exceedingly tough and fibrous. It also presented to the naked eye some of the characteristic appearances of the waxy degeneration, and it gave the usual staining on the application of the iodine test, but not very markedly. On microscopical examination a very marked increase of connective tissue was observed, both within the lobules and at their peripheries. Pancreas was of natural size and healthy texture; it weighed, with a few lymphatic glands attached to it, four ounces and a half. Close above the margin of its head and upper part of body there were a great number of enlarged lymphatic glands, varying in size from that of a pea to almost that of a pigeon's egg. From the pancreas a string of these glands extended up to the liver between the folds of the gastro-hepatic omentum. The mesenteric lymphatics and the prevertebral lymphatics around the cœliac axis, and for two inches and a half below, were enlarged, and had undergone the same degeneration as those above the pancreas. On microscopical examination of the glands the lymph cells were found to have run together into waxy translucent clumps, which, as well as the vessels, took on the waxy reaction very markedly. There was no obstruction of the cystic or hepatic ducts. The spleen was much enlarged, and weighed thirteen ounces and a half. Its capsule was firm and fibrous, and the Malpighian bodies were unnaturally prominent. On using the iodine test the Malpighian bodies exhibited the staining very markedly. The kidneys were both enlarged; the right weighed eight ounces, the left seven ounces. The cortical substance was much increased, and the organs were very much congested. The Malpighian corpuscles exhibited the staining with iodine. Intestines: The mucous membrane presented the waxy reaction very markedly.

*Remarks.*—The treatment of this case presented no point of interest; nothing could be done from the first, except to ameliorate the symptoms as far as possible. The general diagnosis is also interesting only from its uncertainty, and from the peculiar balancing of the probabilities for and against certain special lesions. Thus, cirrhosis of the liver in its early stage of enlargement was determined from the first; on the other hand, the seemingly nodular patch of hardness towards the lower edge of the liver, developed in the later stages of the disease, which was also felt without being accounted for after death, coupled with the irregular fever prevailing throughout the disease, and the pain so specially marked in the scrobiculus cordis, seemed to point so strongly to the possibility of the affection being of a cancerous nature, that we were unable to arrive at any certain conclusion. The persistent diarrhœa, the enlarged spleen, and the peritoneal effusion were all in favour of a cirrhotic liver, yet could hardly be fully accounted for by mere cirrhosis in so early a stage as we had here. On the other hand, the characters of the urine were those of a waxy kidney, especially if we consider the persistence of diuresis in spite of a considerable diarrhœa and some dropsy, and yet none of the recognised causes of waxy degeneration had at any time existed in this case. A consideration of the details of the case, which are fully given, will show how impossible it was to arrive at any certainly definite general diagnosis which would embrace all the phenomena, while the results of the post-mortem examination display the causes of these phenomena without enabling us satisfactorily to account for them. It is otherwise with regard to the systolic pulmonary murmur, which a neophyte might take to be the most inexplicable of all the peculiar phenomena; but a little more experience would show him that, so far from being inexplicable in this case, this is precisely an instance which in a very striking manner confirms an explanation of such a murmur which has been already given. In 1870 Dr. Quincke, of Berlin, pointed out for the first time that when, from any cause, the lungs did not cover the pulmonary artery, then a systolic pulmonary murmur was frequently heard, and that in these cases the murmur was probably produced by the systole of the ventricles. In such a case the heart, which during its contraction has its antero-posterior diameter increased, compresses the pulmonary artery against the parietes of the thorax at each systole, instead of, as in the normal condition, merely forcing aside the overlapping edge of the lung. The blood, thus forced through an abnormally flattened artery, gives rise to a loud systolic bruit. Quincke has proved the truth of this statement by showing that, in certain cases in which the pulmonary artery was uncovered, respiration defective on the left side, and this systolic pulmonary murmur audible, the murmur ceased to be heard so soon as careful measurement showed that normal respiration was restored, while the diminution of the absolute dulness of the heart proved that the lungs had recovered their normal dimensions.(f) I have already published two very interesting cases of this character,(g) which, so far as I know, are the only English instances published of a murmur thus originating. In the present case it is noteworthy how completely the history of the case and of the murmur, as well as the post-mortem appearances, bear out Quincke's view. First we have the uncovering of the heart, and especially of the pulmonary artery, as shown during life by the markedly distinct pulsation of the heart, and particularly of the pulmonary artery, and by the increased dulness between the second and third ribs, and which was visible enough on opening the thorax after death, though by that time other causes contributed to account for this uncovering. Then we had two efficient causes contributing to prevent a complete covering of the heart during ordinary inspiration: first we had the greatly enlarged liver and the pain in the abdomen, and then we had the string of adhesions along the junction of the ribs with the cartilages on the left side, which, though not tight enough to prevent the covering of the heart to its normal extent on forced inspiration, yet, no doubt, contributed their quota in preventing full covering in the ordinarily restrained respiration of this patient. According to Quincke's view, therefore, sufficient cause was present to account for the systolic pulmonary murmur which was observed, and which, in confirmation of these views, disappeared completely when the normal relation of the heart and lungs was restored by forced inspiration, and vanished for ever whenever the atrophy of the heart was far enough advanced to render the compression of the pulmonary artery ineffective in producing a murmur.

## CASE OF ULCER OF THE STOMACH, TREATED PRINCIPALLY BY NUTRITIVE INJECTIONS.(a)

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Ulcers of the stomach vary greatly in their severity and in the symptoms they give rise to. In some the vomiting of

(f) "Beiträge zur Enstehung der Herztöne und Herzgeräusche," von Dr. H. Quincke. *Berliner Klinische Wochenschrift*, March, 1870, No. 21; also *Edinburgh Medical Journal*, January, 1871, p. 667.

(g) *Edinburgh Medical Journal*, February, 1871, p. 704 (Cases illustrative of Difficulties in Diagnosing Aneurism close to the Heart.)

(a) Read before the Medical Society of London.

blood is very large, in others it is moderate or small; in many the pain is continuous, in others only after food is taken. The cicatrisation of these ulcers depends largely on the amount of rest which can be given to the organ, and as an illustration of this the subjoined case may prove interesting :—

Mary G., aged thirty, widow, a laundry woman, was admitted into the Brompton Hospital on November 19, 1872. Her father, brother, and husband had died of phthisis, and two years ago she herself had a cough and pain in the chest lasting for some months. She recovered from this, and remained well till October 10, when she commenced vomiting blood, and had continued to do so daily ever since. The vomiting occurred generally between ten and eleven in the morning, was preceded by a pain in the left hypochondrium and a certain amount of nausea, and was not accompanied by cough. The blood brought up was clotted and dark in colour, and amounted to about an ounce at a time. She also had been vomiting her food on several occasions, this vomiting as a rule occurring about half an hour after the meal. She had been losing flesh for three months. Appetite was very bad. Bowels were irregular; tongue furred brown; catamenia irregular and scanty for the last three months; pulse 80; temperature and respiration normal; weight, 8 st. 4½ lbs. For the first week after admission she complained of pain in the left hypochondrium, but did not vomit blood; and little treatment was pursued with the exception of the bowels being relieved by aperients, and the patient being placed on a light diet comprising a large amount of milk. On the 25th, as the pain continued, a blister two inches square was applied to the left hypochondriac region, and the mistura gentiana alkalina given three times a day. On the 30th the hæmatemesis returned, and she brought up several ounces of dark blood. My clinical assistant, Mr. Williams, gave her a twenty-minim dose of oil of turpentine, which checked it. The following day (December 1) the bleeding returned, and I prescribed gallic acid in ten-grain powders every four hours; also the omission of all solid food, and the use of only liquids, such as beef-tea and arrowroot. Three days later, as the pain persisted, opium was given with glycerine, and tannic acid instead of the gallic acid, and poppy fomentations used. No blood was noticed in the stools.

December 7.—The bleeding has ceased, but she complains of great pain in the upper portion of the abdomen, chiefly in the left hypochondrium, where a distinct area of tenderness can be detected, apparently over the cardiac end of the stomach, which was more marked on deep pressure. She vomits all her food. Under these circumstances I ordered her to suck ice and to take no food by the mouth, but nutrient enemata of beef-tea, eggs, and brandy to be administered in the following proportions:—Three pints of beef-tea, six eggs, and three ounces of brandy in three injections per diem.

9th.—Has retained all the injections, but the pain still continues, and the tendency to vomit; bowels not open. I prescribed a pill containing calomel grs. ij., creasoti ℥j., ext. bellad. gr. ¼, in confection of roses, every four hours.

11th.—After taking three pills the bowels were relieved and the pain diminished; the calomel was then omitted, and the creasote and belladonna continued. At present there is no pain or sickness; tongue red and irritable; teeth and gums sore; pulse 99; skin cool. The pill was continued, and a gargle of chlorate of potash ordered.

12th.—Slept well. Vomited half a pint of fluid of a greenish colour. Pulse 100. Is free from pain, but the abdomen is very tender. In the evening she complained of great hunger, and some arrowroot was given her by the mouth, which caused a return of pain. This was the first food given by the mouth for five days, and was given without my sanction.

14th.—Slept well. Is free from pain and vomiting; still taking the enemata and pills. A little arrowroot was taken to-day without any ill effect. Abdomen still tender; bowels confined; throat sore; pupils dilated.

Two days later, the abdomen being much less tender on pressure, she was placed on a fish diet with a small amount of wine, and allowed to get up for a short time. The injections were discontinued. After this she improved steadily, and took food without pain or retching. The medicine was changed, and a pill of half a grain of oxide of silver given twice a day.

21st.—Going on well. No tenderness on pressure in left hypochondrium. Pupils at length normal, having remained dilated up to the present time. Appetite fair.

January 3.—Has had a slight return of the pain and has vomited some blood. The treatment with nutrient enemata and with belladonna and oxide of silver pills was returned to, and the symptoms gradually subsided, but tenderness remained in the left hypochondrium for some time afterwards. She was weighed to-day and found to weigh 8 st. 12 lb.—a gain of seven pounds and a half since admission. Whilst in the hospital she menstruated nearly regularly, though the amount was small.

She was discharged on the 16th, quite free from pain and tenderness in the abdomen, having gained two pounds more, and being able to return to her occupation.

*Remarks.*—The diagnosis of ulcer of the stomach was arrived at in the present case by the association of the vomiting of food and blood with distinctly localised pain and tenderness of a persistent character. The position of the tender spot, and the fact that the tenderness was much greater on deep pressure when the stomach was empty than when it was full, pointed to the ulcer being situated on the posterior wall of the stomach near the cardiac end. This conclusion was rather strengthened by the period at which vomiting took place after the swallowing of food, and confirmed by Dr. Brinton's statistics on the subject; for he found that out of 220 cases of ulcer of the stomach where the site was recorded, 86 were on the posterior surface, 56 on the smaller curvature, 32 on the pylorus, 10 on the anterior surface only, 13 on both anterior and posterior surfaces: thus demonstrating the far more common occurrence of ulcer of the stomach on the posterior wall than on any other part. The feature of irregular and scanty menses made me very cautious in arriving at the diagnosis of ulcer, but the localised tenderness and persistent pain, as well as the fact that there was some show of the periods, negatived the supposition of vicarious menstruation. In the same way hepatic congestion must be dismissed on the ground of the localisation of the symptoms. The ulcer was probably of inflammatory origin, and differed in its clinical history from the ulcer of chlorotic young women, which accounts to some extent for the small amount of blood vomited, and for the rapid cicatrisation; for, as Dr. Habershon says, these ulcers may heal as easily as those in the mouth. The case was instructive, as showing the great importance of absolute rest to the stomach, and freedom from the various changes in its calibre and secretions which digestion entails. Until cicatrisation of the ulcer was complete the viscus rebelled against the introduction of any food, even of a little arrowroot, though it tolerated the various pills of creasote and oxide of silver used, which seemed to have assisted materially in reducing the irritability of the ulcer. A most interesting feature was the gain of weight which steadily went on during the many weeks the patient was confined to bed, even during the ten days she was entirely supported by nutritive injections; and we see here demonstrated what a valuable and effective second stomach we possess in the rectum, which may not afford us the pleasures of digestion, but certainly spares us the pains of that process.

# REPORTS OF HOSPITAL PRACTICE
## IN
# MEDICINE AND SURGERY.

## THE MIDDLESEX HOSPITAL.

### LARGE CONGENITAL SCROTAL RUPTURE—HERNIOTOMY—A LOOP OF EXTENSIVELY AND FIRMLY ADHERENT AND VERY THICKENED BOWEL LEFT UNREDUCED IN THE SAC—REPLACEMENT OF A FRESHLY DESCENDED LOOP IN THE BELLY AFTER DIVISION OF THE CONSTRICTION—SUBSEQUENT ULCERATION OF THE UNREDUCED INTESTINE, AND ESCAPE OF ITS CONTENTS, FOLLOWED BY INFLAMMATION OF THE SAC, AND LATER BY PERITONITIS—DEATH.

(Under the care of Mr. HULKE.)

A DESERVEDLY celebrated writer on hernia asks the question—"When should we operate on a very large scrotal rupture?" and replies, "Never." It is but fair to his memory to add that he afterwards qualifies this reply by conceding the propriety of operating in such cases under very exceptional circumstances; and he records one where he felt himself constrained to take the exceptional course. The great age and

feebleness of the patients in whom these ruptures are usually seen, the exposure and handling of the large quantities of viscera they contain, and the complications often present in them, render herniotomy so frequently fatal that it is fortunate that it is not often required.

In the following case, after the taxis fairly tried and the application of ice had failed, any postponement of the operation appeared unjustifiable, and the course of the operation proved that no other measure could have relieved the strangulation. It was hoped that one principal risk might be avoided by not opening the sac, but unfortunately this was obliged to be opened. For leaving the firmly and extensively adherent piece of bowel unreduced in the sac many precedents may be found in the best authorities on hernia, but it is always an unfortunate circumstance, and it is very questionable whether the danger inseparable from this course is not greater than that attendant on the extensive and tedious dissection which may be required to set the intestine free and allow its reduction. Here, certainly, the stupid obstinacy of the man after the operation made it a matter of great regret that, at all hazards, the whole of the intestine had not been reduced. Had this been attained, agglutination of the bowel around the gangrenous line to a neighbouring coil might have preceded its exfoliation and rendered it harmless, and then inflammation of the sac and the fatal peritonitis might not have happened.

A labourer, aged sixty, was admitted into Brodripp ward at half-past six o'clock on October 24 with a strangulated scrotal rupture. He was so loutishly stupid that nothing more could be learned from him except that he had been ruptured ten years; the size of the rupture had varied much; he had worn a truss for a short time only, and this about one year after first noticing the rupture. Early on the day he was admitted the rupture had become very much larger than usual; this was followed immediately by pain in it and in the belly, and soon after by vomiting; his bowels were bound. Two men who accompanied him could add nothing to this history save that he had continued to vomit throughout the day, and had done so on the way to the hospital.

His scrotum was immensely distended by an extremely tense swelling, thirteen inches long by twenty inches in girth, quite burying the penis, the preputial orifice being a navel-like depression. The upper three-quarters of this large swelling were resonant, and they certainly contained bowel, whilst the lowest quarter, marked off from the upper part by a slight groove, was dull, and, too tense to yield a feeling of fluctuation on palpation, it gave a slight wave when lightly percussed. The testis could not be made out. This raised the question whether the whole tumour was simply a congenital hernia with an hour-glass constriction (not infrequent in these herniæ), in the lowest loculus of which the serum effused in consequence of the strangulation had accumulated, masking the testis; or whether the upper three-quarters only were hernial, and the lowest quarter was a hydrocele. The unvarying dulness of the lowest part in different postures favoured the idea that it was a hydrocele, distinct from the true hernial sac.

The taxis, ice, and opium having been fairly tried without any impression on the rupture, on the same night the taxis was repeated under chloroform, and, as the rupture continued irreducible, and remained as tense, herniotomy was resorted to without more delay. A cut was made over the external abdominal ring, where the constriction seemed to lie, and this was notched, and all the deeper tissues divided, including several tight bands of sub-peritoneal tissue incorporated with the outer surface of the sac across its neck. After these had been severed, and the internal abdominal ring notched, reduction was as impracticable as before. The sac was therefore opened. Its thickened neck appeared to constitute the impediment. It was slightly notched in three or four places, after which some eighteen inches or two feet of small intestine, congested but not otherwise altered, were readily replaced in the belly. A much longer piece of small intestine, however, remained, so thickened and so extensively and firmly united by old adhesions to the sac at its crural side, that there appeared less risk in leaving it where it was, the constriction having been relieved, than would attend any attempt to set it free and replace it in the belly. It was this thickened portion of gut, with a thin stratum of serum, which had given the lowest part of the rupture its absolute dulness. The wound was closed with a continuous suture, including the edges of the sac, and interrupted superficial stitches, and it was dressed antiseptically. For twenty-four hours his condition was very encouraging—he had no pain in the belly nor sickness; the scrotum was flaccid, wrinkled, and painless, and not more than one-third of its former size, so that the penis was no longer buried. He did not like being kept in bed nor his strict diet. A pillow intended to support his scrotum was sometimes found outside his bed. In the second night, contrary to orders, he got out of bed.

Next day (26th) the scrotum and the wound were acutely inflamed. Some of the stitches were removed to allow the discharges a free escape. Leeches were applied, and the scrotum enveloped in warm compresses of cotton-wool dipped in a weak aqueous solution of carbolic acid.

October 27.—The scrotum seemed less inflamed, but the inguinal region and flank were red and hard.

29th.—The scrotum and parts about the wound are less inflamed. Bowels acted once in the night. Pulse 96; temperature 100°.

30th.—Temperature 100·7°. A deep red blush stretching from upper end of incision towards flank. At about 8.30 a.m. he had a feeling as of wind in the rupture, followed by what he called "a pop"; and on removing the dressing a large quantity of a thin, black, slimy, nearly inodorous fluid was seen to have escaped through the wound, and to be still oozing from it. It contained bile, and could not be anything else than the intestinal contents. After this his temperature fell to 100°, and he said he was much better.

November 1.—The discharge continues; it is of a dark greenish-black colour, almost free from smell, flocculent and ropy, and floating in it are small tawny masses (milk-curds ?). It escapes from a small, pouting, reddish, nipple-like protrusion at the lowest angle of the incision, which is manifestly bowel. The scrotum and flank are less swollen. Tongue is clean and moist, and belly not tender.

2nd.—2 p.m.: Severe pain in belly. 4 p.m.: Collapse.

Death early on the following morning (3rd).

At the examination of the body signs of an intense diffuse peritonitis were found. The peritoneal cavity, and also the hernial sac, contained a large quantity of turbid flocculent serum. The component parts of the left spermatic cord, wasted and separated, ended upon the outer and posterior surface of the bottom of the sac, corresponding to which on the inner surface was a slightly raised, thickened, fibrous patch, the remains of a wasted testis. The rupture was therefore of the congenital kind. The adherent piece of intestine which had been left unreduced in the sac was a loop about sixteen inches long. The adhesions binding its posterior surface to the sac were very firm, evidently of old date. The peritoneal coat had quite lost its natural transparency, and its surface was so corrugated and tuberculated as to resemble shagreen. The muscular coat with the mucosa was about half an inch thick, and the canal was very much reduced in calibre. Its mesentery was loaded with fat, and large fringe-like epiploic appendages beset the entire length of the loop. This thickened condition of the intestine ended rather abruptly; and immediately above it, at its junction with the normal intestine, was a small linear sloughy perforation—the hole whence the contents had begun to escape on November 30, the sixth day after the operation. This perforation was just outside the external abdominal ring, and it was thought to have coincided with one of the tight fascial constricting bands which crossed the sac here and were blended with it.

## ROYAL FREE HOSPITAL.

### CASE OF OVARIAN HÆMATOCELE—INTESTINAL OBSTRUCTION—DEATH—AUTOPSY.

(Under the care of Dr. RICKARDS.)

[Reported by Mr. H. SAUNDERS, Resident Medical Officer.]

CAROLINE D., aged 25, was admitted July 17, 1874, suffering from symptoms of intestinal obstruction.

*History.*—Married; two children, the youngest thirteen months old. No trouble at confinements. Previous health good up to six months ago, when, in pursuing her avocation as a ballet-dancer, she fell through the stage, bruising her hip and side. Has had vague pains in the abdomen ever since. The catamenia ceased three months ago, but she does not think she is pregnant. She had been suffering from pains in the right side of abdomen for some weeks, when, about ten days before her present attack, she was seized, at Yarmouth, with constipation, vomiting, and retention of urine. The symptoms lasted three days, but were relieved by purgatives and

catheterism. She still suffered from occasional vomiting, the bowels being relieved daily up to three days before admission. Constipation then came on, and vomiting became persistent and speedily stercoraceous. She has been emaciating three or four weeks; has passed no blood per anum.

*Present State.*—Vomiting almost incessant and fæculent; emaciation not very marked; hectic flush of face; icteroid tinge of conjunctivæ and skin; tongue clean and moist; pulse 120, of fair power; temperature 98·4°. No great tenderness of abdomen, but paroxysmal pains; urination free. Abdomen rather swollen, rather more prominent on right side, resonant all over; coils of colon are mapped out. No stricture to be detected in the rectum, but a soft tumour pressing somewhat backwards on the rectum, readily raised, and feeling like the retroverted uterus. Examination per vaginam revealed the os uteri high behind the symphisis, and the swelling in the median line before detected in the rectum.

On the 20th, the symptoms continuing, it was thought proper to pass the uterine sound, both for purposes of diagnosis and to empty the uterus if it should contain a fœtus: it passed on turning the point backwards about three inches.

The practitioner who attended the patient at home states that he detected a fluctuating tumour in Douglas's pouch before her admission.

There was little variation in the symptoms until the 24th, when a large fluctuating swelling was discovered, occupying parts of the right lumbar, umbilical, and hypogastric regions. Dulness extended over it about three inches in each direction. A line of resonance between it and the liver. Abdomen more swollen; no evidence of peritonitis.

On the 25th she gradually sank, and died at 4 p.m.

*Treatment.*—This consisted in the exhibition at first of castor oil and turpentine, followed by enemata. No effect being produced, recourse was had to opium and to morphia injections. A single dose of calomel and croton oil was tried fruitlessly on the third day after admission. Vomiting was relieved by effervescing salines, bismuth, and hydrocyanic acid. A proposition to tap the cyst when discovered through the abdominal walls was negatived, as it was evident that death was then imminent.

*Post-mortem Examination.*—Emaciation not excessive. The cyst was opened by the first cut, the abdominal walls being rather thinned out over it. A quantity (roughly guessed at a quart) of dark bloody fluid escaped. The cyst was about the size of a child's head at term, or larger, and was divided imperfectly by a septum into two chambers. The uterus contained a well-formed fœtus of about three months. The left ovary was healthy. The right broad ligament was much elongated; it was broken across in the examination close to the cyst, which was attached to it and represented apparently the right ovary. Numerous old firm adhesions between the cyst and small intestine. No recent peritonitis. The calibre of the ileum was much reduced, apparently by adhesions, about six inches from the ileo-colic valve, but there were no complete bands of adhesion anywhere. No fæces below the stricture; a quantity of semi-fluid food above it. Thoracic viscera healthy. Kidneys pale and fatty.

## GREAT NORTHERN HOSPITAL.

### STATEMENT OF THE CASES ADMITTED AFTER THE EXPLOSION OF GAS AT SOUTHGATE ON DECEMBER 3.

[Reported by Mr. Irving, House-Surgeon.]

The sufferers by this accident were admitted late in the evening, and, as the services of the surgeon for the week (Mr. T. Carr Jackson) were not immediately available, the junior surgeon, Mr. Spencer Watson, attended to the patients. Mr. Jackson reached the hospital later in the night, and the cases have since been under his care.

Walter K., aged twelve years, has a lacerated wound of the throat four inches long, exposing the right lower jaw, which is obliquely fractured; also a lacerated wound over the coccyx, exposing the bone, dividing the posterior parts of the sphincter ani, and extending for three inches upwards towards the sacrum. On December 5, Mr. Carr Jackson joined the fractured ends of the broken jaw with strong silver wire, by which good apposition is maintained. Doing well so far.

Emma K., aged nine years; separation of the epiphysis of the left humerus. Doing fairly; idiotic and restless.

Annie K., aged six years; fracture of the right tibia. Doing well.

James K., aged thirty-two, baker, and father of the above children; severe contusions of the right hip, sacrum, and left forearm. Doing well.

William R., aged thirteen years, printer's boy; burn of the face, and lacerated scalp-wound extending across the left half of the forehead. Doing fairly.

Bertha R., aged two years and a half, sister of the last; fracture of the right tibia, with severe contusions about the face and sacrum. Not doing well; abscess forming.

Annie F., aged sixteen, dressmaker; compound dislocation of the right astragalus inwards, foot outwards, and fracture of os calcis. Mr. Spencer Watson removed the astragalus immediately. Doing as well as possible.


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# Medical Times and Gazette.

SATURDAY, DECEMBER 12, 1874.


## SCOTTISH HOSPITAL SCHEMES.

Several weeks ago we had occasion to comment upon a proposal to ereet in Scotland a national hospital for incurables, and a counter-movement discountenancing the idea of a single general hospital, but recommending the establishment of several smaller institutions readily accessible to chronic patients and to eminent physicians and surgeons. The aspect assumed by the rival agitations favoured the doubt that little could come of either scheme, but fortunately a series of negotiations conducted by the Edinburgh and Glasgow committees has led to a much more encouraging issue. At these conferences an agreement was arrived at which promises to secure all the advantages of united action as well as all the benefits of well-distributed hospital relief for sufferers from incurable disease. The Edinburgh and Glasgow representatives of the movement agreed that in the meantime there should be two hospitals, one specially directed to the relief of incurables in Glasgow and the West of Scotland, and another for the use of Edinburgh and the East. But perhaps a more important decision resulted from the congress of the two committees. It was determined that the deputies should unite into one central body of management for the purpose of forming a national association for the

extension of relief to incurables throughout the whole of Scotland. Subscribers, it was agreed, would have the option of determining that their donations should go to either hospital, but, unless subscriptions were specifically awarded to one or other of the hospitals, all funds would be at the disposal of a central committee. It is projected as one of the objects of this united committee to make provision for the erection of local hospitals wherever they may be required, each of which hospitals will be placed under the complete control of its own managing body.

It is impossible not to admire the cordiality which from early rivalry, and amidst appearances of direct and unavoidable antagonism, has led to the unanimous adoption of such a comprehensive and wise constitution for the new group of hospitals. Subscribers will be favourably impressed by that good spirit which has thrown aside all personal and civic jealousy for the purpose of promoting successfully a highly benevolent scheme, and will be inclined to support liberally a project which can enlist the sympathies of so many distinguished men, who, under other circumstances, would have been led by the diversity of their interests to favour local measures, without regard to the extension of their charity over the length and breadth of Scotland. They will also be inclined to think well of the idea of a central committee of management for the extension of the system of relief to incurables, when regarded from a business point of view. The arrangement may be the means of providing that the largest possible amount of the money subscribed will go for the benefit of incurables, inasmuch as united action will favour economy, by limiting as much as possible the working expenses of the scheme.

Meetings have been held both in Edinburgh and in Glasgow with the view of promoting the subscriptions for the establishment and maintenance of a hospital for incurables in each city. Sir William Stirling Maxwell, who suggested the congress of the two committees which has been so highly gratifying in its result, announced to the Glasgow meeting a conditional annuity of £150 from a relative, and another gentleman offered a subscription of £1000 if by the end of December the list had reached £9000. At Glasgow intimation was given that, simultaneously with the endeavour to raise the necessary capital for floating the undertaking, a maintenance fund would also be set agoing. A gentleman who had promised a subscription of £1000 announced that under the altered circumstances he would still honour his promise, and other gentlemen offered to place less munificent, but still considerable, sums of money at the disposal of the Glasgow committee. Several business resolutions were passed, the thanks of the meeting were cordially awarded to the Edinburgh committee for their valuable co-operation, and a special and well-merited vote of thanks was passed to Miss Clugston, whose constant devotion of time and means to the cause of the poor has culminated in the inauguration of the scheme for the erection of incurable hospitals in Scotland.

The Edinburgh meeting, at which the Duke of Buccleugh presided, was equally gratifying and harmonious. It was announced that the negotiations for the purchase of a small temporary hospital (to which we formerly referred) had been completed, and that the building was being fitted for the accommodation of twenty-two patients. The cost of purchase and furnishing will be £3000, and the annual expenditure for maintenance about £800. The subscriptions already amount to £2200, and yearly contributions to about £80. As the scheme has not till now been brought very specially before the public, the subscription-list may be regarded as gratifying. The meeting, which was very influential, went over nearly the same ground as the Glasgow one, and men of all professions were agreed as to the great extent of incurable disease, its painful nature, and the absolute necessity for doing something for its immediate alleviation. It was incidentally observed that considerable funds already existed in Scotland for the relief of persons suffering from incurable disease, and that they were distributed in the form of pensions, but that no provision had been made for cases requiring medical treatment and nursing except at one small hospital at Aberdeen.

A meeting has also been held in Edinburgh with a view to promoting the scheme for the building of such a new maternity hospital as would serve two purposes—namely, the reception of such as may require the use of the charity and the perpetuation of the name and fame of Sir James Y. Simpson. Lord Craighill advocated warmly the interests of the charity, and made suitable reference to Sir James Simpson in connexion with it. It is to be hoped that, after the touching appeal made by the many able and influential men who spoke at this meeting, the Edinburgh people will provide such a maternity hospital as will be creditable to the city and worthy of the memory of Simpson. At present, if there is one feature which disgraces the charitable aspect of Edinburgh, it is her maternity hospital. It is anticipated that a new building will cost £12,000, of which £2500 has been promised by the Simpson Memorial Committee. Though at the present time the people of Scotland are very much drawn upon for projects of university and hospital extension, it is sincerely to be hoped that some of their overflowing charity may find its way into the coffers of the committee for the erection of such a new maternity hospital as will afford a charitable shelter to poor women in the hour of their greatest need, and help to perpetuate the name of Simpson in connexion with an institution to which he was at once an ornament and a benefactor.

## THE EXPERIMENTAL PRODUCTION OF GIANT-CELLS.

With a view of studying the finer changes which take place in the growth of new connective tissue during inflammation, and especially the formation of vessels and of intercellular substance, Dr. Ernest Ziegler, First Assistant in the Pathological Institute at Würzburg, has lately made some rather curious as well as important experiments, a preliminary account of which will be found in the *Centralblatt* for October 31. He cut out small pieces of fine plate glass into square and oblong shapes, and after carefully grinding their edges, cemented upon each a microscopic covering glass of the same size in such a way that, except at their angles, there was a free capillary space all round between the two lamellæ. These plates, or cells as they might be called, were then inserted under the skin or the periosteum, or else into the large serous cavities of dogs, in the hope that the colourless blood-corpuscles would follow their natural tendency to migrate and wander under the covering glass, and there undergo various changes, independently and receiving their nutrition only from the lymphatic fluid. Thus any connective-tissue growth which occurred between the plates of glass must take its origin entirely from white blood-corpuscles, and the new tissue could be easily submitted to microscopical examination. After a number of unsuccessful attempts, Dr. Ziegler has actually succeeded in obtaining the result which he theoretically anticipated. The white blood-corpuscles migrate into the glass cells, and there undergo various changes, the most interesting of which is the formation of a reticulated tissue in which epithelioid cells are embedded, and in which an abundant development of giant-cells takes place. These giant-cells consist of a finely granular protoplasm, and enclose numerous large oval nuclei and well-defined nucleoli. Sometimes they are round and have a sharp outline, and at other times they send out processes. They lie in the reticulated tissue, surrounded by cells, which are of considerable size in their neighbourhood, but diminish as they lie nearer the periphery. The size of these giant-cells is very

variable, and it is easy to see, in the same preparation, how they are developed out of the colourless corpuscles by increase of their protoplasm and simultaneous division of the nuclei, until they reach the size of the largest giant-cells that have yet been seen.

Dr. Ziegler has also observed the development of connective tissue and bloodvessels from the white blood-corpuscles. He believes the formation of intercellular tissue to be "paracellular"; that is to say, that it takes its origin from the cells by a process of secretion. The formation of vessels begins by the apposition of a row of white corpuscles to one another; they then become flattened transversely and intimately adherent, and finally assume an endothelial character. The author never observed new bloodvessels in preparations containing giant-cells. He considers that the giant-cells are identical with certain forms of tubercles, or, in other words, that the "tubercle" with its giant-cells is an inflammatory product due to a peculiar development undergone by collections of white blood-corpuscles in various situations, but most probably, as Rindfleisch and Schüppel believe, within either the lymphatic or vascular canals. The cells, Schüller thinks, receive an amount of nutrition which is insufficient for them to form connective tissue, so that nature, as it were, abandons the attempt to complete the process which it has begun. On this view, therefore, giant-cells are new cell-growths of imperfect formation.

Dr. Ziegler will shortly publish a full account of his experiments, but the following details with regard to his method may be useful to those who wish to repeat his observations:—The glass plates must not be larger than from 10mm. to 20mm. in length and 10mm. in breadth; otherwise profuse suppuration is excited. They generally remain in position from ten to twenty-five days. The inner side of the thigh of dogs of medium age is found to be the best place to insert them. The experiment generally fails if rabbits are used. The plates, when removed, are first gently washed, and then placed in a 0·1 per cent. solution of osmic acid, and allowed to remain in it two days. They are then placed in a mixture of glycerine and spirit, and finally in pure glycerine, and can then be submitted to examination.

## THE "HOSPITAL SATURDAY" FUND.

It is now well known that the gross receipts obtained for the hospitals and dispensaries of the metropolis by the Hospital Saturday movement amount to something over £6000, while the expenses reach the sum of £1500; and the managers of the movement can hardly be surprised if there is a widely-spread feeling that the outcome is not exactly a satisfactory one; nor, considering the efforts that were made and that the working-men in London may be counted by tens of thousands, can they very well complain should some observers have been provoked into not only remembering, but actually quoting, their Phædrus:—

> "Mons parturibat, gemitus immanes ciens,
> Eratque in terris maxima expectatio,
> At ille murem peperit."

But the Hospital Saturday Council consider, we believe, that they have been unfairly treated, or at least not duly supported, by the Press; and we understand that especially "they cannot help feeling hurt that certain journals, which circulate amongst those whose mission it is to relieve suffering, should not only have withheld from them the helping hand which would have been so valuable in their hour of difficulty and trial, but should have treated their exertions in a spirit of hostile criticism and even of bitterness." It is to be regretted that this feeling has arisen, because we do not think that there has been any sufficient cause for it; but we suppose that it is difficult for those who have been at all closely or severely criticised not to suspect their critics of hostility and bitterness. For our own part we must say, that, while we have not been able to think the movement at all a wise one, we do not doubt that its promoters, as a body, have been actuated by the most disinterested motives and the most genuine and earnest desire to do good; and therefore we willingly find room in our pages for a statement which has been forwarded to us of some of the facts which are considered as proofs that the fund collected through the efforts of the Hospital Saturday Council is "a *bonâ fide* working-man's collection." We are informed that "the amount paid in coppers was so great that difficulty has been met with in disposing of it, as the banks decline to receive such large sums in copper; and that, with the exception of a sum of £200 subscribed towards the preliminary expenses by a few gentlemen connected with the movement, the amount contributed by the well-to-do classes was infinitesimally small;" in proof of which it is stated, that hardly £20 in gold pieces was found in the collecting boxes over which ladies presided on October 17; that at the performance in the Agricultural Hall only three or four rows of the seats which, as being nearest to H.R.H. the Duke of Edinburgh, were half a crown each, were filled, while 6000 paid sixpence for admission, and could not, or at any rate did not, pay any additional sixpences when the price of the half-crown seats was reduced to a shilling; and that in the theatres where performances were given in aid of the fund the pit and gallery were crowded, while the boxes and stalls were empty. We are further assured that "the promoters in starting this movement looked more to the moral advantage which would accrue in showing the working classes that increased privileges brought with them increased responsibilities and duties; and looking to the enormous difficulty of removing prejudice generated in a large city like London, they consider that they have attained as much success, both morally and pecuniarily, as could well be expected. The promoters believe that the amount raised in the first year of Hospital Saturday in London will compare favourably with the results obtained by a similar movement in the large provincial towns. The sums collected by Liverpool and Manchester on Hospital Saturday in the fourth year of their respective existences are as follows:—Manchester and Salford, £2718 3s. 3d.; Liverpool, £2198 14s.; while in London, in the first year, it is over £6000."

We readily publish these statements without any word of criticism, and we can sympathise with the feelings of some of those who have freely expended money and valuable time in forwarding the object of the "Hospital Saturday" when they have to confess that "the promoters of this movement, in handing over to the needy hospitals, which are daily appealing to the public for funds, the sum of about £5000 net, believe that they are doing some little good, though not so much as they hope to be able to do in future years." But we trust that we may, without being charged with hostility or bitterness, venture to express an opinion that the management of the movement has been a great mistake. We believe that the contributions of the true English working-man are much more likely to be obtained, and obtained largely and at very little expense, by quiet business-like collections in shops and workrooms, than by means of peripatetic begging-boxes, street processions, and Hyde-park meetings.

## THE CONTAGIOUS DISEASES ACTS AND MR. STANSFELD.

In pursuance of the very emphatic declaration which he made some time since, Mr. J. Stansfeld, M.P., has again been attacking the Contagious Diseases Acts at the anniversary meeting of the Midland Counties Electoral Union for the repeal of these Acts lately held at Birmingham. Supporting the remark of a lady who had previously addressed the meeting, he expressed his concurrence in the view that it was most important for women to remain in the front of the agitation on this question, because, as its ultimate object would be to raise the standard

of sexual morality, it could not be advantageously discussed without women standing by the side of men. Now, it is very generally believed that the principal agitation against these Acts originated with women whose misplaced sympathy was aroused by sensational statements published as to their operation; and as the medical view of the subject, with the miseries attributable to it, cannot be expected to be fully known to them, it is rather a clever determination on Mr. Stansfeld's part to foster the desire of such of the other sex as are willing to identify themselves with this movement to place themselves publicly in array.

Mr. Stansfeld's next attack was directed at the profession. In his opinion the Acts had been originated by pro-Act doctors and men of the world. He was, however, kind enough to say that he "would not deal harshly with them" for this offence, though he rather spoilt the sentiment by adding "because it was not the most efficacious way." Such remarks are of themselves scarcely worth notice, but it is singular to find a gentleman of Mr. Stansfeld's position perverting facts and making statements which he ought to know to be untrue; and it would appear to be more in keeping with the character of a public reformer and member of Parliament if he applied for information to unbiased authorities before making the absurd announcements that "as a matter of fact and of necessity, they (the Acts) were a failure even for the limited and low purposes for which they were enacted"; and that "medically and hygienically" they had failed in their object.

We have taken the trouble to refer to the reports of those who should know the most of the working of the Contagious Diseases Acts, and who are in a position to judge impartially whether they have acted beneficially or otherwise. Amongst these the Principal Medical Officer of the troops in the Eastern District says:—"As regards venereal disease, the beneficial working of the Act at Colchester is unquestionable; there have been comparatively few admissions for syphilis, and, as a rule, the cases have not been severe, and but seldom followed by constitutional symptoms." The Chatham report runs:—"The Act is in force in this district, and I am of opinion that the number and severity of the syphilitic cases are immensely diminished in consequence." The Surgeon-General at Portsmouth states:—"The garrisons of Portsmouth and Winchester are protected by the Acts, the operation of which appears to have been attended with very beneficial results as regards the decrease of venereal disease among the troops—*all the medical officers in charge* recognising the fact that not only has a diminution in the number of admissions taken place, as compared with years before the Acts came into operation, but that the cases admitted were of a lighter kind, and more amenable to treatment."

All the foregoing information, and a great deal more, could be obtained by Mr. Stansfeld from gentlemen who are not prejudiced witnesses, if he chose to take the trouble to apply for it; and he may be certain that when he does appeal to the country at large for assistance in obtaining the repeal of the Acts against which he has commenced his crusade, the misstatements which are allowed to pass unquestioned in a packed meeting of his fellow-agitators will be most positively disproved from sources of the most undoubted authenticity.

## THE WEEK.

### TOPICS OF THE DAY.

"The combat thickens." Opposition to the proposed new hospital at Hampstead has within the last few days been carried on with great spirit and vigour. Meetings have been held in all parts of the district, denouncing the scheme as one of spoliation and as injurious to health, and calling upon the authorities to select some other site in some other neighbourhood on which to raise the projected building. Letters have been written to the leading newspapers to show that property, under the impression that the Hampstead project would be carried out, has already deteriorated to a remarkable and even a ruinous extent. The Asylums Board, under whose control the whole matter would seem at present to rest, has turned a deaf ear to all these remonstrances, and contends that it was clearly understood from the outset that a permanent hospital for infectious diseases should be erected on the spot which has been so generally condemned. Some members of the Board, at a recent meeting, contended that the arguments adduced by the opposition might be advanced against any other site with equal force and justice. The meeting decided, by an overwhelming majority, not to abandon the project. There can be no doubt that there is much reason in the views advanced by the opposition, who, we cannot but hope, may succeed in their agitation. Certainly if another site can be found offering equal advantages to the patients, who are the first to be considered, the Asylums Board are bound to listen to the voice of public opinion, which has been so generally and strongly expressed.

The report of the Board of Medical Studies at Cambridge relative to the teaching of State Medicine was discussed at a meeting held for the purpose on the 3rd inst., by the general members of the Senate of the University. The Regius Professor of Physic supported the scheme, and the Vice-Chancellor adverted to the great public interest which was now evinced in all matters relating to health. He thought it was proper to guarantee the efficiency of officers of health by means of university examinations, and the suggestion to admit to these examinations those who were not members of the University met with his approval.

It would appear that a most diabolical attempt at wholesale poisoning has been perpetrated at the West of England Fireclay Works, at Calstock. About sixty of the workpeople were seized, last week, with all the symptoms of poisoning by arsenic after drinking water from a tank on the premises. It was ascertained that a barrow-full of white arsenic had been thrown into the tank. Fortunately, white arsenic is soluble in cold water only slightly, and we have not yet heard of any deaths resulting from the poisoning, which we must hope for the sake of humanity was accidental.

In consequence of the epidemic of typhoid fever at Lewes, we understand, the winter assizes for Sussex will be held at Brighton.

The inhabitants of the important parish of Clerkenwell have held a meeting, which was very numerously attended, with reference to the providing a mortuary for the parish. Some strong observations were made on the subject, and it was the opinion of some of the speakers that the establishment of a mortuary in each metropolitan parish should be made compulsory by Act of Parliament. Resolutions favourable to the object of the meeting were carried unanimously.

It is stated, on what appears to be good authority, that a committee has just been formed at the Hague, embracing many of the principal inhabitants, for the purpose of promoting the practice of cremation.

It is with regret that we have to announce the death of M. Husson, so well known in connexion with the hospitals and charitable institutions of France, of which he was for several years the principal director. He was a member of the Institute, and, though not a member of the medical profession, he contributed not a little to the knowledge of the hygiene of hospitals and to the improved condition of the patients, on which subject he published a most interesting work.

For a long time past great inconvenience has been experienced in the University of Edinburgh from the very deficient accommodation provided by the buildings of the institution.

It is proposed to raise £100,000 for the purpose of enlarging the various lecture-rooms, etc. Of this sum £70,000 is already subscribed. A numerous and important meeting was held on Monday last at Willis's Rooms—his Royal Highness the Duke of Edinburgh being in the chair—for the purpose of promoting a subscription for making up the required sum. The proceedings were of an interesting character; every speaker eloquently advocated the claims of the University of Edinburgh on the country. The following resolutions were moved, seconded, and carried unanimously:—

"1. That the University of Edinburgh deserves the sympathy of all Scotsmen resident in London, and of all who are interested in the cause of learning and science.

"2. That the present state of the buildings of the University of Edinburgh is such as to impede that University in the proper discharge of its functions, especially in respect of imparting scientific instruction in accordance with the modern system; and that it is for the interest of science that this state of things should not be allowed to continue.

"3. That the University of Edinburgh, not only in respect of scientific teaching, but also in other material appliances, is worse equipped than other Universities of equal importance; and that it is especially matter for regret that the University of Edinburgh should have no hall for conferring degrees, conducting examinations, or holding meetings of its members.

"4. That this meeting recognises the liberality by which the sum of £70,000 has already been contributed in Scotland towards removing these disabilities from the University of Edinburgh, and resolves that every effort should be made in London towards obtaining the additional requisite amount.

"5. That a humble vote of thanks be offered to his Royal Highness the Duke of Edinburgh for presiding."

A very handsome first list of London contributions has since been published.

Brighton takes a prominent position in many respects in regard to progress. The townspeople have given evidence of enlightenment and good oommon-sense on many recent occasions. They have now set an example with respect to mental and physical education which is worthy of commendation. At a meeting of the School Board, held on Tuesday, it was determined to adopt a scheme of religious instruction to be carried out under the superintendence of the respective managers. Dr. John Harris Ross was unanimously appointed to one of these posts in consequence of his being a medical man. It was urged by some of the more prominent speakers that, as physicians and surgeons are men of education and cultivation, they are in every way qualified to supervise school work, and that, could their co-operation be secured, the sanitary condition of these institutions might be greatly improved, especially as regards ventilation, the propriety of athletic exercise, and general hygienic regulations.

We much regret to have to announce the death of Dr. Ballot, of Rotterdam; an accomplished physician, whose name is well known to our readers.

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MEDICAL OFFICERS OF HEALTH AT PORTS OF EMBARKATION.

It seems very questionable whether a sufficiently careful medical inspection could have been made at Antwerp in the case of a large number of Russian and German emigrants recently embarked at that port for America. The vessel in which they were proceeding unfortunately—or for the emigrants, as the sequel proved, fortunately—came into collision with the Peninsular and Oriental steamship *Indus* off Dover, and received so much damage that she was compelled to put into the Victoria Docks for repairs. Here it was found that several of the emigrant children were suffering from small-pox, and the medical officer of the port having been communicated with, eight cases were promptly removed to the Small-pox Hospital at Homerton. Those who appeared to be healthy, to the number of about 320, were immediately sent off by special train to Liverpool, where they were re-embarked on board the steamship *Illinois*, for conveyance to Philadelphia; but before the vessel sailed, and within thirty-six hours of their leaving London, the disease broke out again, and seven more of the passengers had to be transferred to the Hospital for Infectious Diseases in Netherfield-road, Liverpool. Under these circumstances it was not considered expedient to allow the *Illinois* to proceed on the voyage, and the question arose as to what should be done with the remainder of the emigrants. The owners of the vessel wished to get rid of them, paying, under the provisions of the Emigration Act, for their subsistence during any period of detention which might be necessary to insure the stamping out of the disease; and an application to this effect was made on their behalf by Captain Muir, who attended before the Liverpool Workhouse Committee for the purpose.

A long discussion ensued amongst the members of the Committee, in the course of which the steps taken by the authorities in London were strongly commented on, it being pointed out as a most significant fact that the second outbreak had occurred in so short a time after the despatch of the omigrants to Liverpool. After a somewhat singular attempt to shift the responsibilities of the situation to the shoulders of the Birkenhead authorities, on the ground of the strangers having first arrived there and the population not being so dense as in Liverpool, the Clerk to the Committee pointed out that their first consideration must be what was best to do in the interests of the town. It was perfectly competent for the owners of the vessel to land these people and discharge their legal liability by giving them subsistence-money: the effect of this would be to scatter 300 people in their midst, with the probability of spreading small-pox broadcast throughout the town. These emigrants might, or might not, be infected, and he doubted whether Dr. Trench, their Medical Officer of Health, would have sufficient authority to stop their landing. Dr. Trench, being subsequently applied to, confirmed this opinion, and eventually, with very praiseworthy promptitude, the Brownlow-hill Workhouse was cleared for their reception, and the whole of the party removed thither, where, at the present time, they are comfortably housed. On Friday last more cases of disease occurred, making the number reported from Liverpool ten in all. The sufferers were again children, and they were immediately removed to the Hospital for Infectious Diseases.

This outbroak, which, but for the promptitude in action of those who were called upon to meet it, might have been attended with most disastrous results, points to the urgent necessity which exists for the most careful supervision on the part of medical officers of health at ports of embarkation. Had no collision occurred, the first vessel would by this time have been in mid-ocean with small-pox raging amongst the unfortunate passengers; whilst the hurried removal of the supposed healthy emigrants from London to Liverpool suggests the unpleasant idea that risks are occasionally incurred by the whole of the community in the endeavour to shift expense and trouble from one port or parish to another. In conclusion, it is pleasing to be able to record the prompt and vigorous action taken by the Liverpool authorities to prevent an outbreak of epidemic in their crowded town; and the owners of the *Illinois* must likewise be complimented for the liberal and considerate manner in which they acted throughout the whole proceedings.

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ROYAL IRISH ACADEMY.

On the evening of Monday, November 30, a Stated Meeting of the Academy took place, at which the President, Dr. William Stokes, D.C.L., F.R.S., delivered his inaugural address before a most numerous audience of members and visitors. Having given a historical sketch of the Academy from its foundation in 1772, and its incorporation by Royal Charter in 1786, the

President spoke at length on the subject of Archæological Research. He then reviewed the labours of the Academy at large in Archæology, Mixed Mathematics, the Physical Sciences, Biology, Comparative Anatomy, and Natural History. In Biology the labourers were comparatively few—amongst them he mentioned the names of Professors Macalister, Purser, and Haughton,—but the value of the results was truly great, not alone as regards the discovery of fact, but in the philosophic mode of dealing with the great mystery of life. The researches of the Rev. Professor Haughton, which culminated in his great work on Animal Mechanics, so illuminated by geometric science and algebraic calculation, first saw the light in the *Proceedings* of the Academy. In this remarkable work Dr. Haughton had ably demonstrated the principle of "Least Action in Nature." Dr. Stokes glanced at the powers of spectroscopic and polariscopic analysis, and alluded to recent improvements in the means of medical investigation and surgical operation, and said that many years ago the late Dr. Robert Graves proposed that the different Governments of Europe, America, and India should establish and endow corresponding medical observatories, supplied with every requisite for recording the advance of epidemic and sporadic disease, in connexion with the meteorological, atmospheric, and telluric conditions of the time, together with those of the physical state of the population, its longevity and its mortality. In this way a great advance in the study of preventive medicine might be anticipated. The address concluded as follows:—

"The conservation of energy, directive though not creative, in the living organised structure, and the chemical affinities in that which is unorganised, show, it might be held, that a lower mode of life pervades every existing being; but we believe that in God's own time that higher life which shows itself in progressive organisation, and is terminable, will have a different existence, at least as regards the human being—one freed from material associations, freed from physical influences and from moral shortcomings. It is believed by thoughtful men that matter is indestructible. May we not find that as it has, in Time, subserved the physical, so in Eternity it will, when spiritualised, subserve the moral law, and thus an undying result will be evolved. It has been written that we 'see as through a glass, darkly'; but are there not grounds for the belief that such will not ever be the case? May we not believe that every discovery in development, in structure, in chemical composition, and in electrical and optical character, will be, when related to the property of life, a fuller ray of the burning lustre by which we approach the footstool of that throne where we shall be permitted nearer and nearer to contemplate the power and the ineffable light of Him from whom comes all life?"

A vote of thanks to the President for his address was proposed in an eloquent speech by the Rev. Professor Jellett, himself lately President of the Academy, seconded by the Rev. Dr. Russell, President of Maynooth College, and carried by acclamation. Dr. Stokes replied in the words—"Gentlemen, I thank you from the bottom of my heart." The Academy then adjourned.

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### PATHOLOGICAL SOCIETY OF DUBLIN.

The first meeting of this (the thirty-seventh) session took place on the afternoon of Saturday, November 28, in the anatomical theatre of the School of Physic, Trinity College. The chair was occupied in the first instance by Dr. Robert D. Lyons, the outgoing President. Mr. G. H. Porter, Surgeon to the Queen, presented the leg of a boy, which he had amputated through the condyles of the femur for a lacerated wound and fracture of the tibia. The fibula was not broken. Mr. W. Stokes, jun., exhibited a remarkable example of pachydermatocele, which he had removed from the head of a healthy, well-formed man aged thirty-three years. The tumour was of twenty-seven years' growth. Virchow termed the affection "fibroma molluscum." During the operation the patient almost died from hæmorrhage, but was restored by the adoption of Nélaton's plan of inverting the body. Dr. Bigger showed a small polypoid tumour from the posterior nares of a man aged seventy-one. The growth was attached by a slender pedicle to one of the turbinated bones. The retiring President, before leaving the chair, announced that the Council had chosen as the subject for the prize essay "The Human Entozoa." The officers for the session 1874-75 were then elected, as follows:—*President:* Robert McDonnell, M.D., F.R.S. *Vice-Presidents:* Sir Dominic Corrigan, Bart., M.D.; Robert Adams, M.D.; J. T. Banks, M.D.; Joliffe Tufnell; A. H. McClintock, M.D.; Edward Hamilton, M.D. *Council:* A. H. Corley, M.D.; A. Wynne Foot, M.D.; Samuel Gordon, M.B.; T. Hayden; H. Kennedy, M.B.; J. Little, M.D.; B. G. MacDowel, M.D.; Wm. Moore, M.D.; J. M. Purser, M.D.; W. Stokes, jun., M.D.; J. H. Wharton, M.D.; Gerald F. Yeo, M.D. *Honorary Secretary:* William Stokes, M.D. *Secretary and Treasurer:* Edward H. Bennett, M.D. *Secretary for Foreign Correspondence:* Robert D. Lyons. The incoming President (Dr. McDonnell) afterwards took the chair, when a vote of thanks to Dr. Lyons was proposed by Mr. Porter, seconded by Mr. Tufnell, and carried. It was moved by Dr. Atthill, seconded by Dr. MacSwiney, and resolved—"That the Council do not nominate members to fill the vacancies annually occurring on the Council." It was further moved by Dr. Hayden, seconded by Mr. Porter, and resolved—"That it is desirable to erect a bust or other suitable memorial to the late distinguished Secretary, Dr. R. W. Smith." A committee was appointed as follows to carry out this object—Drs. W. Stokes, jun., Bennett, John Hamilton, Tufnell, Cryan, with the proposer and seconder of the resolution. The Society shortly afterwards adjourned.

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### THE ACTION OF CERTAIN DRUGS ON THE VESSELS OF THE BRAIN.

Dr. Schüller has lately made some observations on the changes in the condition of the vessels of the pia mater in rabbits which had been brought under the influence of certain drugs. By trephining the skull, and removing a piece of it about the size of a farthing, without injury to the dura mater, he could watch any alterations in the vascular supply of the brain with great facility and in the most direct manner. The sympathetic nerve with its superior cervical ganglion was generally removed on one side of the animal's neck. The drugs employed were nitrite of amyl, ergotine, opium, and chloroform; and the effect of mustard plasters applied to the skin was also made the subject of experiment. It was found that small mustard plasters had no influence whatever on the vessels of the pia mater, whereas large ones regularly produced their dilatation, and this was again followed by alterations of calibre succeeding one another more or less rapidly, and finally by contraction, which often still persisted an hour and a half after the removal of the sinapism. Nitrite of amyl produced a very marked dilatation of the vessels of the pia mater extending to the arteries as well as to the veins. The same phenomenon was also observed on the side on which the sympathetic nerve had been removed, on which there was already distinct dilatation of the vessels owing to that operation, and it also occurred after section of the pneumogastric nerve, as well as in animals which had been curarised.

The administration of ergotin is followed by a powerful and long-continued contraction of the vessels, which also involves the side of the brain on which the sympathetic is paralysed. According to Schüller, the action of ergotin is antagonistic to that of nitrite of amyl, and able to overcome the relaxed condition of the vessels produced by the latter. Opium appears always to dilate the vessels of the brain at first, while afterwards it makes them gradually contract. After the inhalation of chloroform the veins and arteries of the pia mater at first contract, but they very soon become relaxed, and considerable venous congestion follows. Dr. Schüller has made the interesting observation that nitrite of amyl not only

quickly removes the effects of chloroform on the vessels of the pia mater, but in cases of advanced narcotism from the latter drug it rapidly relieves the dyspnœa and laboured respiration, and renews the strength of the pulse, while at the same time it restores the animal's reflex excitability in an astonishingly short space of time. We are not aware whether nitrite of amyl has been tried in cases of danger from chloroform in man, but the above observation is worth remembering by those engaged in its administration, and it may possibly be the means of saving valuable lives.

### ISOLATION OF CASES OF EPIDEMIC DISEASE.

Dr. Whitmore, Medical Officer of Health for the Parish of Marylebone, in his report for the past month makes some very pertinent and practical remarks on the defective state of the law in reference to the isolation of infected persons. He says:—

"The law as it at present exists for preventing the spread of contagious epidemic diseases is altogether insufficient for its purpose, and must continue so until further enactments of a very stringent character are added, which shall provide for the compulsory isolation of infected persons, and prohibit all intercourse between them and the healthy until such time as they shall be declared by medical certificate to be incapable of communicating disease. Amongst the better classes of society such prohibition is scarcely needed—they, as a rule, are fully conscious of the danger, and are not slow in adopting measures to avert it; but amongst the poor and destitute there is no such appreciation of the peril to which their families are exposed—they are, in truth, utterly reckless of consequences, and regardless of the simplest precautions, caring neither to protect their own offspring from infection, nor, if infected, to prevent them infecting the offspring of others. In houses let out in separate rooms to separate families, it is nothing uncommon to see children just recovering from an attack of scarlet fever—but who have the contagion of the disease still strong upon them, and are throwing off from the surface of their bodies a deadly poison in the shape of desquamated cuticle—playing on the stairs or landings with other children who have not had the disease; and many of these children, there is too much reason to fear, are sent again to school long before it is in any degree safe for them to mix with their schoolfellows. I believe that in this way the disease is frequently disseminated throughout a district; and it therefore becomes in the highest degree important that the masters and mistresses in our public schools should—especially in seasons of epidemic—exercise the utmost vigilance, not only in preventing children who have suffered from any contagious malady returning to school until they are certified to be perfectly non-infective, but in prohibiting also the attendance of others who come from houses in which any such malady exists."

### VIVISECTION.

On December 9, at the Norwich Police-court, some proceedings of considerable interest to the medical profession were instituted, at the instance of the Royal Society for the Prevention of Cruelty to Animals, against M. Eugène Magnan, of Paris, Mr. Haynes Robinson, Mr. J. B. Pitt, Mr. H. Turner, and Mr. R. Wentworth White, surgeons of Norwich, for having, as the prosecution alleged, tortured two dogs at the meeting of the British Medical Association at Norwich, in August last. The summons against M. Magnan had not been served; the other defendants were duly in attendance. Mr. Colam, the Secretary to the Royal Society for the Prevention of Cruelty to Animals, conducted the prosecution; the defendants were represented by Mr. Chittock. The case arose out of an experiment made by M. Magnan, on August 13, for the purpose of demonstrating the effects of alcohol and absinthe upon dogs. Two dogs were strapped down on a board and muzzled, and M. Magnan made an incision in their thighs and injected alcohol into one, and absinthe into the other; the result being that one dog died. It was not alleged that the other defendants actually performed the experiment, but it was contended that they countenanced it, and voted for its continuance when some gentlemen protested against it. The case for the prosecution was that the experiment performed by M. Magnan was cruel and unnecessary. On the other hand it was contended that the experiment was made in the interest of science and for the benefit of mankind, one of the objects of M. Magnan being to show that absinthe had the effect of producing epilepsy. The magistrates, after a hearing extending over several hours, intimated their opinion that the case had failed against Mr. White and Mr. Pitt, as it was not proved that they were present at M. Magnan's experiment. The proceedings as against the two remaining defendants, Mr. Robinson and Mr. Turner, were adjourned to the following day. We shall give a fuller report of the proceedings next week.

### THE SCIENTIFIC GRANTS COMMITTEE, BRITISH MEDICAL ASSOCIATION.

The following letter, which has been addressed to the chairman of the Committee by Dr. Sanderson, one of its members, makes an offer of much importance and liberality, to which it is desirable to give publicity. The suggestion which it makes, that the general tendency of the inquiries, if aided, should be as far as possible towards therapeutics, is based upon considerations, one of which is stated in the letter, and others will readily suggest themselves as of very great weight, and as being sure to approve themselves as acceptable to the Grants Committee.

"49, Queen Anne-street, W., Nov. 18.

"Dear Dr. Sibson,—I will certainly do all that I can to aid the Committee as regards the grants. I would venture to suggest, that the greater part, if not the whole, should be devoted to therapeutical investigations, not merely because they are so important, but because no other source of means for carrying them out efficiently exists. I think that a great deal can be done in this direction at comparatively little cost, and I believe that it will not be difficult to meet with capable workers in London. Although I could not undertake any investigation myself at present, I should be most glad to assist by giving facilities to others. There are several subjects connected with the treatment of fever which I am most anxious to see taken up. "Yours very truly, J. B. Sanderson."

### SURGICAL SOCIETY OF IRELAND.

The opening meeting of the present session was held on Friday evening, December 4, in the Albert Hall of the Royal College of Surgeons, Stephen's-green. The meeting had been postponed from the previous week owing to the lamented death of Mr. Hargrave. A large gathering of members and visitors was present. The President, Mr. Joliffe Tufnell, delivered an inaugural address, in which he commented on and described the principles on which the work of the Society was conducted. He alluded in apposite terms to the loss by death of two distinguished members—Arthur Jacob and William Hargrave. The following communications were then made to the Society:—Dr. Wheeler exhibited a specimen of elephantiasis Arabum of the leg in a woman aged thirty. Dr. Mapother presented a scirrhous tumour which he had removed from the male breast—the patient being thirty-five years of age. Dr. Wheeler showed the knee-joint of a man who had suffered from chronic synovitis for five years. Mr. Croly reported a case of acute tetanus, fatal in thirty-eight hours, in a woman aged thirty, the initial symptoms of yawning and stretching of the limbs having been well marked. A discussion ensued, in which several members took part, after which the Society adjourned.

### PUBLIC BATHS FOR THE PEOPLE.

With the view of obtaining accommodation for bathers in Finsbury-park a memorial has been presented to the Metropolitan Board of Works from the Vicar of Islington and 2000 persons, praying the Board to make arrangements for carrying out that object.

### DISPOSITION OF THE PERITONEUM.

At a meeting of the Cambridge Philosophical Society on November 30, Dr. Wilson made an important communication on the disposition of the peritoneum in man and other vertebrata. He gave a brief account from his own dissections of the anatomy of the peritoneum, and more particularly of its omental sac in man and many mammals, reptiles, amphibians, and fishes. He showed that in many of these the omental sac is divided into two parts—a gastro-hepatic and a gastro-colic part—by a constriction corresponding with the upper border of the stomach. This he first observed in the dissection of a narwhal, and had found it marked to a variable extent in man, most evident in a young hippopotamus, distinct in the rat, and in the human fœtus about the third month. In reptiles and amphibians the omentum does not extend below the level of the stomach. There is therefore only a more or less complete representative of the gastro-hepatic part of the omental pouch of man. One or more of the hepatic lobes usually project into the gastro-hepatic part of the sac. In man it is the lobulus Spigelii. He described the relation of the spleen to the omental pouch, and stated that his observations were, on the whole, in accordance with the old and commonly received view regarding the mode in which the colon is embraced by the two recurrent layers of the omentum which pass on to form the transverse meso-colon.

### TRICHINÆ AND AMERICAN PORK.

We are not aware whether the importation of hams from America into this country is large, but it appears probable, from the number sent over to Germany, that the English market must also receive a share. It ought therefore to be known that their use is not absolutely unattended with risk, and more especially in the case of hams which are cured with the residues of the cane sugar manufacture. Five per cent. of the latter kind, according to Dr. Röper (*German Quarterly Journal of Public Health*), who has carefully examined the subject, are infested with trichina spiralis. Only 3 per cent. of the hams cured in the ordinary way contain trichinæ. The reason why so many hams are thus diseased is probably due to the circumstance that in the places where the pigs are slaughtered the living pigs are fed with the offal of the dead ones, part of which were affected with trichinæ; the consequence must be a steady increase in the number of infected animals. Röper, after a careful microscopic examination of the trichinæ from American hams, is positive that they are identical with those which have given rise to disease in Germany, the American opinion being that they are of a different and harmless species. He has, however, not been able to convince himself, either by microscopic examination or by feeding animals with the diseased flesh, that the American trichinæ retain their vitality when they reach Europe. An epidemic of trichinosis which occurred at Bremen, in which more than twenty persons suffered after eating American pork, is, however, a sufficient proof that its use is not entirely free from danger.

### A PECULIAR FORM OF HERPES ZOSTER.

In the *Wiener Medicinische Wochenschrift*, Nos. 25 and 26 of the present year, Dr. Kaposi, of Vienna, has described an affection of the skin to which he gives the name of "zoster cervico-brachialis." It differs, however, from all other previously recorded cases of herpes in several important points. A woman of forty-two was attacked with an eruption of large and small vesicles, arranged in groups on the backs of the fingers and the hands. It soon spread upwards along the forearm to the elbow, and from thence in three days it had reached the shoulder, and finally the scapular region and the chest were involved. It took ten days for the eruption to be completely developed. Besides vesicles, there were green and black scabs present, some being round, and others of an elongated form. The eruption was remarkably like herpes circinatus, and had this peculiarity in the grouping of the vesicles, that new vesicles kept continually appearing at the edges of those which had dried up and become covered with crusts. Rings as large as crown-pieces were thus formed by centrifugal growth. The case also differed from an ordinary zoster in the presence of groups of vesicles on the shoulder-blade of the opposite side of the body to that mainly affected. Dr. Kaposi considers that there is an analogy between this feature of the case and those extremely rare cases of simultaneous zoster of the two sides of the body which are known to have occurred.

### THE TREATMENT OF MALIGNANT LYMPHO-SARCOMATA WITH ARSENIC.

Dr. Czerny, Professor of Surgery at Freiburg, has lately treated three cases of the above disease, in which any operation was impossible, with liquor arsenicalis, given in increasing doses carefully regulated. The first case was one in which the glands of the neck were affected; the patient recovered perfectly, and there was no return a year afterwards. A second case of malignant lympho-sarcoma of the glands of the neck and the tonsils also recovered. The third case, in which the supra-clavicular and axillary glands were affected, rapidly improved so far as the disappearance of the tumours was concerned, but the spleen soon began to swell to an enormous size, and the patient became feverish and died in a state of great exhaustion. The treatment is therefore not unattended with danger, and it would be as well in future to omit the medicine from time to time as soon as its action becomes decidedly marked. Dr. Tholen, who reports the cases in the *Archiv für Klinische Chirurgie*, considers the malignant lympho-sarcoma to be the form of tumour most suited for arsenical treatment. The scrofulous lymphoma appears to be quite uninfluenced by it.

### THE NEW HEAD OF THE STATISTICAL BRANCH, ARMY MEDICAL DEPARTMENT.

We have every reason to believe that the report is correct which assigns the post of Head of the Statistical Branch in the Army Medical Department to Deputy Surgeon-General Sir Anthony D. Home, K.C.B., in succession to the late lamented Dr. Barclay, whose death we so recently recorded. Sir Anthony Home, it will be remembered, rendered good service in the late Ashantee campaign, in the position of Principal Medical Officer on the West Coast of Africa. All the medical preparations for the famous advance on Coomassie were perfected under his immediate superintendence; and in addition he contrived to obtain and send home to this country much information as to the route, the climate, etc., which eventually proved most valuable. Unfortunately, an attack of fever prevented him, almost at the eleventh hour, from accompanying the advance upon King Koffee's capital. Sir Anthony Home has recently been doing duty as Principal Medical Officer in the South-Eastern District—a post which he will vacate to take up the new appointment.

### HEALTH OF LONDON.

In the metropolis last week 2122 deaths were registered, showing a death-rate of 33 per 1000. The deaths from scarlet fever (which in the two previous weeks had been 124 and 97) further declined last week to 92, of which 32 occurred in the East, 24 in the North, and 18 in the South groups of districts; 8 were returned in Marylebone, 7 in Mile-end Old Town, and 10 in Bow and Poplar. The Asylum District Hospital contained 243 scarlet fever patients on the 5th instant. The Metropolitan Asylum District Fever Hospitals at Homerton and Stockwell contained 133 fever patients on the 5th instant. The deaths of persons aged sixty years and upwards (which had averaged but 267 in the three weeks ending the 14th ult.) have increased rapidly to 558 last week.

"HOP SUPPLEMENT."

An injunction has been granted by Vice-Chancellor Malins to restrain certain persons from manufacturing an article called the "hop supplement," a chemical composition which it was stated improved beer, and enabled the brewer to make beer with less hops. Its composition is a trade secret. It would be well that the ingredients forming such a compound should be known. Surely there must be some means of obtaining this information.

ROYAL COLLEGE OF PHYSICIANS.

Dr. Guy has been appointed Harveian Orator for the year 1875. The Gulstonian Lectures will be given by Dr. R. J. Lee, subject "Puerperal Fever"; the Croonian Lectures by Dr. Greenhow, subject "Addison's Disease"; and the Lumleian by Dr. Lionel Beale, who will lecture "On Life, and on Vital Actions in Health and Disease."

DR. B. W. RICHARDSON'S LECTURES AT THE SOCIETY OF ARTS.

The Cantor Lectures for the session 1874-75 are given by Dr. B. W. Richardson, F.R.S., who has taken for his subject "Alcohol: its Action and its Use." The course, consisting of six lectures, was commenced on Monday last, and will be continued, at eight o'clock, on the Monday evenings of December 14 and 21, of January 18 and 25, and of February 1.

HEALTH OF SCOTLAND.

The return for the week ending the 5th instant of the deaths in the eight principal towns of Scotland shows the total number to be 714—an increase of 112 on the number for the corresponding week of 1873, which was 602. Of this increase no less than 104 occurred in Glasgow, the number being last week 376 against 272 in the corresponding week of 1873.

## FROM ABROAD.

HETEROPLASTIC TRANSPLANTATIONS.

At a recent meeting of the Académie des Sciences, M. Benjamin Auger gave an account of his trials with "heteroplastic graftings." Having occasion to provide a covering for a very large burn, and not finding it practicable to obtain a sufficient number of epidermic graftings on the patient himself, he derived these from the amputated limbs of other subjects, and succeeded in effecting cicatrisation in this manner. This induced him to resort to dermo-epidermic grafts obtained in the same way, and which were employed with the same success. Believing, therefore, that he should meet with a similar result in transplanting portions of the entire substance of the skin, and even of the subjacent cellular tissue, he took grafts of one or two centimetres in circumference, consisting of the entire thickness of the skin, from the palmar surface of a finger amputated two minutes before, and bound them by diachylon on to an ulcer of the leg. Three days after they were found intimately united and manifestly vascular. In the same way grafts of the entire thickness of the skin were taken from a lumbar tumour, and finally the preputial mucous membrane taken from a young subject just operated upon for circumcision has been grafted. In all these cases the tissues transplanted still preserved their temperature, and were conveyed as speedily as possible.

Observation has shown that in four, five, or six days the epidermis covering the grafts becomes detached, leaving the surface denuded so as to resemble the integument to which a blister has been recently applied. The cicatrix, nevertheless, is rapidly formed over the whole surface of the graft and its periphery. This would seem to show that epidermic grafts only succeed on condition that a lamella of the dermis is united to the epidermis. As yet, M. Auger has only employed his method to obtain the cicatrisation of a large burn, but he anticipates numerous applications of it will arise. In choosing grafts we should of course, avoid taking them from the vicinity of malignant disease, or when the subject supplying them suffers from contagious disease.

CROTON-CHLORAL AND CHLORAL IN DISEASES OF CHILDREN.

Prof. Bouchut, in a note addressed to the *Gazette des Hôpitaux* of December 5, thus speaks of the comparative advantages of these substances:—

"Croton-chloral, which has been spoken of lately, does not possess all the properties of ordinary chloral, and is not destined to replace it. I may first observe that the hydrate of chloral has not the same action in the adult as in the child. In the former it is hypnotic, but does not produce anæsthesia, at least in the doses ordinarily given by the mouth. So acrid is its taste that it cannot be carried beyond from six to eight grammes, and even at this dose the stomach revolts, while absolute insensibility is not obtained from it. This is not the case in children, in whom the stomach supports the remedy better, so that with three or four grammes we can produce in them sleep and complete anæsthesia. So great is the insensibility that abscesses may be opened and teeth extracted without pain. In my ward, the children take the chloral at eight o'clock, and at nine the dentist extracts their teeth, they not waking until three hours later without being aware that any operation has been performed. Hundreds of cases have exhibited these facts to those who attend my hospital practice. Croton-chloral, of which I have made twenty trials, seems to me to possess but one advantage over chloral—that of having a less acrid and disagreeable taste. When sleep alone is desired the croton-chloral may be given, but if we wish to produce anæsthesia the hydrate of chloral is to be preferred, as in equal doses the croton-chloral is less active than chloral."

After detailing the experiments which he has made, showing that the croton-chloral exerts little or no anæsthetic power, Prof. Bouchut continues:—

"In presence of these results, it seemed to me useful to ascertain on the same subjects what was the action of chloral. As all these children were suffering from chorea, in which I have discovered the efficacious action of this substance, this was easy to do. To seven patients three grammes of chloral were given, and in five of these there was produced deep sleep, great resolution of the limbs, and sufficient surgical anæsthesia for opening abscesses or extracting teeth without pain. In the two others there was sleep of two hours and a half, but hardly any anæsthesia. To sum up: Croton-chloral has weaker properties than chloral. It induces sleep, and may be used as a hypnotic in cases in which we fear the irritating action of the chloral on the stomach; but if we wish to induce anæsthesia, chloral is to be preferred."

INHALATION OF CHLOROFORM AFTER TAKING CHLORAL.

A paper by M. Forney, a naval surgeon, recently read at the Société de Chirurgie, gave rise to an animated discussion. M. Lannelongue, reporting upon the paper, observed that M. Forney was induced to follow the practice he recommends in it by the results of some experiments performed by Prof. Claude Bernard, which proved that in animals anæsthesia produced by chloroform, even when inhaled in very small quantity, is much more complete and durable when sleep has been first induced by aid of a narcotic. For opium employed by Bernard, however, he has substituted chloral, which possesses all its advantages without its inconveniences. He gives from two to five grammes of chloral, and waits until the patient falls asleep, from one to two hours being generally required for this. This secured, from two to six grammes of chloroform were found, in the two cases related in the paper, sufficient to induce complete anæsthesia. M. Forney is of opinion that this procedure will prove of value in obviating the danger and inconvenience attendant upon the ordinary mode of chloroforming. The large quantities of chloroform required to overcome the active resistance so often offered by patients is not called for, and the danger arising from a large accumulation is avoided. The moral emotion is also saved to the patient with its depressing influence.

M. Lannelongue was not prepared either to accept or reject the procedure absolutely, believing that some advantages might attend its adoption, and that, at all events, it was deserving of further investigation. M. Dolbeau, however, did not view the matter in this light, believing that it would prove a very dangerous practice to administer chloroform to persons who had taken considerable quantities of chloral. He cited some cases from his own practice in which chloroform had been unwittingly administered after the patients had taken considerable quantities of chloral in order to relieve pains which they laboured under; and in these there were induced a torpidity and a general diminution of temperature which were very alarming,

reaction only being secured with great difficulty. As well as M. Forney, M. Dolbeau has remarked that very small quantities of chloroform are required to produce anæsthesia in individuals plunged in natural or artificial sleep; and he has undertaken numerous investigations in order to resolve a very important question in legal medicine—viz., whether it is possible to produce anæsthesia by very small quantities of chloroform in individuals who are in a state of natural sleep. He has determined that it would be easy for malefactors to completely anæsthetise with two or three grammes of chloroform an individual already asleep, in a railway-carriage for example, and rob him without the victim having the slightest consciousness of the fact. In his opinion there is advantage in giving chloroform during sleep, but on the condition that the sleep is not produced by chloral. M. Trélat, while approving of the theory of M. Forney's procedure, could not admit that his two cases of minor operations, which did not, indeed, for their execution require large doses of chloroform, were any proof of its practical value. Total or complete anæsthesia is only required for great operations, while for small ones one-half or a quarter of such anæsthesia is necessary, and may be induced by small doses analogous to those employed to relieve the pain of hepatic colic. M. Guyon had met with a case just like those mentioned by M. Dolbeau, in which the patient, having the night before the operation taken some grammes of chloral, remained for four hours after the operation in a state of alarming algidity, out of which he was only brought with great difficulty. M. Demarquay referred to numerous experiments which he had performed on animals, showing the great refrigeration which follows the administration of chloral. Even after the ordinary administration of chloroform, when only a few grammes are employed, syncope and algidity of a dangerous character sometimes occur; and if to the depressing effects produced by chloroform we add those induced by chloral, the difficulties and dangers will be much increased. M. Sée observed that other matters have to be taken into account besides the quantity of chloroform employed, for considerable quantities are administered to lying-in women without any ill effects. As to the struggling of the patient rendering more chloroform necessary in order to induce anæsthesia, M. Sée has remarked that just the contrary takes place, especially with children, it being just those who struggle the most who are the quickest subdued, and that because in their struggles they execute deeper inspirations and thus favour inhalation. M. Maurice Perrin observed that he had met with a case calculated to somewhat soften the sombre pictures drawn by preceding speakers. In a patient to whom chloroform could not be administered after seven or eight trials, owing to his extreme nervous excitability, this was easily accomplished after a preliminary sleep had been induced by three grammes of chloral, and the case did exceedingly well. In M. Perrin's opinion, the accidents referred to in the discussion arose from the large quantities of chloral that had been administered, this amounting to from ten to fourteen grammes. But such cases as these should not divert attention from what may prove a very useful procedure. There is truth in M. Forney's assertion that in dominating by means of chloral the excito-motory power of the nervous centres the employment of chloroform is rendered less dangerous, it being, in fact, by bringing the excito-motory system into activity that the dangerous and fatal accidents in connexion with the heart are produced. Experiments on animals have shown that when the animal is put to sleep the heart becomes insensible to all peripheric stimulation; so that if we paralyse the excito-motory power by means of chloral, we have no longer to fear the reflex action of peripheric stimuli on the heart and the accidents it gives rise to. M. Perrin therefore believes that this procedure deserves serious consideration, based as it is upon a true physiological idea. Chloroform carefully administered may suffice for all ordinary surgical cases, while M. Forney's procedure may be reserved for such cases of exaggerated nervousness as the one he had related. M. Rochard stated that M. Guibert has obtained excellent results in lying-in women by a preliminary hypodermic injection of morphia. A few inspirations of chloroform then suffice to enable the woman to go through her labour almost without pain, although the anæsthesia is never pushed so far as to produce loss of consciousness. M. Lannelongue believes that it will prove useful to call attention to the danger which sometimes attends the use of chloral, the action of which is as yet very imperfectly known. There are persons who only experience its effects very slowly after having taken from six to eight grammes, and then fall into a kind of sleep which may be termed "chloralic," as it does not resemble other forms of sleep, and is attended by a notably slow pulse and a tendency to coagulation of the blood. Such tendency would be increased by the addition of another anæsthetic agent. But if the association of these agents may give rise to hyposthenisation which proves too considerable for the economy, we must not forget that this is the case sometimes when chloroform is given alone. M. Lannelongue always employs chloroform with fear, and uses as little of it as possible; and the object of M. Forney's procedure being to diminish the quantity necessary to induce anæsthesia, he believes it is worthy of further consideration and trial.

## REVIEWS.

*Die Parasiten der Brustdrüse.* Von Dr. Haussmann. Berlin: Hirschwald. 1874.

*The Parasites of the Female Breast.* By Dr. Haussmann.

This work, which forms the second part of a larger one, "On the Parasites of the Female Generative Organs," deals with the vegetable and animal parasites which attack the mammary gland. Drops of milk from the breasts of suckling women are sometimes found microscopically to contain spores and bacteria in addition to their normal constituents. Some of the spores belong to different undetermined species of fungi, and appear not to undergo any further development; but the remainder are the spores of the oïdium albicans, and of the oïdium lactis, which Dr. Haussmann considers to be very nearly identical with the former. It does not appear, however, that these fungi can develope around the nipple, because an acid reaction is necessary to their growth, and this cannot exist owing to the abundant flow of alkaline milk. The only evil to which their presence in the milk can give rise is their transmission to healthy infants, and the development of thrush in their mouths in consequence. The trifling injury which can be produced by the vegetable parasites of the breast, and which can be prevented by a simple attention to ordinary cleanliness, renders them rather an object of scientific interest than of pathological importance. We may, therefore, pass on to the second part of the work before us, which deals with the animal parasites, or rather, parasite, of the female mamma. The echinococcus cyst is really the only undoubted animal parasite found in this organ, and Dr. Haussmann gives us a most admirable and complete account of all that is at present known about it. The following abstract embodies the main results at which the author arrives after an examination of all the known cases of the disease, sixteen in number, only twelve of which, however (among them seven reported by English observers), are available for framing its natural history.

Of these twelve undoubted cases, seven affected the right breast, and five the left. The cysts never involved the nipple or its immediate neighbourhood, though other parts of the gland were occupied by them indifferently. It is not certainly known how the echinococci reach the breast in the form of ova or embryoes, but they probably enter it from the portal system, through its anastomosis with the superficial abdominal veins, by the small veins which anastomose with the portal system. The perfect cysts lie in a simple rounded cavity formed by the displacement of the lobules of the gland and of the connective tissue between them; and its walls, which are about one centimetre thick, consist of interlacing fibres. If the parts near the cyst be irritated by friction or in any other way, it is not unusual for a sero-purulent or even a purulent fluid to form between the cavity containing the cyst and the cyst itself. The general characters of the echinococci exactly resemble those found in other parts of the body, and require no special description. The fluid these contain is clear and non-albuminous, but it has not as yet been examined for chloride of sodium. The quantity varies between fifteen and 510 grammes. The echinococcus has seven times been found as a single cyst with scoleces on its inner wall, and in these cases it was with one exception the only echinococcus in the body. The other form in which it appears is as an hydatid cyst containing from one to four or five daughter cysts. The smallest of the mother cysts was as large as an apple, while the largest reached the size of a man's fist. The multilocular hydatid has never been found in the mammary gland.

The early symptoms to which the echinococcus gives rise in the breast are usually very trifling. The presence of the

cyst excites no pain, and it may reach the size of a hen's egg before it attracts much attention from the patient. A feeling of weight and tension in the breast is now complained of; the arm cannot be as freely moved as before, and there is sometimes tenderness on pressure. There are not unfrequently pains in the axilla and the arm of the affected side, and in uncomplicated cases a rounded, smooth, elastic tumour is found on examination projecting from the gland, but completely movable under the skin, and non-adherent to the pectoral muscle. It generally fluctuates distinctly. The growth of such cysts is extremely slow; they may remain unaltered in size in some cases even for years, and then suddenly, in a relatively short space of time, increase considerably in size. Such rapid increase has been known to follow lactation and mechanical injuries, and has sometimes occurred without any assignable cause. It not unfrequently happens that, owing to blows, exploratory punctures, or overuse of the arm, inflammation is set up between the cyst-wall and the skin, or else in the skin alone. An abscess forms, and at last breaks and discharges a scanty pus; and finally, when the opening becomes sufficiently large, the cyst is thrown off, either as a whole or bit by bit. As a rule, the general health is unaffected by the presence of the echinococcus, with the exception of slight feverish symptoms during the progress of suppuration. Statistics show that the mammary gland is one of the rarest situations of the body in which the echinococcus occurs, but still it is found there more often than in the female sexual organs. There are only two primary tumours of the breast which are rarer than the echinococcus—the lipoma and the enchondroma.

It is probable that the reason why the breast is less frequently affected by the parasite than other organs depends to some extent on its greater distance from the vessels which pass from the stomach into the portal system. There is no instance recorded in which echinococci of the lungs penetrated the mamma, or in which they have reached it by ulceration from the pleural cavity.

The differential diagnosis from other tumours of the breast appears not to be very difficult, if all the circumstances of the case are carefully considered; sarcomata and myomata, as well as scirrhus, grow too rapidly to be mistaken for it. Abscesses have a different origin and course; but simple cysts appear to be excessively difficult to distinguish from echinococci. The lipoma seems to be the most likely tumour to be mistaken for the parasite, on account of its slow and painless mode of growth, but it differs from it by its lobulated feel. Fibromata resemble echinococci in the slowness of their growth, but they are much tougher and harder, and they do not ulcerate. For further details as to diagnosis we must refer our readers to the original monograph.

The prognosis of echinococcus in the breast is far more favourable than it is in any other organ, and the disease can be completely and permanently cured. The best treatment appears to be the removal of the cyst by means of a large incision, according to the method of Sir Astley Cooper, Mr. Birkett, and others. A simple puncture of the cyst and withdrawal of its fluid is not sufficient to destroy the echinococcus, for the cyst always refills immediately.

A short chapter on parasitic worms which are said to have been found in the mammary glands forms a kind of appendix to Dr. Haussmann's work. The author's conclusion, after a most extensive perusal of all the works, ancient and modern, that deal with the subject, is that the accounts which are given of the presence of lumbrici and other worms in the female breast are founded on error, and have arisen from imperfect and unsifted observations.

Dr. Haussmann deserves the highest credit for the care and diligence with which he has collected so much information as his monograph contains, and anyone who wishes for a good list of authorities on diseases of the breast may consult it with advantage.

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Fracture of both Patellæ from Muscular Action.—Dr. Marcy relates the case of a strong woman, aged thirty-eight, weighing 170 or 180 pounds, who, while crossing from the curb-stone to the street, by a misstep turned the foot obliquely, and, to save herself from falling, made violent muscular exertion, and fell down. Both patellæ were found to be transversely fractured near the middle, with a separation of two inches. Ligamentous union followed, the fragments being separated from a quarter to half an inch.—*Boston Journal*, October 8.

# FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, November 5.

Scientific Progress—Public Health—Efforts to Harmonise the various National Pharmacopœias.

It is pleasant to notice the growing evidence in every quarter of a more general interest in sanitary questions, and the solution of social problems affecting the community at large. Never before has this country presented the spectacle of such noteworthy gatherings of intelligent and earnest votaries as are during this year assembled in the interests of medical, sanitary, general, and social science. Only a few month since, chemists from all parts of the Republic gathered together to celebrate what was rather fancifully styled "The Centennial of Chemistry," one hundred years having elapsed since the distinguished Priestley, of Northumberland, in this State, discovered oxygen. One would think that chemistry had been an unknown mystery previous to that important revelation, and that this remarkable element—the capital O, which to the uninitiated seems scarcely more than a cipher in its association with the other chemical symbols—had in its birth blotted out the remembrance of all the erratic chemical formulæ of more benighted ages. Whatever name the occasion deserved, however—whether the centennial of oxygen or of modern chemistry,—it was a most interesting one to the whole scientific world, for it gave the latter an opportunity of reviewing the wonderful progress of the science while a hundred years had been revolving around it, and for congratulation at the splendid results which had been everywhere achieved. Few who read the proceedings of this celebration but would glory in the grandeur of the theme, even if they occasionally felt almost hopelessly lost in the intricacies of the paths which penetrated it on every side. I allude to this as one of the memorable occasions of the year for scientific men; those of a purely medical character I referred to at some length in previous letters. Each large city has its medical, medico-legal, or public health, and other kindred associations actively at work; but a more general attention is of course directed to those having a State or national organisation. Hence the annual meeting of the American Public Health Association in this city on November 10 will be of especial interest, and, as an exposition of the present sentiment of the country in regard to sanitary matters, will possess attractive features, it is to be hoped, to the readers of your journal in England. I shall therefore devote my next letters mainly to a discussion of its proceedings. We hope to have in 1876 the aid and encouragement of many of your own champions of social, professional, and sanitary advancement, by their personal presence among us, it being the universal wish that our centennial celebration shall be not only national, but in the extension of courtesies, in the spirit of friendly rivalry and appreciation, and, in the ennobling influences of intellectual intercourse, thoroughly, sincerely, and cordially international as well. The invitation may hereafter be more formally extended, but it is even thus early freely referred to here as a matter of course, and we do not intend to be disappointed in the opportunity of "welcoming the coming," but not, we trust, of too soon "speeding the parting guest."

While referring to international matters, it may not be inappropriate to allude to the efforts which have been recently made to harmonise the various national pharmacopœias. Abroad, during the autumn, as you are well aware, the International Pharmaceutical Congress at St. Petersburg referred the universal pharmacopœia, presented by Dr. Méhu in the name of the Paris Pharmaceutical Society, to a committee, who should examine the same, and send it to all pharmaceutical societies for further discussion and action. A few days earlier than this the subject had also engaged the attention of the British Pharmaceutical Conference, while in September the officers of the American Pharmaceutical Association, which held its twenty-second annual meeting at Louisville, Kentucky, were empowered by a resolution of the society to enter into correspondence with any international body that may be created, for the purpose of attempting a unification of the plans upon which the different pharmacopœias have been constructed. The great obstacle seems to be, apart from any scientific impediments, the difficulty of overcoming or mollifying

national vanity, which naturally has so strong a hold on each country, inducing it to believe in its own standard as the wisest and best. Certainly much prejudice must be removed before the end can be satisfactorily attained. From a pretty thorough study of the Parisian Codex I can safely aver that the task of thorough rearrangement to modernise it into the habiliments of the present age of enlightenment will be herculean. The first step to be taken will of course be to obtain a correspondence in weights and measures, and, if possible, of officinal names in preparations that have a family likeness. It has also been remarked here that the only way in which we can harmonise with the British Pharmacopœia will be by adopting that standard in its entirety, those probably being the only terms which would be satisfactory to our Transatlantic brethren; but the remark is ungenerous, and might be so applied to ourselves by those who doubted the existence of a mutual spirit of concession in matters of direct interest to us both.

In the *American Journal of Pharmacy* for July I find an article by Professor Charles Hermon Thomas, of this city, on "A United States and British International Pharmacopœia," which, I notice, was referred to at the British meeting by Mr. T. B. Groves, F.C.S., in the annual address. Doubtless, as the latter remarked, this suggestion for a general pharmacopœia for all English-speaking communities is a very good and seemingly practical one. I have no doubt myself that this Anglo-American step will be the first one taken, but I feel confident that several years will elapse before the discordant elements of other nationalities will be made to harmonise. As was remarked in the *British and Foreign Medico-Chirurgical Review* in January last, "there is an almost constant departure in the United States Pharmacopœia from the directions given in the British Pharmacopœia in the matter of proportion of ingredients used; so that, whilst many tinctures and infusions are considerably stronger than ours, there are many weaker." Illustrations of this view are given in that journal, but there is a difference in the officinal weights and measures (says the editor of the *Journal of Pharmacy*) which has evidently not been taken into account in comparing the strength of the tinctures and infusions of the two pharmacopœias. These differences are not by any means insurmountable, and we trust the time will ere long arrive when it will no longer be a source of regret that "greater uniformity in this matter, between two nations speaking the same tongue and so intimately bound together by social and commercial ties, does not prevail." As Dr. Thomas remarks, while lamenting the unsymmetrical character of the national pharmaceutical standard, the value of the best British text-books to the American reader is seriously impaired by the variations in strength and dosage of preparations almost identical perhaps in name. He suggests that the United States and British Pharmacopœial authorities should unite in putting into force the rule established by the Scandinavian nations at their International Convention held in 1865, when the Pharmacopœias of Norway, Sweden, and Denmark were unified, and which rule is to express the relative quantities used in pharmacy in proportional parts by weight; as, for example, two parts by any system of weight of the first ingredient, four of the second, and one of the third, etc., thus securing like relative proportions in all standard compounds.

## PROVINCIAL CORRESPONDENCE.

### LIVERPOOL.

December 7.

BURIALS AT WALTON CEMETERY—SMALL-POX AMONG EMIGRANTS IN LIVERPOOL—HEALTH OF THE BOROUGH.

FREQUENT complaints having been made in the form of letters to local newspapers concerning offensive smells emanating from different parts of the cemetery at Walton, which belongs to the parish authorities of Liverpool, Dr. Holland, Government Inspector, held an inquiry in reference to them on the 20th ultimo. During the inquiry and examination more than one practice came to light which will require, in the interests of the public health, to be discontinued. For example, the boarding which covered a grave where an interment had taken place a day or two before Dr. Holland's visit having been removed, he found that the soil on the coffin was only three inches and a half deep. It was also stated by the chaplain that any corpse which, having been found in the water and made the subject of an inquest, was brought to the cemetery after half-past two, was deposited in the grave, but not covered with any soil whatever until the next day. So, also, bodies, whether of those who had died from infectious disease or not, were often placed in the graves, over which merely a wooden lid was placed, until the arrival—sometimes hours afterwards—of the relatives, when the lid was removed, and emanations, if any, were liable to be breathed by those standing around during the reading of the service.

As the result of his inquiry the Inspector has expressed his intention of recommending an Order in Council directing the ground to be efficiently drained, and that one body only should be buried in the same grave on the same day, and no coffin within a foot of any other coffin or less than four feet beneath the surface of the ground.

These recommendations will, it is to be presumed, apply equally to the cemetery which belongs to the parish of Liverpool and to the adjacent one which is under the direction of the West Derby Board of Guardians; and it is but just to the latter body to state that the ground is now in process of being drained by their orders.

An incident has just occurred which demonstrates in a very striking way the peculiar dangers to which Liverpool, as the largest emigration port in the empire, is continually liable to be exposed, and which points also to a manifest defect in the law which relates to the public health. On the 23rd ult. a large vessel sailed from Antwerp to Philadelphia, having on board between 300 and 400 emigrants, chiefly northern Russians and Germans. A collision having occurred between herself and another vessel—the *Indus*—off Dover, she was obliged to put into the Thames for repairs; and while in the Victoria Docks was found to be infected with small-pox, which had begun to spread among the emigrants from a boy, who is said to have been shipped with them at Antwerp while still labouring under the disease. Eight cases were removed to the Homerton Small-pox Hospital, and the remainder, all of whom were supposed to be healthy, were forwarded by the Great Western Railway to Birkenhead. At the same time a telegram was sent to the proper quarters providing for the shipment of these presumedly healthy emigrants (over 300 in number) in the *Illinois*—a large vessel ready to sail for America. All were on board, when, at "clearance" time, the Government Medical Officer, Dr. Spooner, found five undoubted cases of small-pox, besides others that were suspicious among them, and of course refused to give the necessary medical certificate to the ship. Some seventy of the emigrants were vaccinated, and those who were the subjects of disease were removed to the Hospital for Infectious Diseases, while with some difficulty arrangements were made for receiving the remaining 301 in the Liverpool Workhouse, the cost of maintenance being guaranteed by the owners of the *Illinois*, though, even in the absence of such a guarantee, the payment is partly provided for by the Emigration Act. Thus far, whatever danger there existed was known, and could to a certain extent be met; but a later train brought fifty more of these emigrants from London, and these, not going on to the *Illinois* at all, are now distributed among the various lodging-houses of the most overcrowded town in the kingdom, which distribution the local authorities had no legal power to prevent, even if they had been apprised sufficiently early of the possibility of its taking place. Here, then, is an obvious defect in the law. A number of persons are for a considerable time in direct contact with a source of infection, some of whom are almost certain in a short time to be stricken down, and all of whom may be carriers of infection to others, and yet until they are actually affected with disease they are beyond the control of the medical officers, and are at liberty to go and spread danger wherever they please!

Others of the emigrants accommodated at the workhouse have since become the subjects of variola, and have had to be removed to the hospital, where one has died. The disease appears, thus far, to be confined to the Russians, no German having been affected.

This, as I said above, is a not uncommon instance of the dangers to which Liverpool is exposed, and those who criticise her acknowledged unhealthiness so severely should give due consideration to the many unfavourable circumstances which are peculiar to her.

Independently of this new importation of disease, the health of the borough is bad. Scarlatina still prevails, sixty-eight deaths having occurred from it alone last week, the entire mortality being at the rate of 39 per 1000 per annum.

## REPORTS OF SOCIETIES.

### CLINICAL SOCIETY.

FRIDAY, NOVEMBER 27.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

NEARLY FATAL POISONING BY CHLORAL HYDRATE.

MR. HULKE read notes of the case. A young lady, aged twenty-three, was supposed to have taken four ounces of syrup of hydrate of chloral; at all events, she was known to have had a bottle containing this amount in her possession a few hours previously, and the bottle was subsequently found to be empty. Within a very short period of taking the dose, when seen by Mr. Hulke, she was found to be perfectly insensible, breathing slowly and laboriously, almost stertorously; her face was dusky; her radial pulse small and very weak; and her pupils were extremely contracted. During the next five minutes (which period was occupied in procuring a stomach-pump) her face became very purple, and her breathing so feeble that it was feared to introduce the tube into the stomach, lest some possible pressure on the root of the tongue and epiglottis might extinguish life altogether. A few acts of Silvester's method of artificial respiration lessened her lividity; the stomach-pump was then introduced, and some warm water pumped in, which, upon being withdrawn, was thought to smell of chloral. During this proceeding the patient again became livid; the use of the tube had consequently to be discontinued, and Silvester's method resorted to, when her colour speedily improved. The tube was then reintroduced, and a cup of very strong coffee injected into her stomach. A similar amount was also thrown up the rectum. The case now seemed hopeless: the radial pulse could scarcely be felt, and natural respiration could only be maintained by supplementing it at short intervals by the Silvester method. A few minutes after the injection of the coffee a slight improvement was observed in the pulse and respiration, which was maintained. About forty minutes after being first seen she slightly opened her eyes and spoke. Her first words were imperfectly articulated and unintelligible. In another half-hour she was so far improved that her breathing was perfectly natural and she was quite conscious. She suffered no further relapse, and recovered entirely from the effects of the poison. She had since become insane.

MR. PUGIN THORNTON related the particulars of a case of delirium tremens, where eight drachms of chloral hydrate were administered within thirty-three hours and a half. The delirium was not relieved thereby; on the contrary, the patient recovered as soon as the chloral was stopped.

DR. FARQUHARSON said that records of cases of chloral poisoning were interesting now that "chloral-eating" was so common. The symptoms of an overdose of chloral varied in different cases. Sometimes the heart was immediately acted on, fainting being a symptom; at other times the effect was more upon the pneumogastric nerve. It was a question whether these differences were to be referred to idiosyncrasy or to the quality of the drug—that is, to impurities. Chloral was often impure, and Liebreich had said that the administration of it in this condition is the cause of the preliminary intoxication sometimes observed after its exhibition. Liebreich had also observed that chloral acts badly in gout, because the alkalinity of blood necessary for its decomposition is not present in that disease. Dr. Farquharson himself had found that in acute rheumatism large doses of chloral had not only not done good, but had even caused delirium. As for the dose of chloral which might be given, he had used as much as six drachms a day in neuralgia.

DR. RHYS WILLIAMS said that in Bethlehem Hospital the results of the use of chloral had been rather unfavourable. As regards large doses, he had given in one case of chronic insanity as much as two drachms every four hours, and that without either relieving the symptoms or inducing sleep.

DR. HEADLAM GREENHOW remarked, in reference to the therapeutics of chloral, that in delirium tremens he had used it eight or nine times, and with the result that he was better satisfied with it than with any other drug he had tried. He administered ten grains every few hours until sleep supervened. In rheumatism the theoretical objection to chloral was plausible; but as a matter of fact he had found chloral useful in the disease. Chloral hydrate was, however, very much like other drugs, uncertain; and his rule was to give it a fair trial, and, if the result were unsatisfactory, to try something else.

MR. THORNTON inquired of Mr. Hulke whether there was any known antidote to hydrate of chloral. Was strychnia, for example?

DR. SOUTHEY said that in the case just read it was not impossible that some other poison had been taken besides chloral. The symptoms were not unlike those of opium poisoning. He had seen chloral given, without toxic effects, in thirty-grain doses every four hours.

MR. BRUDENELL CARTER wished to know whether there really is sufficient evidence of diminished alkalinity of rheumatic blood. A gouty patient had told him that the discovery of chloral was to him a source of untold bliss and happiness.

MR. HULKE replied, that, in regard to an antidote, the effect of the administration of coffee was most encouraging. As to Dr. Southey's remarks about the possibility of opium having also been taken, he had himself such a suspicion when he saw the case; the face was, however, more flushed and excited than is generally seen in opium poisoning. Dr. Greenhow and others had spoken of the uncertainty of chloral as a sedative; he could confirm this, but believed that it was due more to the peculiarity of the patient than to impurity of the drug. He had prescribed chloral from the same specimen to many cases of cancer simultaneously, and found the effects exceedingly different, but perhaps not more so than those of opium.

A DOUBTFUL CASE OF CUTANEOUS DISEASE.

DR. ROBERT LEE exhibited the patient, a girl three years of age, as the exact nature of her malady was not agreed upon by many who had seen it. A sketch of the case by Dr. Westmacott was also handed round. The patient was admitted into the Hospital for Sick Children, Great Ormond-street, on October 22, was in good health, and was one of five children, whose family history was inquired into without affording any point of interest in the case. On the left side of her body, just below the margin of the last rib, was a fine convoluted line not more than a twelfth of an inch in diameter, and slightly elevated above the surface of the skin, which was twisted backwards and forwards upon itself within a space the size of the palm of the hand. The termination of the line was somewhat larger than the line itself. On close inspection, a dotted or catenated appearance was observable in it, which might lead to the supposition that it was a lymphatic vessel. There was vascular redness accompanying it, much like that which surrounds a small herpetic vesicle. In a considerable part of its length the distinct characters specified could be detected; but it would be found that there were traces of the same condition on the back; and, if the drawing by Dr. Westmacott were examined, the representation which he had given three weeks before, when the right side was affected, would be found to correspond to that now seen on the left side. The fact was, that the mother had observed the commencement of the disease on the inner side of the right ankle three weeks before she had brought the child to the hospital. The line had travelled like a comet up the inner side of the right thigh, had turned across the right side of the abdomen, and when first seen very much resembled its present appearance excepting in locality. It would sometimes progress at the rate of from half an inch to an inch in the twenty-four hours. It had passed back to the spine, and then forward again over the right side of the abdomen, back again to the spine, thence across to the left side. It was accompanied by very slight irritation. The surface had been examined, and the epidermis removed without result.

MR. HULKE inquired how the line moved.

DR. LEE replied that it moved like a comet, leaving a faint trace behind it.

DR. MOXON, after examining the patient, said that it was a significant feature in the case that the child was the subject of factitious urticaria. With such a patient one could trace upon the skin whatever lines one's ingenuity might suggest. He did not say that this was the explanation of the present eruption, but that the fact must not be overlooked.

DR. SAVAGE was personally acquainted with factitious urticaria; but the condition did not last with him for more than half an hour at a time, and the mark would not remain.

DR. MOXON suggested that Dr. Savage would require to scratch rather deeper.

THE PRESIDENT proposed that a committee should be named to investigate the case at the hospital.

DR. ROBERT LEE replied that factitious urticaria was not uncommon, but not the cause of the marking in the present

case, otherwise the scratching and pinching to which the child had been subjected would have caused much more. It had been suggested by Dr. Bristowe that the disease was erythema marginatum.

Removal of a Tumour by means of the Elastic Ligature.

Mr. Henry Lee read notes of the case. The patient, aged fifty-five, was admitted into St. George's Hospital with a large tumour on his back, which consisted of two parts, divided by an hour-glass contraction on a level with the skin. The outer portion projected for some inches, and in shape and size resembled an ordinary cauliflower. The inner portion, more flattened, could be felt readily movable under the skin. An elastic ligature was passed several times round the centre of the tumour on a level with the skin, and tied. Half an hour after the operation the patient complained of pain, which was afterwards explained by the fact that a portion of the skin to which the tumour was attached had been included in the ligature. At the expiration of the fourth day the tumour was falling off, and the remaining portion of the pedicle was cut through with a pair of common scissors. The tumour had entirely sloughed, and there was not the slightest appearance of bleeding in the divided pedicle. A fortnight after admission the remainder of the tumour was operated on. An incision was made through the skin only so as to separate the diseased margin; three large curved needles were then passed underneath the tumour, and the elastic ligature was again applied as before. Care was taken that every turn of the ligature passed into the incision made in the skin. The patient now complained of scarcely any pain after the operation. At the expiration of three days this part of the tumour was almost detached, and had completely sloughed. The pedicle was divided with a pair of common scissors, without pain or hæmorrhage. The patient left the hospital with a healthy granulating wound one month after admission. The tumour weighed six ounces and a half, and a considerable portion was lost in the discharge and small portions of slough which had come away; so that, in all probability, it originally weighed double that amount. It had first made its appearance twelve months previously; at the end of four months it had ulcerated, and, after six months' growth, had been removed by the ordinary ligature. It began to grow again seven days after removal. Mr. Lee remarked that the tumour might no doubt have been easily removed with the knife, but he thought it a favourable case to demonstrate the action of the elastic ligature, which no doubt had advantages in certain cases. In the first place, it acted without loss of blood; and this, in the case of large nævi for instance, was a great advantage. Secondly, the elastic ligature remained tight until the tumour sloughed or was in a great part detached. Thirdly, patients would sometimes submit to an operation by ligature when they objected to any cutting operation. A patient with a fistula in ano, for example, who dreaded the knife, might have no objection to the operation by elastic ligature, and the operation could be perfectly well and speedily performed in this way. In applying a ligature to a large tumour or to a very vascular part, as the tongue, it was of great importance that it should not get loose, which a common ligature would necessarily do so soon as some amount of ulceration had taken place, from which cause some very awkward accidents had happened. The elastic ligature which Mr. Lee used was procured for him by Mr. Blaise, not without some difficulty; it came from Derby, there being none of the same description in London. The deeper part of the tumour might have been removed without dividing the skin at all, for the elastic ligature might be guided by needles properly placed, so as to dissect its way between the skin and the subjacent tumour. But in this case, as the margin of the skin had been involved in the morbid growth, the line of action of the ligature was marked out by the division of a portion of the skin with the knife, and this rendered the subsequent action of the ligature comparatively painless.

Mr. Pick remarked upon the subject of "bloodless surgery"—so-called. He had found very much oozing after Esmarch's method. He was aware that cancerous tumours were now removed by sulphuric acid. He had applied a bloodless method to the treatment of chronic abscesses. Aspiration and opening under carbolic acid having failed to give sufficient results, he had resorted to the use of potassa fusa, which he placed on the most prominent part of the abscess and allowed to make its way in. His results were very favourable.

Mr. Hulke remarked that, while he would not gainsay the use of the elastic ligature in some cases, he believed that in removing cancers where one wished to discriminate there was a more discriminating method of operating. Mr. Hulke said that he felt very strongly that there was a better method than the elastic ligature in such cases. It was true that tumours might be so removed without immediate loss of blood, but there might be great secondary hæmorrhage. He then briefly related the details of a case of secondary hæmorrhage from the carotid artery after the removal of a cervical tumour by the elastic ligature (see a report of this case, *Medical Times and Gazette*, 1873, vol. ii., p. 607).

Dr. Porter, of Boston, America, narrated his experience of the elastic ligature, as it had come under his observation in the wards of Professor Dittel in the Krankenhaus of Vienna. The result, as far as Dr. Porter saw, was unfavourable. Several cases of scirrhus of the breast were treated in this way, the ligature being applied for seven, ten, and fourteen days respectively. So much suppuration and odour resulted that antiseptics were required to be constantly used. The students ridiculed the operation. As for hæmorrhage, there were times when the wound would bleed in the night, and styptics be required; and there were evening exacerbations, a rise of temperature, and the symptoms of surgical fever. Altogether the American students at Vienna threw cold water on the method by the elastic ligature.

The President said that Mr. Hulke must not think that Mr. Lee was inclined to operate on cancer by the ligature; he was not. He had only tried the method in this case. He would not apply the ligature to the breast.

Mr. Lee replied that he had once proposed to operate on a mamma by the ligature (in a patient of the President's, and in his absence), on account of the danger of hæmorrhage from the knife; but he did not. Discrimination must be used. The ligature was useful in nævi, for example.

Scrofulous Ulceration of the Bladder running an Unusual Course.

Mr. Edwin Humby read the notes of the case. A little girl, aged nine, had suffered for some time from irritability of the bladder, accompanied by pain in micturition. The urine was ammoniacal, and contained soapy mucus, but no blood. Under the supposition that there might be a stone in the bladder, she was seen by Mr. Prescott Hewett, who diagnosed scrofulous ulceration of the bladder, and prescribed cod-liver oil and iron. Subsequently the child had some febrile symptoms, which were followed by the appearance of a swelling between the umbilicus and pubes. The swelling became red, tense, and eventually pointed, and appeared about to burst; instead, however, of doing so, a large quantity of pus was passed by the bowel, and the swelling for the most part subsided. From this time it varied much in size, in accordance with the amount of discharge from the bowel: occasionally it was tympanitic, being filled with flatus. Subsequently a small perforation took place in the swelling at the umbilicus, and through this a thin watery fluid oozed until the child's death. At the post-mortem examination, the bladder was found to be very much thickened, with extensive ulceration of its mucous membrane and patches of tubercular deposit between it and the muscular coat. In front of the bladder was a circumscribed cavity containing pus, and communicating with the bladder behind and with the perforation of the abdominal wall in front. At the back of the bladder was a second perforation leading into the rectum. The other organs were healthy.

Mr. Warrington Haward said that these cases of scrofulous disease of the bladder were interesting, because they so closely simulated calculus. One means of diagnosis was the fact that in scrofulous disease the pain is worse before micturition—probably from stretching,—and is relieved when the water is passed. The other symptoms were hæmaturia, increased by exercise, pus in the urine, pain, and frequent micturition. Sounding should be avoided—at any rate, more than once. In one case Mr. Haward had seen this followed by severe hæmorrhage. Mr. Thomas Smith had pointed out, in a paper on the subject, that not only the bladder, but the ureters also, and the pelves of the kidneys, are affected, and that renal calculus may be simulated. He had himself seen hæmorrhage follow examination of the kidney by manipulation in such a case, which was cured by cod-liver oil and steel. These remedies were usually successful. He had never seen a case proceed to abscess or ulceration into the bowel.

Mr. Brudenell Carter related a case of a female patient, the mother of children, who suffered from an abscess in the

lower part of the abdominal wall and a tumour in the vagina. The abscess was opened and discharged much pus, but refilled, and symptoms of poisoning supervened. A trocar was therefore passed into the vaginal swelling, and a quantity of pus having been evacuated, the canula was pushed upwards to the external wound, and the trocar after it, so as to re-establish a counter-opening. A drainage-tube was tied in: the patient mended, and in a few weeks only a serous oozing remained. The tube was then removed, when Mr. Carter was surprised to find it coated with phosphates, proving that it had been in contact with urine. The cure was, however, complete.

The PRESIDENT described a case, which had been under his care, of scrofulous ulceration of the bladder, and in which a pouch was formed in front of the rectum, obstructing the fæces. This pouch could be felt through the rectum, and was readily opened by the finger alone, and much pus discharged. On the patient's death, after a time, the diagnosis of scrofulous disease of the bladder was verified. As regards the case just read, it was peculiar, inasmuch as "the other organs were healthy." This was very unusual: the ureters, etc., were generally diseased; and if the patient recovered, he might die of phthisis. Recently the President had seen scrofulous disease of the bladder and of the knee in one patient.

## THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 1.

Sir WILLIAM JENNER, Bart., M.D., President, in the Chair.

### CHONDROMA OF THE LACHRYMAL GLAND.

MR. BUTLIN exhibited a specimen of Chondroma of the Lachrymal Gland removed by operation from the orbit of a man of twenty-eight years of age, in whom it had been growing for nine years. Five years ago a portion of the tumour had been removed. The tumour had caused protrusion of the globe, which was pushed forwards and downwards; the axis of vision and the nutrition of the eyes were disturbed. It was easily shelled out after incision in the upper lid; the globe then returned, and vision improved. Since the operation the eye had been sufficiently moistened. The microscopical as well as the naked-eye characters of the growth were those of cartilage; the cells were stellate, oval, or otherwise shaped. Fibrous tissue was also found, infiltrated with leucocytes; and some follicular structure, which was apparently the remains of the gland tissue. Altogether the structure of the present tumour closely corresponded with that of others previously recorded. Cartilaginous tumours of the lachrymal gland were, however, rare. Virchow had mentioned a case very similar in its history to the present.

The PRESIDENT inquired whether the patient could weep with the eye after the operation.

Mr. BUTLIN replied that he did not know.

Mr. HULKE remarked that it had been abundantly proved that removal of the lachrymal gland does not affect the moisture of the eye. On the other hand, there were grounds for believing that the lachrymal gland is constantly secreting, and shedding its secretion; he had himself observed in two cases of true lachrymal fistula a constant flow of tears.

The PRESIDENT said that no certain conclusions could be drawn as to the normal function from secretion under such pathological conditions as a fistula.

### OSTEOMA OF THE SUPERIOR MAXILLA.

Mr. BUTLIN also exhibited a specimen of Osteoma of the Superior Maxilla, the whole of which bone along the growth had been removed by operation from a man of thirty-nine. The man, an agricultural labourer, had been struck on the face with a bottle at the age of eighteen years; and ever since the accident there had been local swelling. When first seen the patient presented the signs of an outgrowth from the right superior maxilla. Last August a large abscess was opened below the orbit. In September the entire bone was removed; there was a good recovery. The growth proved to be composed of ordinary compact tissue as in exostoses. The case was of interest from its duration of twenty-one years, while the pain was not great.

Mr. CHRISTOPHER HEATH said that the tumour was so hard and so close to the alveolus that there might be a dental element in it. Having learned from Mr. Butlin that the lower part had not yet been examined, Mr. Heath added that this portion might be a conglomerate mass of tooth-tissue, called an odontome. Such a growth could easily be removed by shelling out. The induration around might be the result of irritation.

### ROUND-CELLED SARCOMA OF THE CEREBRAL PIA MATER.

Dr. CAYLEY showed a specimen of Sarcoma of the Pia Mater of the Brain of a woman aged fifty-eight years. The patient was admitted with slight hemiplegia and inability to answer questions, albuminuria, and œdema of the legs. She was reported to have suffered from headache and from hemiplegia for three months. She died in a few days. Post-mortem the cerebral hemispheres were found separated in front by an orange-sized tumour, which rested on the corpus callosum, and had hollowed out the neighbouring convolutions, especially on the right. The right corpus striatum was somewhat atrophied. The tumour was not adherent to the nervous tissue. Its substance was of moderate consistence, and of yellowish-white colour; it consisted of round or oval cells, as large as leucocytes, in a delicate stroma, which presented very fine alveolation.

### POPLITEAL ANEURISM CURED BY PRESSURE.

Mr. HULKE exhibited a specimen of Aneurism of the Popliteal Artery Cured by Pressure, and associated with aneurism of the aorta. A male patient of forty-four, in the Middlesex Hospital, was cured by fourteen days' pressure of an aneurism in the ham as large as an orange. This happened in April. A fortnight ago the man died suddenly of aneurism of the aorta. The popliteal aneurism was found on dissection to be reduced to the size of an acorn, and to be full of tough decolorised fibrine. The aorta was found dilated, and near the valves a small rupture had occurred.

Mr. HOWARD MARSH having inquired as to the means of pressure adopted,

Mr. HULKE replied that two tourniquets were employed—above and below Poupart's ligament respectively, and alternately applied.

Mr. CARR JACKSON remarked that an aneurism may in this fashion appear to be cured, but may in time return. He had known one case quiescent for two years.

### PARTS AFTER RESECTION OF THE HIP- AND ELBOW-JOINTS.

Mr. WILLIAM ADAMS showed specimens of this nature. Three of these were from the hip-joint, and served to illustrate most of the leading conditions necessitating operation. The first was an example of caries and necrosis destroying the head of the femur in a girl of fourteen who had suffered for nearly half her life. The acetabulum was nearly healthy. The result was good. In the second specimen the state of matters was very different—the head of the bone had suffered only from some superficial caries, while the acetabulum was much destroyed, and included a loose sequestrum. The patient, a girl of seventeen, died afterwards with pelvic abscess and disease of the kidneys and lungs. The third specimen illustrated primary necrosis of the head of the femur, which contained one large sequestrum and several smaller; the pelvis was not much affected. This patient left the hospital improved. Altogether this series showed the effect of the seat of the disease upon the result of the operation. The second series comprised a single specimen from the elbow-joint. The parts were removed from a young lady of sixteen, who had been over-worked and under-fed in a German school, and had suffered for two years. The result of excision was favourable, with free and perfect union.

Mr. HOWARD MARSH, in opening a discussion on the clinical aspect of disease of the hip-joint, referred to the difficulty of watching cases for a sufficiently long time after operation.

Mr. CARR JACKSON said that the specimens exhibited showed only too clearly the condition of the bone after years of disease—namely, atrophy. The disease might return after excision, and amputation be rendered necessary.

Mr. CHRISTOPHER HEATH also spoke on the question of excision.

Mr. HULKE joined in the discussion, and related a case in his own practice at considerable length.

### TWO CASES OF ANEURISM OF THE ARCH OF THE AORTA.

Dr. DOWSE exhibited an Aneurism of the Arch of the Aorta, which he removed from the body of a man aged thirty-one who was under his care in the Central London Sick Asylum at Highgate. The clinical signs and symptoms were—hæmoptysis, angina, urgent dyspnœa, and dysphagia, but no dysphonia. There was dulness upon percussion over a widely

increased præcordial area, and a well-marked thrill was felt in systole. A rough systolic grind was heard over all the valves, but more particularly over the arch of the aorta. There was also a diastolic aortic murmur. Post-mortem the pericardium was found to be attached by old adhesions to an irregular mass, due to a very considerable enlargement of the aorta, which took a course to the right and in front of the right auricle. The aorta was completely altered by atheromatous disease, and the sac of the aneurism was formed by great thickening of the tunica adventitia. The valves were for the most part healthy, and the heart was neither markedly dilated nor hypertrophied.

Dr. Dowse exhibited another specimen of Aneurism of the Arch of the Aorta, which caused the patient's death by rupture into the pericardium. It was removed from a woman aged thirty-one, who was admitted into the Central London Sick Asylum at Highgate on May 5, and died on the following day. During life a pulsating tumour, the size of an orange, was seen occupying the right half of the manubrium. The clinical features of the case were wanting on account of the patient's sudden death. Post-mortem a large aneurism was found, which involved the ascending and transverse portions of the arch of the aorta. It was essentially sacciform in outline, and free from any fibrinous deposit in its true cavity. At what might be considered the upper wall of the arch a false aneurism commenced, extending superiorly to the top of the sternum and for a considerable distance on either side. In this portion, formed by the outer coat of the artery, was a large mass of laminated fibrine about the size of a cricket-ball, flattened from before backwards. This blood-tumour was not adherent to the sac except at its upper part, so that the blood must have circulated freely around it.

Mr. Butlin said that he was acquainted with part of the life-history of the second case. The woman had been in St. Bartholomew's Hospital for three months, under the care of Mr. Callender, who treated her by Tufnell's method, eight ounces of solid food and ten ounces of fluids being allowed per diem. The treatment was well borne. For the first month there was no evident effect, but during the last two months the aneurismal tumour became less and harder. The patient suddenly left the hospital without previous warning, and nothing had been heard of her until that evening.

In reply to the President, Dr. Dowse said that the patient had left St. Bartholomew's Hospital only a short time before her death. The presence of the laminated fibrine in the upper part of the sac seemed very interesting.

Dr. Douglas Powell referred to the absence of enlargement of the heart in the first case. He had himself found the heart not enlarged in some cases of aortic aneurism. This experience did not agree with descriptions in books, neither was it quite what might be expected mechanically.

Mr. Myers could not recall a single case of aortic aneurism in soldiers without hypertrophy of the heart. In regard to the first case, he inquired whether the diastolic bruit was very slight. He had generally found the aortic orifice dilated when the aneurism was near the heart, and the diastolic bruit very marked.

Dr. Dowse replied that he was surprised to hear of hypertrophy of the left ventricle invariably accompanying aortic aneurism. As a rule, he had seen but little hypertrophy. He believed the hypertrophy was in inverse relation to the amount of dilatation of the aneurism itself.

The President said that his own experience was that the amount of hypertrophy depended more upon the condition of the arterial system generally than upon the condition of the aneurism itself.

### Rupture of the Trachea.

Mr. Godlee exhibited a specimen of a rare form of injury —viz., Rupture of Trachea, produced by the wheel of a cart passing over the chest of a boy seven years old, and fracturing the third, fourth, and fifth ribs on the right side at their greatest convexity. There was no injury to the left side of the chest beyond slight bruising; but the surfaces of the right pleura were adherent throughout by old adhesions, and behind the root of the lung was a large cavity communicating directly with the trachea. The actual injury was a split of the trachea, front and back, immediately above the bifurcation, and was probably caused by the adherence of the lung to the chest-walls. Partly as the result of the fractured ribs, and partly from its natural elasticity, the side of the chest would be much flattened, and the lung consequently dragged forcibly from the middle line. The child died immediately after admission, and no observations as to symptoms or physical signs were made; no emphysema was found post-mortem; none of the large vessels were injured.

Mr. Howard Marsh related the case of a child lately admitted into St. Bartholomew's Hospital with severe dyspnœa and collapse after injury to the chest. The pleural cavity was distended with air, and puncture gave so much relief that the child lived several days. Post-mortem the left bronchus was found completely torn across.

Dr. Southey confirmed the account just given by Mr. Marsh; there was also extensive emphysema; and the pulse in the left radial artery was not perceptible. In reply to Mr. Godlee, Dr. Southey added that there were no old adhesions of the lungs; there was fresh empyema, and the lung was gangrenous.

### Cystic Tumour of the Pelvis.

Mr. K. Thornton showed a large Cystic Tumour with the ovary attached, removed by operation from a woman of twenty-five, who had been married five years and a half. The physical signs in some respects pointed to multilocular cyst. On examination after removal it was found that the tumour was a unilateral cyst with parietal projections or imperfect septa: probably this furnished the explanation of the peculiar fluctuation signs before removal. The tumour was situated between the layers of the broad ligament. The ovary was somewhat enlarged; it was found to contain many vesicles, and some of these lay so near the broad ligament that escape might have occurred between its folds and led to the growth of a tumour.

### Calculi from the Female Bladder.

Mr. Christopher Heath exhibited three calculi from the bladders of as many women. All were large, and all had been removed by vaginal incision. The first calculus weighed nearly one ounce; it possessed three distinct nuclei. The whole was composed of phosphates. A pouch could be felt with the finger in the wall of the bladder; and it was probable that the three nuclei had all been formed in it. The second specimen weighed one ounce and a half. It was removed with ease. The third specimen was so soft externally that it broke down on being grasped, and had been removed with difficulty. In respect of the operation, all the cases did well, except that in one case a fistula remained. The important point was to make a free incision, even up nearly to the cervix uteri, rather than bruise the edges. The vagina had to be dilated, and the operation was therefore inapplicable in young patients.

## MEDICAL NEWS.

University of London.—The following are lists of the candidates who have passed the recent Examinations:—

M.D. Examination.

Addy, Boughton, St. Thomas's Hospital; Barfoot, George Harry, University College; Barlow, Thomas, B.S., B.Sc., University College; Bomford, Gerald, King's College; Cockburn, John Alexander (Gold Medal), King's College; Colgate, Henry, B.S., University College; Coupland, Sidney, University College and Middlesex Hospital; Dyson, William, B.A., University College; Gibbings, Alfred Thomas, King's College; Greenfield, William Smith, B.S.,(a) University College and St. Thomas's Hospital; Harris, James Alfred, University of Edinburgh; Mackey, Edward, Queen's College, Birmingham; Skerritt, Edward Markham, B.S., B.A.,(a) University College; Vachell, Charles Tanfield, King's College.

Logic and Moral Philosophy only.

Buck, Thomas Alpheus, Guy's Hospital; Dukes, Clement, B.S., St. Thomas's Hospital; Perkins, Charles Edward Steele, Guy's Hospital; Yeo, Isaac Burney, King's College.

B.S. Examination.

*First Division.*—Duncan, Peter Thomas, University College; Gould, Alfred Pearce, University College.

*Second Division.*—Crocker, Henry Radcliffe, University College; Houghton, Walter Benoni, University College; Pope, Harry Campbell, Liverpool Royal Infirmary and University College.

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Royal College of Surgeons of England.—The following Members of the College having undergone the necessary examinations for the Fellowship at meetings of the Court of Examiners on the 26th, 27th, and 28th ult., were reported to have acquitted themselves to the satisfaction of the Court, and, at a meeting of the Council on the 10th inst., were admitted Fellows of the College, viz.:—

Hartridge, Gustavus, L.R.C.P. Lond. and L.S.A., Staplehurst, diploma of Membership dated July 22, 1872, of King's College.

Jessett, Frederic Bowreman, L.S.A., Erith, Kent, December 20, 1858, of University College.

Stirling, Edward Charles, M.A. and M.B. Cantab., Queen's-gardens, Hyde-park, July 23, 1872, of St. George's Hospital.

(a) Obtained the number of marks qualifying for the Medal.

McGill, Arthur Fergusson, L.S.A., Park-square, Leeds, Diploma of Membership dated November 18, 1868, of King's College.

Six candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months. At the same meeting of the Council the following gentlemen were admitted Fellows of the College by election, viz:—

Figgins, Henry, L.S.A., Sharrow, Sheffield, diploma of Membership dated April 27, 1840.

Starling, Thomas John, L.S.A., Higham Ferrers, Northamptonshire, July 19, 1841.

Waite, Charles Derby, M.B. Cantab. and M.R.C.P. Lond., Old Burlington-street, October 2, 1829.

## APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Clarkson, J. W., L.R.C.P., M.R.C.S.—House-Surgeon to St. Thomas's Hospital.

Edmundson, Joseph, M.D., L.K.Q.C.P., M.R.C.S. Eng., L.M.—Superintendent of the Lunatic Asylum, Enniscorthy.

Gill, H. C., M.R.C.S.—Medical Superintendent at the York Lunatic Hospital, Bootham.

Mackenzie, George Hunter, M.B., C.M., L.M. Edin.—Assistant-Surgeon to the Gateshead Dispensary.

Priestley, William Stanton, M.R.C.S.—Medical Officer and Public Vaccinator for the St. Faith's District and the Union House, Norwich, *vice* R. Thompson, M.R.C.S. Eng., L.S.A.

Purdon, Edward, L.R.C.P. Edin., L.F.P.S. Glasg.—Assistant Medical Officer at the North Riding Asylum, Clifton, York, *vice* H. C. Gill, M.R.C.S.

Rossiter, G. F., M.R.C.S., L,S.A.—House-Surgeon to St. Thomas's Hospital.

## BIRTHS.

Airy.—On December 4, at Edensor, Kidbrooke-grove, Blackheath, the wife of Hubert Airy, M.D., of a daughter.

Blenkinsop.—On December 1, at Bournemouth, the wife of W. H. Blenkinsop, M.D., of a daughter.

Hibberd.—On December 5, at 5, Westbourne-place, Harrow-road, W., the wife of Edward Hibberd, M.D., of a daughter.

Masterman.—On December 5, at Burnham, Bucks, the wife of G. F. Masterman, M.R.C.S. Eng., L.S.A., of a son.

Maxwell.—On November 5, at Lahore, N. India, the wife of Theodore Maxwell, M.B., F.R.C.S., medical missionary, of a son.

Tanner.—On December 5, at Alfred House, Newington-causeway, S.E., the wife of John Tanner, M.D., of a daughter.

Walker.—On December 6, at 20, King Edward's-road, Hackney, the wife of William Newman Walker, jun., M.R.C.S., of a daughter.

White.—On November 27, at Bournemouth, the wife of Gregory White, M.D., of a daughter.

## MARRIAGES.

Brown—Hughes.—On December 3, at Kingskerswell, South Devon, Anthony Lemon Brown, Surgeon Army Medical Staff, to Jane Maria (Jeanie), youngest daughter of the late John Hughes, Esq., J.P. and D.L. for the county of Cardigan.

Flower—Lush.—On December 3, at Fyfield Church, near Andover, Hants, Frederic J. Flower, M.R.C.S. Eng., L.S.A., Broad Chalke, Salisbury, to Eva Henrietta, third daughter of William Lush, Esq., of Fyfield House, Andover, and formerly of Damerham, Wilts.

Houghton—Barker.—On December 3, at Rostrevor, Ireland, Henry, only son of J. H. N. Houghton, Esq., of Ashley Lodge, St. John's, Ryde, to Margaret Anna, eldest daughter of the late Wm. Barker, M.D., of Hatch-street, Dublin.

Johnson—Smith.—On November 12, at St. Thomas's Cathedral, Bombay, William Edward Johnson, M.D., Surgeon Madras Army, eldest son of the late John Johnson, Esq., of Ballough and Knockacomsey, Ireland, and nephew of the late Sir Edward Johnson, R.C.S., of Weymouth, to Elizabeth Jane, second daughter of the Rev. S. I. Smith, of Newcastle, County Down.

Macdonald—Thomson.—On August 22, at St. Luke's Church, Christchurch, New Zealand, Augustus, son of the late Captain J. M. Macdonald, to Elizabeth, widow of Leslie Thomson, Esq., and daughter of the late J. R. Moore, M.D.

Macpherson—Maclean.—On December 2, at All Saints Church, Southampton, John Macpherson, Esq., of the Inner Temple, and of the High Court, Bombay, eldest son of the late Rev. Robert Macpherson, M.A., to Emily Christian Malcolm, eldest daughter of W. Campbell Maclean, C.B., M.D., Surgeon-General and Professor of Military Medicine, Army Medical School, Netley.

Venour—Morris.—On November 28, at Cadoxton-juxta-Barry, Glamorganshire, Surgeon Venour, Army Medical Department, to Julia Rose, daughter of the late Rev. Even Morris, vicar of Llanelly, Carmarthenshire.

## DEATHS.

Culhane, Albert Daniel, twin son of the late Daniel Culhane, M.D., lost on board the steamship *La Plata* on November 29, in his 20th year.

Davies, Mary Sophia, widow of the late John Phillips Davies, M.R.C.S., and fourth daughter of Charles White Williams, Esq., of Duckworth and Dacresfield Estates, Jamaica, at 75, Regina-road, Tollington-park, Holloway, N., on December 6.

Freshfield, Philip William, M.R.C.S. Eng., L.S.A., of Harwich, at The Crescent, London-road, Ipswich, after a long and painful illness, on December 4, in his 50th year.

Gillett, William, L.R.C.P. Edin., L.M., L.S.A., at 77, Vauxhill-bridge-road, S.W., on December 3, aged 49.

Kelsall, Henry, M.D., F.R.C.S., late Royal Navy, at his residence, Linkfield-lane, Redhill, on December 3, in his 73rd year.

Matthew, Alexander Crombie, M.R.C.S. Eng., at 39, Albyn-place, Aberdeen, suddenly, on December 3.

Sandberg, Sophia Blanche, beloved wife of the Rev. George Alfred Sandberg, M.A., vicar of Hannah-cum-Hagnalshy-with-Markby, Lincolnshire, at the residence of her father, C. Lingen, M.D., F.R.C.S., Hertford, on December 4, aged 25.

Truman, Susanna Mary, beloved wife of Beckit Truman, M.R.C.S. Eng., L.S.A., at 3, Arboretum-street, Nottingham, on December 7, aged 67.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

District Infirmary, Ashton-under-Lyne.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, on or before December 14.

Evelina Hospital for Sick Children, Southwark-bridge-road, S.E.—Physician. Candidates must be F. or M.R.C.P., or must undertake to become so within six months. Applications, with testimonials, to Committee of Management, at the Hospital, on or before January 1, 1875.

Evelina Hospital for Sick Children, Southwark-bridge-road, S.E.—Medical Registrar and Chloroformist. Candidates must possess a recognised qualification. Applications, with testimonials, to the Committee of Management, on or before December 18.

Faringdon Union.—Medical Officer and Public Vaccinator for the Shrivenham District of the Union. Candidates must be duly qualified. Applications, with testimonials, to the Clerk to the Guardians, before December 15.

Gloucester Infirmary.—Surgeon and Assistant-Surgeon. Candidates for these appointments must be F. or M.R.C.S. Applications, with testimonials, to the Secretary, on or before December 31.

Hants County Lunatic Asylum.—Junior Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Manley, the Medical Superintendent of the Asylum, on or before December 22.

Male Lock Hospital, 91, Dean-street, Soho-square, W.—House-Surgeon. Applications, with testimonials, to the Secretary, on or before December 17.

North-Eastern Hospital for Children, Hackney-road, E.—House-Surgeon. Candidates must possess a double qualification. Applications, with testimonials, to the Secretary.

Nottingham General Hospital.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before December 16.

Royal Infirmary for Children and Women, Waterloo-bridge-road, S.E.—Resident Medical Officer. Candidates must be M.R.C.S. and L.S.A. Applications, with testimonials, to the Secretary, on or before December 21.

Sheffield Public Hospital and Dispensary.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, Dr. John C. Hall, at the Hospital.

Surrey Dispensary, Great Dover-street, Southwark.—Additional Surgeon. For information apply to Mr. R. G. Minshull Jones, Secretary, 190, Tooley-street, S.E.

Trinity College, Dublin.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

West Riding Asylum, Wakefield.—Clinical Assistant. Applications, with testimonials, to Dr. Crichton Browne, Medical Director, at the Asylum, on or before December 23.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Basford Union.*—The Greasley District is vacant; area 11,367; population 11,067; salary £40 per annum.

*Blything Union.*—Mr. H. J. Horton has resigned the Seventh District; area 11,089; population 2556; salary £43 per annum.

*Faringdon Union.*—Dr. Wollaston has resigned the Shrivenham District; area 14,714; population 2721; salary £70 per annum.

*Lichfield Union.*—Dr. Augustus Newman has reigned the Alrewas District; area 12,811; population 2647; salary £35 per annum.

*Mitford and Launditch Union.*—Mr. Vincent has resigned the Workhouse; salary £45 per annum.

*Risbridge Union.*—The Fourth District is vacant; area 12,020; population 2821; salary £54 10s. per annum.

*Sleaford Union.*—Mr. John H. Bissill has resigned the Sleaford District; area 26,870; population 7734; salary £50 per annum. Also the Workhouse; salary £30 per annum.

### APPOINTMENTS.

*Stratford-on-Avon Union.*—Harry Lupton, L.R.C.P. Lond., M.R.C.S. Eng., to the Alveston District.

*Whitehaven Union.*—David E. Flinn, L.R.C.S. Ire., L.K.& Q.C.P. Ire., to the Lamplugh District.

We are glad to find that no demonstration was made at the reopening, on the 2nd inst., of M. Chauffard's lectures at the School of Medicine, Paris.

An inquiry into the alleged default of the Darwen Local Board in not providing the town with sewers has been determined upon by the Local Government Board.

At a meeting of the Royal Medical Society of Edinburgh, the following gentlemen were elected annual presidents:—R. Saundby, M.B.; W. Garton, M.R.C.S. Eng., L.S.A.; M. R. Simpson; R. A. Gibbons, M.B., C.M., M.R.C.S. Eng.

Women Doctors.—Fourteen women medical students have just completed their course of study under the direction of the Women's Committee of St. Petersburg, and will be passed in the present month after their full term of three years.

A Chinese cure for ague, related by Dr. John Dudgeon in the Report of the Peking Hospital for 1873, is the following:—Take a pitch-plaster, place a Spanish fly in the centre, either whole or reduced to powder, and apply it between the eyebrows or on the nape of the neck.

Removal of the Entire Larynx.—Prof. Billroth recently performed his second operation before a large concourse of practitioners and pupils. The patient was a man in his fiftieth year, of reduced appearance, who some weeks before had entered Dr. Schrotter's laryngoscopical ward. On examination he was found to be suffering from epithelial cancer of the cordæ vocales. As the disease was making rapid progress, and no infiltration of the neighbouring glands had yet taken place, Prof. Billroth removed the entire larynx. The patient died a few days afterwards from what seemed to be hypostatic pneumonia.—*Wien. Med. Zeit.*, November 17.

In speaking of hydrophobia, there is one mode of treatment recommended as an infallible remedy in addition to the various remedial measures mentioned in a former report. The patient must eat the body (the head is to be thrown away) of a Spanish fly, and the greatest quietness must at the same time be observed. The patient must on no account hear any noise—such as that of a bell, gong, drum, or such like,—else the recovery is impossible. After the administration of the cantharis, several masses like blood-clots may be observed to pass from the urethra, supposed by some to be the poison of the rabid animal passing out of the system, by others to be small dogs formed in the system by the poison.—*Dr. John Dudgeon, in the Report of the Peking Hospital for* 1873.

Composition and Quality of the Metropolitan Waters in November, 1874.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

| Names of Water Companies. | Total Solid Matter per Gallon. | Oxygen required by Organic Matter, &c. | Nitrogen. | | Hardness. | |
|---|---|---|---|---|---|---|
| | | | As Nitrates &c. | As Ammonia. | Before Boiling. | After Boiling. |
| *Thames Water Companies.* | Grains. | Grains. | Grains. | Grains. | Degs. | Degs. |
| Grand Junction | ... | ... | ... | ... | ... | ... |
| West Middlesex | 17·23 | 0·029 | 0·115 | 0·002 | 13·6 | 3·3 |
| Southwark & Vauxhall | 19·40 | 0·061 | 0·118 | 0·002 | 14·8 | 4·1 |
| Chelsea | 19·37 | 0·049 | 0·115 | 0·001 | 14·8 | 4·0 |
| Lambeth | 19·63 | 0·043 | 0·131 | 0·000 | 14·9 | 4·2 |
| *Other Companies.* | | | | | | |
| Kent | 27·64 | 0·003 | 0·231 | 0·000 | 21·0 | 6·0 |
| New River | 19·79 | 0·023 | 0·117 | 0·000 | 14·7 | 4·0 |
| East London | 20·17 | 0·036 | 0·129 | 0·002 | 15·2 | 3·8 |

*Note.*—The amount of oxygen required to oxidise the organic matters nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was very slightly turbid—namely, in those of the Lambeth, and the Southwark and Vauxhall Companies.

The returns of the Grand Junction Company have not been received.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 116,336,586 gallons; and the number of houses supplied was 513,520. This is at the rate of 34·2 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 25·8 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*Oxford-terrace.*—The man is a well-known quack; his advertisements under an assumed name have been before the College. The Medical Council may perhaps take action in the matter.

*H. P., St. Bartholomew's.*—No more primary or pass examinations at the College until the middle of January.

*G. G.*—Alexander Monro, sen., the author of the "Osteology," first published in 1726, was the founder of the Medical School of Edinburgh.

*P. S. F., Sussex.*—"De Re Anatomica," by Realdus Columbus, was published at Venice in 1559.

*Extract.*— "Work on, my medicine, work!
Thus credulous fools are caught."—*Othello.*

*Claude.*—Harvey's Lumleian Lectures on Anatomy and Surgery were delivered before the College of Physicians in 1615.

*L.R.C.P. Lond.*—The subject of the Conjoint Scheme was discussed at a special meeting of the Council on Monday last. Sir James Paget's motion—"That immediate steps be taken for obtaining an Act of Parliament for the removal of any legal difficulties hindering the College from joining the Conjoint Examining Board for England"—was withdrawn. Mr. Lee's motion fell to the ground, wanting a seconder.

*Dr. Mitchell.*—Your version is not quite correct. It came to this country in a letter from Dickens, then giving his readings in the United States. He says—"As a relief to my late dismal letters, I send you the newest American story. Backwoods Doctor is called in to the little boy of a woman settler. Stares at the child some time through a pair of spectacles; ultimately takes them off, and says to the mother: 'Wa'al, marm, this is small-pox. 'Tis, marm, small-pox; but I am not posted up in pustuls, and I do not know as I could bring him along slick through it. But I'll tell you wa'at I can do, marm—I can send him a draught as will certain-ly put him into a most etarnal fit, and I am almighty smart at fits, and we might git round Old Grisly that way.'"

*Librarian.*—The first number of the *Medical Times* appeared on September 28, 1839. The founder of it was Mr. Frederick Knight Hunt, M.R.C.S., who at the time of his death was chief editor of the *Daily News*. One of the gentlemen associated with him in its establishment is still on our staff. The late Dr. Jordan Roche Lynch wrote under the *nom de plume* of "Probe." The "Confessions of a Dissecting-room Porter," signed "Rocket," were by a then almost unknown writer—viz., Albert Smith, M.R.C.S. Eng.

*M.D., Devonport.*—The case is curious, but *not* unprecedented, as the late Sir Henry Marsh, in his essay "On the Evolution of Light in the Human Subject," published in the *Dublin Journal*, vol. xxii., p. 133 *et seq.*, records two cases occurring in his own practice, and in both the luminous appearances about the head were observed just before dissolution. In one case Sir Henry observed that "her breath had a very peculiar smell, which made me suppose that there might be some decomposition going forward." The late Mr. Edwin Quekett communicated a similar case to this journal as occurring in his practice.

*Theodore.*—
"Man's generations come and go as come and go the leaves;
This year's, of life, wind-strewn on ground, the winter's cold bereaves;
But spring brings forth the green again to crown another year;
And so men too alternately grow up and disappear."

*Adam G.*— "Go to!
You are a subtle nation, you physicians,
And grown the only cabinets in Court."—*Ben Jonson.*

*Tinc. Humuli, Maidstone.*—The celebrated Charles Dickens, in writing to his friend Foster, says:—"I have been amazed by the number of miserable lean wretches, hardly able to crawl, who go hop-picking. I find it is a superstition that the dust of the newly-picked hop, falling freshly into the throat, is a cure for consumption. So the poor creatures drag themselves along the roads, and sleep under wet hedges, and get cured soon and finally."

*Antiquary.*—About the twelfth century the Parisians used to go to study medicine at Salerno and Montpellier. By the beginning of the thirteenth century, however, a school of medicine was established at Paris, which soon became very celebrated. There were, of course, at an earlier date persons who practised the medical art in that city. The physicians in all the countries in Europe at this period were generally churchmen. Many of the Arabic medical works were early translated into Latin, but the Parisian professors soon began to publish treatises of their own. The science of the physicians of this age, besides comprehending whatever was to be learned respecting the diagnostics and treatment of diseases from Hippocrates, Galen, and the other ancient writers, embraced a considerable body of botanical and chemical knowledge. Chemistry, in particular, the Arabs had carried far beyond the point at which it had been left by the ancients. Of anatomy little could as yet be accurately known while the dissection of the human subject was not practised; yet it would appear that physicians and surgeons were already beginning to be distinguished from each other.

### Australian Wines.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Allow me to inform your readers through your columns that, by the authority of the Agent-General for South Australia, the wines of that colony remaining over from this year's exhibition have been removed to the London depôt of the Australian Vineyards Association, 50, Old Broad-street, E.C., where they may be tasted free of charge on and after Monday next until Thursday, the 24th inst.

I am, &c., P. B. Burgoyne, Commissioner.

*Jasper Buddle.*—The works of Lanfranc were printed in 1490. He was the first writer to lay down the rule for distinguishing the wound of an artery from that of a vein.

COMMUNICATIONS have been received from—

Mr. J. P. Stallard, Rassall; Mr. P. B. Burgoyne, London; Mr. T. Annandale, Edinburgh; Sir Alexander Grant, Bart., Edinburgh; Dr. E. Haughton, Upper Norwood; The Registrar of the University of London; Messrs. Dordron and Co., London; M.D.; Mr. J. Gorham, Tunbridge; Dr. L. Kidd, Oudh; Mr. W. A. Cower, London; Sir Henry Thompson, London; Dr. J. W. Moore, Dublin; Dr. Boggs, Paris; Dr. W. J. H. Lush, Fyfield; The Secretary of the Statistical Society; The Registrar General, Edinburgh; Mr. T. M. Stone, London; Messrs. Baghott Watts and Danford Thomas, London; Dr. Ralfe, London; Professor Humphry, Cambridge; Mr. A. R. Turnbull, Edinburgh; Our Liverpool Correspondent; Mr. G. T. Rossiter, London; Messrs. Van Baalen and Zonen, Rotterdam; Mr. R. Henderson, Enniscorthy; Mr. J. Jordan, Newcastle-on-Tyne; Dr. C. T. Williams, London; Mr. H. Saunders, London; Dr. T. H. Green, London; Dr. T. Cole, Bath; Dr. G. W. Balfour, Edinburgh; Dr. Lawson, Wakefield; Mr. J. Chatto, London; Mr. G. Masterman, Burnham; Mr. B. Vincent, London; Dr. Sheen, Cardiff; Dr. H. Lethieby, London; Mr. P. Le Neve Foster, London; Dr. E. Williams, Drouwy; Mr. S. Whitaker, Derby.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—L'Archives Générales de Médecine—Practitioner—Leisure Hour—Sunday at Home—Cassell's History of the United States of America, part 1—Cassell's Family Magazine—O Correio Medico de Lisboa—Philadelphia Medical Times—New York Druggist—Melbourne Argus.

BOOKS AND PAMPHLETS RECEIVED—

St. Bartholomew's Hospital Reports, vol. x.—Buchanan on the Blood—Taaffe's Sanitary Report of the Health of Brighton—Report of the Public Analyst to the Town Council of Portsmouth—Galton on English Men of Science—Traité de Thérapeutique Médicale, par le Dr. A. Ferrand—Report on the Health of the Navy for 1873.

## APPOINTMENTS FOR THE WEEK.

*December* 12. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 3½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

14. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic 1½ p.m.

Medical Society of London, 8 p.m. Mr. Spencer Watson, "An Astragalus and Portion of the Os Calcis Removed by Primary Excision for Compound Dislocation of the Astragalus and Compound Comminuted Fracture of the Os Calcis." Mr. William Rose, "A Case of Cleft Palate" (patient shown). Mr. W. F. Teevan, "A Review of the Modern Methods of Treating Stricture."

15. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8 p.m. Dr. Dickinson—Obscure Abdominal Tumour. Mr. Lawson—Sarcoma of the Sclerotic. Mr. J. Hutchinson—1. Cancer of the Tongue, showing two quite separate growths; 2. Intussusception of the Ileum into the Colon in a Dog. Dr. Southey—Aneurism of the Heart. Dr. Wickham Legg—1. Aneurism of the Left Ventricle; 2. Aneurism of the Mitral Valve. Dr. Dowse—Cancer of the Abdominal Viscera. Mr. Wagstaffe—Papilloma of the Tongue (two cases).

Statistical Society, 7¾ p.m. Mr. N. A. Humphreys, "On the Value of Death-Rates as a Test of Sanitary Condition."

16. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

17. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

18. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Medical Microscopical Society, 8 p.m. Nomination of Officers, &c.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, December 5.*

### BIRTHS.

Births of Boys, 1274; Girls, 1117; Total, 2391.
Average of 10 corresponding years 1864-73, 2133·6.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 1044 | 1078 | 2122 |
| Average of the ten years 1864-73 | 772·7 | 778·4 | 1551·1 |
| Average corrected to increased population | ... | ... | 1706 |
| Deaths of people aged 80 and upwards | ... | ... | 110 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 2 | 8 | 4 | 9 | 1 | 4 | 2 | 4 |
| North ... ... | 751729 | ... | ... | 24 | 1 | 9 | 5 | 3 | 2 | 2 |
| Central ... | 334369 | ... | ... | 10 | 2 | 3 | 1 | 4 | 1 | 2 |
| East ... ... | 639111 | ... | 4 | 32 | ... | 11 | 2 | 4 | 3 | 1 |
| South ... ... | 967692 | ... | 12 | 18 | 7 | 16 | 1 | 9 | 5 | 1 |
| Total ... ... | 3254260 | ... | 18 | 92 | 14 | 48 | 10 | 24 | 13 | 10 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·403 in. |
| Mean temperature | 38·6° |
| Highest point of thermometer | 50·9° |
| Lowest point of thermometer | 23·0° |
| Mean dew-point temperature | 34·9° |
| General direction of wind | W.S.W. & N.N.E. |
| Whole amount of rain in the week | 1·49 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 5, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Dec. 5. | Deaths Registered during the week ending Dec. 5. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2391 | 2122 | 50·9 | 23·0 | 38·6 | 3·66 | 1·49 | 3·78 |
| Portsmouth ... | 120436 | 26·8 | 67 | 55 | ... | 22·4 | ... | ... | 2·32 | 5·89 |
| Norwich ... ... | 82257 | 11·0 | 46 | 47 | 50·0 | 21·5 | 36·8 | 2·66 | 1·11 | 2·82 |
| Bristol ... ... | 192389 | 43·3 | 174 | 85 | 51·8 | 24·3 | 39·0 | 3·89 | 1·26 | 3·20 |
| Wolverhampton ... | 70896 | 20·9 | 58 | 64 | 48·7 | 23·7 | 36·0 | 2·22 | 0·51 | 1·30 |
| Birmingham ... | 360892 | 43·0 | 304 | 200 | 50·5 | 25·6 | 37·8 | 3·22 | 1·39 | 3·53 |
| Leicester ... ... | 106202 | 33·2 | 111 | 56 | 50·0 | 21·0 | 36·3 | 2·39 | 0·49 | 1·24 |
| Nottingham ... | 90894 | 45·5 | 56 | 56 | 48·2 | 20·0 | 35·0 | 1·67 | 0·84 | 2·13 |
| Liverpool ... ... | 510640 | 98·0 | 384 | 400 | 51·9 | 31·0 | 40·8 | 4·88 | 0·84 | 2·13 |
| Manchester ... | 355339 | 82·8 | 292 | 227 | 49·0 | 21·0 | 36·1 | 2·28 | 1·21 | 3·07 |
| Salford ... ... | 133068 | 25·7 | 108 | 85 | 49·5 | 20·0 | 36·5 | 2·50 | 1·15 | 2·92 |
| Oldham ... ... | 86281 | 18·5 | 75 | 60 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 120 | 105 | 48·8 | 25·6 | 36·7 | 2·61 | 1·78 | 4·52 |
| Leeds ... ... | 278798 | 12·9 | 314 | 146 | 48·0 | 26·0 | 37·4 | 3·00 | 1·48 | 3·76 |
| Sheffield ... ... | 261029 | 13·3 | 252 | 189 | 49·5 | 26·7 | 38·1 | 3·39 | 0·95 | 2·41 |
| Hull ... ... ... | 130996 | 36·0 | 104 | 87 | 48·0 | 20·0 | 34·5 | 1·39 | 1·12 | 2·84 |
| Sunderland ... | 104378 | 31·6 | 86 | 62 | 49·0 | 25·0 | 39·5 | 4·17 | 2·02 | 5·13 |
| Newcastle-on-Tyne | 135437 | 25·2 | 107 | 84 | 47·0 | 25·0 | 34·9 | 1·61 | 0·75 | 1·90 |
| Edinburgh ... ... | 211691 | 47·8 | 121 | 104 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 393 | 376 | 48·0 | 27·2 | 37·6 | 3·11 | 1·53 | 3·89 |
| Dublin ... ... | 314666 | 31·3 | 173 | 155 | 50·1 | 26·0 | 38·7 | 3·72 | 1·05 | 2·67 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5733 | 4768 | 51·9 | 20·0 | 37·2 | 2·39 | 1·23 | 3·12 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·40 in. The lowest was 28·47 in. at 10 a.m. on Sunday, the 29th ult., and the highest 29·99 in. on Thursday evening

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## NOTES OF A LECTURE DELIVERED AT GRESHAM COLLEGE.

By E. SYMES THOMPSON, M.D., F.R.C.P.,
Physician to the Hospital for Consumption, etc., Brompton.

The course of lectures delivered in Michaelmas term by the Gresham Professor of Physic was on "The Ear in Health and in Disease." The first lecture was devoted mainly to the description and consideration of the structure and functions of the ear in man and in the lower animals. The second consisted chiefly of a survey of the physical phenomena of sound, and was illustrated by numerous experiments. The third lecture was of a very practical kind, commencing with rules for the preservation of the organ of hearing; and various aids to the diagnosis of ear diseases were described, with simple hints as to treatment. But the latter part of the lecture was devoted to the consideration of the best modes of educating those who have lost the sense of hearing; and of this especially interesting and instructive portion the following is a full *résumé*:—

When a child is born deaf, or loses the sense of hearing before he has learned to speak, he grows up without the knowledge how to use, though not without, the faculty of speech. He is dumb, not because his speaking organs are defective; but because, being deaf, he hears nothing to copy or to imitate. He may make noises, but they are most inharmonious, and he is therefore discouraged from doing so. A moment's thought will enable us to judge how difficult it must be to teach the deaf and dumb to speak; yet this is the work that ought to be accomplished in every case, except where there is defective development of mind (idiotcy) or of the organs of speech.

Various plans have been formed for the education of the deaf. The so-called "German system" employs articulate speech and reading from the movements of the lips. At the commencement of the training a few natural gestures are used, and pictures have a prominent place among the aids to instruction.

The so-called "French system" employs an artificial finger-alphabet and a recognised code of signs or gestures, but makes no attempt to give articulate speech.

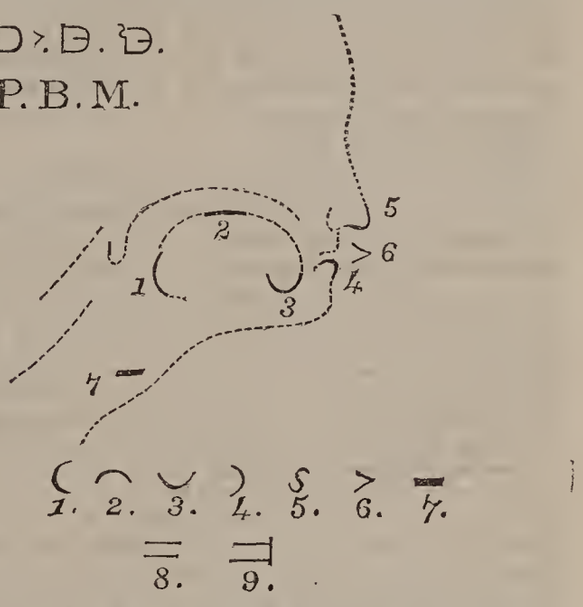
The "Old English," now called the "Combined system," employs speech and lip-reading, as well as finger-talking, and signs of all kinds, natural and artificial.

The results of this last system, as regards speech and lip reading, are unsatisfactory, and the English public, unacquainted with the true German system of teaching by *speech only*, have hitherto thought it would likewise prove a failure. The fact is, under the Combined system the pupil's attention is divided between watching the lips and the fingers, and he thus fails to gain that aptitude in reading the former which may be acquired when the undivided attention is given to the movements of the organs of speech. A fair trial of the German system will prove that it is really the best of the three, and places the deaf on a more equal footing with those who hear; enabling them to engage with greater ease and success in the occupations and interests of life.

A great addition to the German system has, however, been made by introducing a phonetic character—"visible speech," as it is called—by means of which a more accurate pronunciation is acquired than can be obtained by imitation only. This character makes the manner of producing every sound visible to the eye of the pupil. Many sounds depend upon the adjustment of the organs that are quite concealed from observation. By means of these physiological symbols we reveal to the deaf-mute's eye the concealed mechanism of speech. Though the sounds of speech may be *infinite* in variety, they are all formed by a limited number of organs, and they can all be represented by means of the combinations of twelve elementary symbols. The name of a sound-symbol is in reality a command *to do something with the mouth*. All one can say concerning the Roman letters is that P is P, B is B., etc. But the symbols tell us that P is formed by shutting the lips and then making a puff of air; while for B the lips are shut while the voice is sounded, etc. So simple is this system, that not only deaf, but even imbecile children have been taught by it; and in curing defects of speech, such as stammering and stuttering, it has proved very successful.

In 1864, Professor A. Melville Bell, a Scotchman, invented this system of phonetic characters, and entitled it "visible speech." He offered it to the British Government for scientific purposes, but, his conditions being refused, he published it in 1867. The following year, 1868, the first attempt was made to communicate a knowledge of the symbols to the deaf and dumb in a private establishment at Kensington,(a) and with such success that the system has been continued ever since. Though in England it is as yet employed in this school only, it has been adopted by not less than nine American institutions. Transplanted to the United States in 1871, it received the sanction of that Government. A school newly established at Boston, Massachusetts, was submitted to Mr. A. Graham Bell, son of the inventor, for the express purpose of proving the system still further.(b) Here, again, so great was its success, that in 1872 it was adopted in the established institutions at Northampton, Hartford, and elsewhere. Reports from these institutions state that not only have the deaf and dumb been taught to speak much more accurately, but in the matter of tone, compass, modulation, and inflection of the voice, results have been secured not previously attained at all.

To explain the symbols to a deaf child, the outline of a face turned towards the right is drawn upon the slate (see illustration), and a representation of the inside of the mouth is added. The pupil's attention is directed to the various parts of the diagram, and he shows his appreciation by touching the corresponding portions of his own face or mouth. When the teacher points to the arrow-head, a motion of the hand is made to suggest that it means "air coming out of the mouth."




Those portions of the face represented in the illustration by dotted lines are then rubbed off the slate, and attention is directed to the broken remains of the diagram. When the teacher points to the fragmentary nose, lip, or tongue, etc., the pupil touches his own nose, lip, or tongue. It will presently be observed that these disjointed portions of the diagram are the *visible speech-symbols for the corresponding parts of the mouth.*

The symbol for "lip" is the outline of a lip; that for the point of the tongue, its picture; and so with other parts. The sign for the lip (4) is used for every sound formed by the lips; so with the point of the tongue (3), the top of the tongue (2), and the back of the tongue (1). The sign for the throat (7) represents a mere chink or slit in the throat, and is pictorial of the vocalising condition of the glottis; it therefore means voice.

The sign for the nose (5) is in reality pictorial of the uvula. When the soft palate is depressed the breath passes up behind it and escapes through the nostrils; when it is raised the communication between nose and mouth is cut off. Hence the application of a symbol originally pictorial of the soft palate to the nose. It means "air passing through the nostrils." The symbols (8) and (9) are added to the above to convey the idea of an open (8) or shut (9) position of the organ to

(a) Miss Hull's Institution, 102, Warwick-gardens, Kensington, W. Miss Hull is the daughter of a well-known physician.

(b) Mr. A. Graham Bell has carried out the system as applied to the deaf to a much fuller extent. He has been appointed Professor of Elocution in the Boston University, and an acquaintance with visible speech is now made obligatory on certain of the students.

which they are added. The first of these is intended to convey the idea of a tube; and the second exhibits this tube closed at one end. The first is used to denote a narrow passage in the mouth, through which the breath may pass; and the second, complete closure of this mouth-passage.

The next step is to isolate the symbols so that the deaf pupil shall recognise them independently of their position in the diagram. They are accordingly written in one line below the fragmentary picture (see illustration), and the pupil practised in recognising them. The elementary forms are then built up into more complex shapes, and the pupil is required to sound one of the characters. Take, for example, the character representing M, which is "lip, shut, nose, voice." This is in effect a direction to shut the lips and pass the voice through the nose. In explaining this symbol to a deaf-mute, one of his hands is placed upon the teacher's throat and the other against the nose. If, then, the teacher makes the sound of M, the pupil *sees* that the lips are shut, and *feels* a vibration in the throat and nose. These complex symbols are again grouped into words and sentences, and language is thus obtained.

Without the aid of other diagrams it is impossible to explain the symbols further, but the above will suffice to give some idea of the process of instruction. The symbols of the vowels are equally simple, clear, and explicit, and by their aid an *exact guide* for the position of the organs and their relations to other parts of the mouth is obtained, giving an immense advantage over any other phonetic system, wherein the delicate shades of vowel differences are endeavoured to be conveyed by accents and such-like marks, added to the *same letters*—a plan which, though it succeeds through practice, requires an effort of memory on the part of the pupil not demanded by the symbols. It may almost be said that the vowel-symbols are the crowning advantage of the Visible Speech system, these pure vocal utterances being by far the most difficult to obtain by imitation alone.

Not least among the advantages of this system is the power of retaining and perfecting the speech of those who, having once spoken, are in danger of becoming dumb through the loss of hearing by accident or disease. This class comprises a far greater number than is generally supposed—ignorance of the fact arising from the circumstance of such having hitherto been sent to institutions for the deaf, or kept at home without instruction, till the utterance, becoming less and less distinct, is finally lost altogether, and the child becomes dumb as well as deaf. Again, there are cases of imperfect development of the auditory organs or their partial destruction under the influence of disease—a condition not irremediable, though it demands great care. Constant use of the ear-trumpet combined with vocal instruction by lip-reading and speech have happily achieved the restoration of the enfeebled sense, and given back not only speech, but hearing also. More care and experience are needed to teach a deaf child than a hearing one, but there is no further difference in the capacity of the children for receiving instruction; indeed, the intelligence of the deaf child is often remarkable, and his eagerness to acquire information is ever stimulating both himself and his teacher to fresh efforts. Study is to him no burdensome task, but the opening of the gates of knowledge through which he longs to press forward that he may inherit the fields of thought beyond. The true way to educate a deaf child is, ignoring his deafness, to appeal to his mind as we should to that of any other child, and not to regard him, as has too often been the case, as in much the same position as an idiot who cannot be taught more than a surface-smattering of a few essentials. We are glad to see that the attention of the School Board has lately been drawn to this subject; we hope it is a promise of better things to come. According to the last census there are about 1800 deaf-mutes within the metropolitan area. The report proved that but one in a hundred of these had come under the inspection of the Board—surely far too small a proportion. The system on which these few are being taught is commended, but we doubt whether this commendation is the result of inquiry into the various systems. We consider that it is the duty of those in power to give to this isolated class of beings the very best education possible; to employ the system best calculated to restore them to society and enable them to engage in the various duties of life at less disadvantage than is now possible.

The German system was commenced in Holland by Dr. J. C. Amman in 1692. Heinicke revived the method in 1778; reduced it to a system, and founded a school at Leipzic (under the auspices of the Elector of Saxony). In France deaf children were taught to speak and read the lips in 1746 by Monsieur Péreire. His contemporary, the Abbé de l'Epée, employed signs and finger-talking. In England and Scotland a system of education by speech and lip-reading was introduced by John Bulwer in 1648, Dr. W. Holder 1659, and Dr. Wallis 1670.

The first English asylum founded on what is now called the "Combined system" was opened in the Old Kent-road in 1792, and another in Edinburgh in 1810.

The French system was introduced into America in 1817, and the German system about 1843. The Visible Speech Phonetic system is rapidly gaining ground, and there can be little doubt that as it becomes known in England the same result will follow, although the conservative feeling of the old country renders the introduction of any novelty more difficult than it is in the United States. A proposition has been made by an English gentleman,(c) interested in the deaf and dumb, to establish a training college for teachers on this system. He is anxious to find a gentleman who will study the systems in use in Germany and America, and qualify himself to become principal of the new college. A salary of £300 per annum is guaranteed during the first three years of preparation, after which it is hoped the college will become self-supporting.

## ORIGINAL COMMUNICATIONS.

# STATISTICS OF SCARLATINA,
## WITH REMARKS UPON DIPHTHERIA.

By H. COURTENAY FOX.

### No. II.

In a former paper contributed to the *Medical Times and Gazette* I attempted to give some results of a little arrangement and study of the statistics of scarlatina. I showed, in the first place, that the average annual mortality from this disease in a period of thirteen years (before which time the returns of this disease were blended with those of diphtheria) is at the rate of one to every thousand inhabitants in London, and that it is slightly less for the country at large. Next, we learned from the returns of deaths in different weeks throughout the year that scarlatina is emphatically a disease of the autumn, reaching its height generally in October; but it is interesting to notice that, as far as is known, not a single week for thirty-four years has been without *some* deaths (however few) from this disease in London. Thirdly, reviewing the mortality returns for the metropolis extending over more than thirty years, we found that the "epidemics" of scarlatina have recurred at tolerably regular intervals, averaging five years in duration, and that (as far as our knowledge extends) the later waves of invasion have lasted a much longer time, and have been also more severe in intensity, than the earlier ones.

There remain for present consideration some interesting questions that may be put in the following form:—1. What is the distribution of the mortality from scarlatina according to sex? 2. What is the distribution of the mortality according to age? 3. Is there statistical evidence showing that scarlatina and diphtheria may be related diseases? Do they appear to obey similar laws as regards epidemic prevalence, seasonal character, and the influence of sex and age upon their mortalities? 4. What are the present prospects of the coming epidemic?

1. To ascertain the distribution of the mortality according to sex, we are entirely dependent upon statistics, which relate to large populations and extend over long periods of time—advantages which our limited observation and experience cannot possess. Let us take, first, the case of the metropolis. The average annual mortality from scarlatina is (as before mentioned) 1001 per million of the inhabitants. But if we take one million of males and an equal number of females of all ages, we find that the annual deaths from scarlatina amongst them are 1092 of the former, and 921 of the latter. For England generally the average annual mortality from scarlatina is 923 per million; but out of a million males the deaths are 959, and from the same number of females the deaths are only 889 per annum. It is, therefore, evident that the stronger sex is the more liable to this disease.

(c) B. St. John Ackers, Esq., Prinknash Park, Painswick.

though why it should be so it would puzzle us to explain. A curious circumstance in connexion with this is, that, if we calculate the rates of mortality for specified ages, it appears that this excess in the male death-rate obtains only during the first ten years of life—in childhood,—when the system is (as we shall see) most prone to the infection. For the remainder of life the mortality is actually slightly higher amongst women than men.

2. Another interesting subject of inquiry in connexion with disease is the distribution of its fatal cases in the different ages of life. It must be evident to the most careless observer that scarlatina is emphatically a disease of infancy and childhood, and that it is uncommon for grown-up persons to take it. But how far an apparently high or low death-rate at any age of life may be really owing to a smaller or larger proportion of the population living at that age, and not to any special fatality of the disease, cannot of course be determined without a careful statistical inquiry. In the first place, there is the simple process of merely adding up all the deaths from scarlatina at the different ages of life. From this it appears that nearly two-thirds of the total deaths occur in children under five years of age, and that about one-quarter of the whole number take place during the second quinquenniad of life. Thus we arrive at the surprising conclusion that no less than nine-tenths of the deaths from scarlatina take place in the first decade of life! But, what is more valuable even than this, is to compare the actual deaths at each period of life with the numbers of the population living at that age. This can be done with a little care, and gives the following results:—

*Metropolis.—Scarlatina: Annual Mortality of Males and Females at different Ages of Life, per Million of either Sex supposed to be living at the specified Ages—Average of thirteen years* (1859-71).

| | Males. | Females. |
|---|---|---|
| Under 1 year | 2,274 | 1,789 |
| 1 year and upwards | 6,002 | 5,896 |
| 2 years „ | 7,182 | 6,663 |
| 3 years „ | 6,644 | 6,176 |
| 4 years „ | 5,307 | 5,250 |
| Total under 5 years | 5,358 | 4,926 |
| 5 years and upwards | 2,350 | 2,280 |
| 10 years „ | 446 | 490 |
| 15 years „ | 154 | 160 |
| 20 years „ | 92 | 117 |
| 25 years „ | 54 | 84 |
| 35 years „ | 29 | 40 |
| 45 years „ | 22 | 17 |

Thus, if there be a million of male infants living between the ages of two and three years, 7182 of these are found to die of scarlatina in twelve months; whilst a million of female infants at the same age will lose 6663 of their number from this disease. This is, in fact, the age at which the average mortality from this formidable disease attains its maximum; after this it declines, until it becomes almost imperceptible in adult life.

It is hardly needful to represent the corresponding table for England generally. I have worked it out, and find it to yield similar results—the figures of mortality only being uniformly a little lower than are those for the population of London.

3. *Diphtheria compared with Scarlatina.*—It may be remembered that prior to 1859 all the deaths from these two affections found their way into the Registrar-General's Returns under one column. Perhaps it was believed that these diseases were nearly allied, if not really modifications of one affection. They are so apt to shade one into the other that it seemed hardly possible to preserve an accurate distinction in the yearly and quarterly tables. Have we not had in our own experience cases of anginose scarlatina, with early and severe throat affection and typhoid symptoms predominating, so closely resembling diphtheria as to lend some support to this view of their relationship, if not identity?

Taking the thirteen years (1859-71), we find the average annual mortality from diphtheria to have been, for England, 210 per million of the population. At the same time the death-rate from scarlatina only (as before mentioned) was 923. Taking the metropolitan returns, we find the disparity in these figures still greater; we find the mortality to be for diphtheria 161 per million, for scarlatina 1001 per million. The death-rate from diphtheria is consequently only a fifth or a sixth of that from scarlatina; and I have therefore felt it safe to disregard it in drawing deductions from the returns of a long series of years. The mortality from diphtheria appears to have undergone a considerable diminution during the time that it has enjoyed a separate column in the Registrars' reports. The death-rate for England in 1859 was 488 per million—the maximum point for the period under review. For the five subsequent years the deaths were still considerably above the average; but they have since been steadily decreasing, and have lately hardly reached one-half of their average amount. This is a remarkable circumstance, and would suggest a suspicion whether there may not have been, ten or fifteen years ago, a habit of registering under "diphtheria" many cases that we should now perhaps call "modified scarlatina" or "typhoid."

The seasonal character of diphtheria is in some respects similar to that of scarlatina. The following are the average quarterly mortalities from diphtheria in the metropolis for the fourteen years (1859-72):—

For the first quarter, 41·5 per million.
„ second „ 38·4 „
„ third „ 39·6 „
„ fourth „ 46·2 „

Thus it will be seen that (as in the case of scarlatina) the highest death-rate occurs in the last three months of the year, and the lowest is in the second or spring quarter. But it will be perceived, on an attentive comparison of this little table with the similar one given for scarlatina in my former paper, that the amount of seasonal fluctuation for the two diseases differs very greatly. In the case of scarlatina the difference between the death-rates of the second and fourth quarters amounts to nearly two-thirds of the average quarterly mortality; but for diphtheria the range between the highest and lowest is only one-fifth of the average quarterly mortality.

The distribution of the mortality from diphtheria according to sex shows another important deviation from the law of scarlatina on this point. We have already noticed that for every million of males and million of females in the English population, 959 of the former and 889 of the latter die of scarlatina in the course of a year. In diphtheria the case is exactly the reverse of this. More females die of this disease than males, the deaths of the former being at the rate of 218, and the deaths of the latter being at the rate of only 202 per million of each sex. Comparing these figures, and the similar ones for scarlatina with the average mortality for the respective diseases, irrespective of sex, we find that in diphtheria the female mortality exceeds the male in the same proportion as in scarlatina the male mortality exceeds the female.

The distribution of the mortality from diphtheria according to age is shown by the following table:—

*England.—Diphtheria: Annual Mortality of Males and Females at different Ages, per Million of the Population living at each Age and Sex—Average of thirteen years* (1859-71).

| | Males. | Females. |
|---|---|---|
| Under 1 year | 747 | 561 |
| 1 year and upwards | 996 | 949 |
| 2 years „ | 844 | 936 |
| 3 years „ | 896 | 1,009 |
| 4 years „ | 768 | 942 |
| Total under 5 years | 849 | 871 |
| 5 years and upwards | 401 | 524 |
| 10 years „ | 136 | 206 |
| 15 years „ | 70 | 75 |
| 20 years „ | 39 | 42 |
| 25 years „ | 26 | 31 |
| 35 years „ | 22 | 24 |
| 45 years „ | 24 | 22 |
| Total for all ages | 202 | 218 |

On glancing the eye over these figures it will be noticed that there are two maxima occurring very near together—in the second and fourth years of life. For males the second year is the most fatal point; for females it is in the fourth year. Infant boys under two years are very much more liable to diphtheria than girls of the same age. Afterwards the tables are turned, and boys have somewhat the best of it down to about fifteen years. From this point until the end of life the disease is equally divided amongst the sexes (allowing for difference of population).

On comparing this table with the similar one for scarlatina, we cannot fail to see a strong resemblance between them. Both affections are practically almost confined to the first fifteen years of life; but if we look into it more closely we see some difference also. The mortality from diphtheria does not rise nearly so high in infancy, in proportion to the average mortality at all ages, as does that of scarlatina; and, on the other hand, from about the age of ten years until the close of life its mortality is proportionally considerably greater than that of scarlatina.

4. Some remarks, in conclusion, upon our present prospects in regard to the disease which forms the subject of this paper. There is little doubt that we are now at the commencement of another "epidemic" of scarlatina. For three years and a half there has been very little of this disease in London—so little that for the whole of 1873 the number of deaths from scarlatina was actually the smallest that had occurred for thirty-four years, in spite of the great increase of the population in the meantime. Those who have watched the Registrar-General's weekly statements will have noticed that the deaths in London from scarlatina have risen above the average since the beginning of September. The numbers have been—

| | | | |
|---|---|---|---|
| For the 36th week (ending September 12) | . | . | 87 deaths. |
| „ 37th „ | . | . | 105 „ |
| „ 38th „ | . | . | 75 „ |
| „ 39th „ | . | . | 107 „ |
| „ 40th „ | . | . | 107 „ |

The last epidemic of scarlatina may be remembered as a long and severe one. The mortality was above the average for two years and three months. It commenced in London in the last week of September, 1868,—at least, the deaths then were first above their average, the deaths having risen from 74 in the preceding week (the average number) to 101. This high figure was maintained for twelve weeks following, reaching a first maximum of 124 towards the end of October. Towards Christmas a decided amendment took place, and this was maintained until midsummer of 1869, the deaths for the six months averaging, however, 51 per week. At the end of July, 1869, the deaths had again reached 100, but they rapidly rose to 238 in the last week of September. The weekly number remained above 200 for no less than eleven weeks, and reached its second maximum (245) in the last week of November. The deaths did not fall below 100 until the ninth week of 1870, and then a temporary decline took place, and continued through the three spring months, to rise again at midsummer, 1870. Six months of great fatality again followed, and extended to the first week of 1871, and after that the fever, worn out, rather suddenly died away. The average weekly deaths of the last six months of 1870 reached the astonishing figure of 140, but the third maximum (198), attained in the second week in October, contrasted favourably with that of the previous year.

These facts may help us in forming our prognosis of the coming epidemic. Whilst this paper is writing, I observe in the *Medical Times and Gazette* of October 10 that I have been already somewhat anticipated by Dr. Tripe, who has recently reported to the Hackney Board on the subject of scarlatina. He has drawn attention to the periodicity and the long duration of the epidemics of this disease, and to the probability of the present visitation attaining its maximum, not immediately, but in the autumn of 1875, or even later. I am the more encouraged in publishing such results as I have attained by finding that they appear to be agreeable with the conclusions come to on the subject by so experienced a worker in statistics and sanitary science as the medical officer for the Hackney district.

From our knowledge of the general course of recent visitations of scarlatina, we may pretty confidently expect that for the metropolis generally the epidemic just commencing will not be very severe *as yet*. It will attain its first maximum before the end of November, and then pretty quickly decline through the ensuing winter and spring, and perhaps be forgotten (though the deaths would still be found to be above the average). If it follows the course of the last epidemic, it will probably return in July or August, 1875, and rise rapidly to a very high second maximum point in October or November, as pointed out by Dr. Tripe. Beyond this we cannot venture to speculate, but we may feel pretty confident that, in spite of all sanitary precautions, the disease will run its course, and the weekly deaths will be above their average for two years, and perhaps longer.

It is quite possible, however, that this epidemic may approximate in its behaviour more to that of 1861-65 (though I do not think this so likely, judging from the mode of its commencement). In that case the mortality would be rather higher in the winter before us (1874-75), but the disease would remain in partial abeyance through the remainder of 1875, and would not reach its highest severity until the autumn of 1876.

No one, of course, can speak positively of the future, and in such forecasts the saving clause must always be borne in mind—"if the disease follow the usual course of former visitations." But we should be thankful to Dr. Tripe for using the experience of the past as a warning forecast, and we may learn from such statistical inquiries (which place before us some of the features of disease in a numerical, and therefore a more reliable form) that these diseases have their own laws of recurrence, and that, although we may materially mitigate their severity by sanitary precautions, it is yet beyond our power to annul those laws that govern their progress, and whose origin is at present beyond our reach or comprehension.

Stoke Newington.

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THE

# MUTUAL RELATIONS OF DISEASES OF THE HEART AND RESPIRATORY ORGANS.(a)

By J. MILNER FOTHERGILL, M.D., M.R.C.P.,
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A GLANCE at the anatomy of the circulation reveals at once the intimate relations existing betwixt the circulatory and the respiratory organs. It is equally obvious that disease in the one must more or less affect the other. If there be a lesion in the mitral valve, the pulmonic circulation, lying as it does betwixt the two sides of the heart, must become engorged. Such engorgement in the limited thoracic space must diminish the functional activity of the lungs by lessening the capacity of the chest for air. Consequently dyspnœa is a common symptom of disease of the heart. Practically it is a matter of no very great importance whether the lesion be that of stenosis or of insufficiency. In the one the valvular vela are bound down and matted together by agglutinating connective tissue, and the narrowed orifice offers an obstruction to the blood coming in from the lungs; in the other the free edges of the valves are distorted and deformed by the production of similar histological elements, until the valves are no longer competent to close the ostium on the ventricular contraction. In the latter case the blood coming in from the lungs is met by the regurgitating current driven backwards by the contraction of the ventricle. In each case the pathological results are the same. However interesting diagnostically the difference betwixt mitral stenosis and insufficiency, the real value of the distinction is comparatively small. The changes so instituted consist of dilatation, with thickening of the walls of the pulmonic vessels, together with a similar condition of the chambers of the right heart. The method by which these changes are induced is as follows:—The current of blood in the pulmonary veins is more or less arrested at or about the mitral orifice, while the right heart continues to pump blood into the pulmonic circulation. There is consequently a high pressure in the gorged and distended pulmonary vessels. They become enlarged and thickened by a hyperplasia of cell elements, which gives them more or less of strength or resisting power against the increased distending force to which they are now subjected. The walls of the right heart also grow to meet the obstruction now offered to their contraction, and there is hypertrophy, combined with enlargement of the ventricular chamber. In fact, the difficulty at the mitral valve is largely met and compensated by this increase in the power of the right heart; and an increased blood-pressure in the pulmonic circulation has the effect of driving the blood through the narrowed orifice with increased current, or of instituting a greater resistance to the regurgitating stream. If the compensation be fairly good, and the demands upon it reasonably moderate, as is the case where general quietude is maintained, years may roll away without much further change being established. Frequently, however—more swiftly than actually need be,—other consequential pathological changes are instituted in the different divisions of the respiratory system. What these changes are may profitably engage our

(a) Read before the Medical Society of London, October 26.

attention. The lungs consist of bloodvessels and air-tubes, with their terminal sacs, bound together by connective tissue. Throughout nerves are sparingly scattered. We do not know how far the nerves are structurally implicated in the changes we are about to speak of. They interest us in so far that they have much to do with the action called cough, whether due to distant irritation or to exciting causes situated within the lungs themselves. In general vascular congestion of the lungs we commonly find a dry, harsh cough—the characteristic heart-cough, often of such great diagnostic value. It is readily produced in most persons by rapidly ascending long flights of stairs, when there is induced passing pulmonary engorgement. But we know nothing as yet of structural changes in the pulmonary nerves induced by vascular fulness.

The pathological changes, as might be expected, show themselves chiefly in the bloodvessels and in the lining of the air-tubes. There is, however, in many cases a considerable development of connective tissue. In some cases it almost amounts to interstitial pneumonia. According to Rokitansky and Rindfleisch, this growth of connective tissue is accompanied by a development of pigment, and from these pigmentary changes they denominate the pathological condition "brown induration." This development of connective tissue interests us clinically in so far that the question may be both raised and maintained that this histological growth may be regarded as a not altogether useless and pathological change. It may be an actual hyperplasia which strengthens the lung tissue and protects it from vesicular emphysema in the violent respiration so commonly found in the course of mitral disease. Certain it is, we cannot conceive of any other plan by which the lung structure could be strengthened except by the growth of simple connective tissue. Emphysema does not usually show itself very markedly until the lung tissues are wearing out and undergoing degeneration.

The symptoms produced by the changes in the pulmonic circulation are often very alarming. They are of two kinds. One is an excessive dyspnœa from the air space of the thorax being diminished by the accumulation of blood. This condition is often aggravated by a swollen and gorged state of the lining of the air-tubes. If this change in the mucous lining of the air-tubes be pronounced, the calibre of the finer subdivisions of the bronchi is almost obliterated, and the most distressing dyspnœa results—one of the most harassing and trying outcomes of disease of the heart. The other is rupture of the walls of the pulmonary bloodvessels, and hæmorrhage—the much dreaded hæmoptysis. All effusions of blood from internal cavities are alarming; usually they are serious, and not uncommonly they are fatal. But such is by no means always the case, and at times hæmoptysis is an excellent form of local bleeding. Such it often is; and as such it is far from injurious, and derives its prognostic import rather from the conditions with which it is causally related, and on which it depends, than from gravity in itself. As regards the effects of loss of blood, there is no distinction betwixt that lost by hæmoptysis and that lost by an accident. But if hæmoptysis can be averted by well-directed remedial measures, it is ever desirable that the resort to it be done away with.

At other times the congestion may be so severe as to be fatal without any hæmoptysis. Rokitansky thinks this a much more common cause of sudden death than is usually credited. Very frequently there is not only general vascular congestion, but there is also hæmorrhage into the structure of the lung—the infarctus Laennecii. These are circumscribed masses of blood, black and round, of the size of a billiard-ball or larger, scattered throughout the lungs. If not immediately fatal, gangrene may follow. In the dead-house of Vienna, dark pigment-stained lungs, studded with these globular masses of black blood, are to be seen every morning in the youthful victims of mitral stenosis; for stenosis is there much more common than is the form known as insufficiency.

The changes in the air-tubes are chiefly confined to their mucous lining. The prominent symptom is chronic bronchitis,—or serous bronchorrhœa, as it might be more fitly termed, as it is highly questionable how far there is any actual cell proliferation or inflammation. The consideration of this point will detain us a moment, as it is a matter of some importance therapeutically to be clear as to the actual pathology. For long it was thought that the bronchial arteries were alone the nutrient vessels of the respiratory viscera, and that there existed no inosculations betwixt the terminal branches of these vessels and those of the pulmonic circulation. The occurrence of gangrene of the lungs after an embolon in the pulmonary vessel of the circumscribed area led to inquiries as to the relation of the pulmonary vessels to the nutrition of the lungs. Heale and Reisseisen decided that the relation existed; and Rossignol has found pretty wide (*ziemlich weite*) anastomoses betwixt the pulmonary and the bronchial vessels, according to Rindfleisch. The consequence of this has been that the bronchial flow of grave mitral disease has been supposed to be due to excessive blood-pressure in the pulmonic circulation, differing from hæmoptysis merely in degree; and this impression has rather stood in the way of treatment. The logical outcome obviously was, that if the blood-pressure in the lungs were to be increased the bronchial flow would be exaggerated. The reverse, however, is the actual fact. As we saw before, in an earlier section, a dry, harsh cough is the cough which is almost pathognomonic of pulmonary congestion. At the same time we know that digitalis is a most efficient remedy in the treatment of the bronchial flux of advanced mitral disease; and yet this agent increases the pressure within the pulmonary vessels. What is the conclusion, then, to which these facts distinctly point? It is this. In spite of the conclusions of Rossignol as to the anastomoses existing betwixt the pulmonary and bronchial vessels, the bronchial flux is rather due to congestion of the bronchial veins than to general pulmonic congestion. The bronchial vascular area is involved in the general venous congestion. Niemeyer says, "Patients with mitral disease are always short of breath, in consequence of hyperæmia of the lung. As the vessels of the bronchi are less affected than those of the air-cells by this engorgement, the dyspnœa is not always combined with bronchial catarrh; as, however, the bronchial and pulmonary arteries anastomose, nay, as part of the blood of the capillaries and bronchial arteries flows into those of the pulmonary artery, the dyspnœa is generally accompanied by bronchial catarrh." Anatomically these anastomoses exist, no doubt; the question for us now is, To what extent do these anastomoses act, looked at clinically? The first half of Niemeyer's sentence shows that practically they exist but to a limited extent. In practice the bronchial flux is most efficiently controlled by an agent which actually increases the pressure upon the walls of the pulmonary vessels.

A similar line of inquiry reveals to us an almost identical array of facts in relation to the effusions from the pleura which are so common during the later stages of mitral disease or of dilatation of the heart. The fact of its occurrence in dilatation of the heart from fatty degeneration, or other cause of adynamy, without any valvular lesion, points distinctly in any other direction than that of sthenic pulmonary engorgement. It is alike in the later stages of each form of cardiac disease that we find pleuritic effusion—when, indeed, there is general venous congestion; in fact, this effusion from the pleural surfaces is linked with venous fulness, not with high pressure in the pulmonic circulation. The pleura is supplied with vascular twigs from the intercostal vessels, the intramammary, the phrenic, the inferior thyroid, and the bronchial arteries; the veins returning to the vascular areas from which the arteries spring. Pleuritic effusion, then, forms a part of the general œdema, is found along with it, and is due to the same causal conditions; it is also relieved by those therapeutic measures which are found useful in the palliation of the general condition. In the selection of our remedial measures the true pathology of both the bronchial flux and the pleuritic effusion of heart disease will give us valuable indications. It is not easy to be quite so confident that pulmonary œdema is not sometimes causally connected with pulmonary congestion of a sthenic character. Some cases would almost tend to show that it was so associated; but the bulk of cases would rather point to its relationship to venous fulness or adynamic pulmonary congestion. Like the infarctus Laennecii, it may indicate a compensatory enlargement of the right ventricle not yet exhausted; but such is not usually or commonly the case.

Emphysema, too, is not usually found until the later stages of heart disease. A certain amount of it along the margins of the lungs, on each side of the sternum, is not uncommon at an early period, especially where the heart disease is associated with a history of great muscular effort. But emphysema, as we ordinarily understand it, is not found until there is a general "breaking-up" of the system—when, as Baslam has pointed out, the tissues of the lung are losing their integrity and entering upon degenerative changes.

Having sketched the effects of disease of the heart, and especially of mitral disease, upon the respiratory organs (the importance of which it is not easy to over-estimate), the other side of the question—viz., the effect of disease in the

respiratory organs upon the right heart, and the consequential changes thereby produced—may now engage our attention.

It is equally obvious, on examining a chart of the circulation, that any obstruction to the blood-flow in the pulmonic circulation, due to changes in the lungs themselves, will induce changes in the right heart. What those changes are was beautifully illustrated by a case recently brought before the Pathological Society of Dublin by Dr. A. Wynne Foot, of that city. The man was the subject of chronic interstitial pneumonia, with bronchial troubles of old standing. The obstruction offered to the blood-flow had produced much enlargement of the right side of the heart, and enlargement of the pulmonary artery and its valves. These latter were not diseased; they were truly hypertrophied, even to the development of corpora Arantii. There was an augmentation of volume, which had never passed beyond normal growth; there was no valvulitis indicating hasty, well-meant, but unfortunate and ill-regulated cell-growth. There was, indeed, increased cell-production, but it never passed into anything abnormal or into parenchymatous inflammation.

This case throws a flood of light upon the origin and progress of cardiac valvulitis. The valvular vela can only be strengthened by the growth of connective tissue, and by this means the valves kept pace with the growing muscular hypertrophy; and by similar growth, in this case, the pulmonary artery attained the volume and thickness which are normal to the aorta. The misfortune is that such compensatory hyperplasia is not more frequent. Very commonly indeed there is hypertrophic enlargement of the muscular walls of the right heart, and for a time at least a new balance maintained betwixt the obstructed circulation and the driving power of the heart. Sooner or later, however, the hypertrophic compensation wears out; not rarely the increased strain upon the tricuspid valve has led to such hasty cell-production as constitutes valvulitis, with consequent distortion of the vela, and incompetence in the valve. Then follow venous stagnation, especially in the valveless portal circulation, congestion and growth of connective tissue in the liver, spleen, and kidneys,—the latter change being of much importance; alterations in the stomach and intestines, and impaired assimilation; indeed, the consequences of heart disease superimposed upon the pre-existing condition of chronic disease of the lungs.

Niemeyer makes some profound observations upon the conditions of the lungs which produce these consequences in the vascular system. He states that mere bronchiectasis without induration of the lung tissue, and consequently obliteration of the terminal pulmonic capillaries, does not induce the changes detailed above. Also that in pulmonary consumption these vascular changes are ordinarily wanting; and he attributes this immunity to the reduction in the bulk of blood then obtaining —"the volume of the blood is reduced by hectic fever." In my own experience I have found that when pulmonary tuberculosis is accompanied by dilatation of the right side of the heart, the case goes very rapidly from bad to worse.

The effects of passing lung affections upon the right heart, and the exhaustion of the right ventricle induced by the long effort of driving the blood through the respiratory organs when the subject of disease, often form serious and even fatal complications. A very illustrative case occurred recently in the practice of my friend Dr. David Thomas, of Ystalyfera. The patient had had a sharp attack of bronchitis under the care of one of Dr. Thomas's assistants, and the bronchitis was itself over; but the man was sinking, with a pulse too rapid to be counted, and with other evidences of failure in the circulation. Dr. Thomas at once, on being called in, diagnosed dilatation of the right heart from exhaustion. He gave digitalis according to the instructions laid down by me in my essay on that agent ("Digitalis: its Mode of Action and its Use"), with the gratifying result of rapid improvement and ultimate perfect recovery.

Such consequences are grave when occurring in a heart previously perfectly healthy; but the matter is much more serious when passing affections of the respiratory organs occur in those who are already the subjects of mitral disease, and where the right ventricle has been already handicapped by an increased obstruction offered to it. Under these circumstances, the right heart, already embarrassed, is apt to become incompetent and yield under the new burden imposed upon it. It has been considerably taxed by the pre-existing disease, and is consequently less equal to the new demand than if it had been hitherto untried and its powers of compensatory growth and action been so far undrawn upon. At an early period of my professional career I was much chagrined at losing two or three patients in attacks of bronchitis from which they could fairly have been expected to recover. In each case there was, however, already existing a certain amount of mitral insufficiency. On mentioning the matter to an old and observant member of our profession, he remarked that such was always the case. Though comforting to the irritated self-pride, there was little in this observation practically useful either to me or my future patients, except prognostically; so I set to work to think out the matter for myself. The climate of Westmoreland is favourable to the production of bronchitis, and ere long opportunities offered themselves of putting my conclusions into force, of testing their validity in actual practice. Several cases of bronchitis in persons who were the subjects of already existing heart disease were brought to a satisfactory termination by means of remedial measures, which included an attention to the condition of the right ventricle, and comprised within their scope the necessities and exigencies of already taxed muscle subjected to an unusual demand upon it. By a reduction of the amount of blood passing through the heart in a given time, by the use of digitalis, and the administration of stimulants and appropriate food,—a reduction, in fact, of the demand upon the heart to the lowest practically attainable minimum, along with measures calculated to maintain its energies,—a large proportion of my cases were conducted to a termination alike satisfactory to my patients and to myself.

In a large proportion of cases of disease of the respiratory organs, alike in acute but severe ailments and in the less acute but more persistent and enduring forms of disease, the great danger to life threatens on the side of impending exhaustion in the right half of the heart; and measures directed to this source of peril are absolutely essential and necessary to the preservation of the existence of the organism. When the pulse begins to mount, to decrease in volume as it grows in rapidity, then when it begins to falter and ultimately to intermit, we all know that death is near at hand; but we do not all equally recognise the true pathology of the case, that the circulation is failing in the right heart primarily, and that the arterial pulse is not the measure of the capacity of the left ventricle, but the index of the state of the right ventricle; that, indeed, the left ventricle is keeping time with the right chamber, and that the tiny bulk of blood thrown into the arterial system at each stroke of the left heart is that amount coming in from the over-taxed and almost overwhelmed right heart; that the left ventricle can only send on that amount that it itself receives.

The foregoing consideration points out to us that the connexion betwixt the organs of the circulation and those of respiration is such that changes in the one result and eventuate in changes in the other—strictly consequential changes, we must remember. From this we can see clearly that a great portion of the importance of valvular disease of the left side of the heart consists in the resultant affections of the respiratory organs, by which life may be threatened directly; or by which mediately such additional labour may be thrown upon the right heart that its compensatory powers may be quickly exhausted, and the life of the organism be arrested long ere its due time has expired, from the accumulation of demand upon limited powers of endurance. Such being the case, we must never be oblivious of these pathological sequences; and our remedial measures must ever be guided and directed by a clear comprehension of the anatomical and physiological relations of the organs of circulation and respiration, of their mutual dependence upon each other, and by the knowledge which pathology has given us—that their affections are linked together by indissoluble ties, and that the one rarely, if ever, exists without the other being involved in time, as the vicious circle of disease spreads and widens.

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Scarlet fever having again appeared at Castle Cary, it is proposed to erect an infirmary, and one gentleman has offered to give a site and £50, and another £100.

The late Dr. William Hargrave.—At the last monthly meeting of the Governors of the City of Dublin Hospital the following resolution was passed unanimously:—"That this Board desire to express their deep condolence with the family of the late Dr. Hargrave upon the decease of one who was for thirty-six years a valuable and honoured member of this Board, most constant in his attendance, and ever zealous for the welfare and prosperity of the City of Dublin Hospital."

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## THE MIDDLESEX HOSPITAL.

### ANEURISM OF FIRST PART OF ARCH OF AORTA—ULCERATION AND PERFORATION OF TRACHEA AND ŒSOPHAGUS—DEATH FROM PRESSURE ON TRACHEA.

(Under the care of Dr. GREENHOW, F.R.S.)

[We are indebted to Dr. Coupland (the Medical Registrar) for this report.]

John T., aged 38, married, a warder in a convict prison, was admitted into Founder ward on September 18, 1874. He had previously been a soldier, and had served in India, where he contracted syphilis about twenty years ago. He had also suffered from a slight attack of "fever" when in India. Otherwise he had enjoyed good health. For about five months previous to admission he had been suffering from hoarseness accompanied by a gradual loss of voice and a troublesome cough. His breath, too, had become short on exertion. Four days before admission he felt pain in his chest at the ensiform cartilage; pain which was increased by the recumbent posture. He had experienced no difficulty in swallowing. Of late he had lost flesh.

*State on Admission.*—A well-developed, muscular man. There is slight but noticeable lividity of lips, and the face has a dusky appearance. He speaks in a hoarse whisper, and suffers from a troublesome laryngeal cough of a clanging character, occurring paroxysmally and attended by the expectoration of a clear frothy fluid, slightly blood-tinged, and at times containing some rust-coloured masses. The tongue is thinly furred. The chest is broad and symmetrical; there is no supra-sternal pulsation nor general raising of sternum, but on looking along the plane of the anterior chest-wall a very slight wave of pulsation can at times be observed over the upper half of that bone. Occasionally, also, a slight thrill is to be felt in the same region. The superficial thoracic veins are more evident than usual, but no difference exists between the two sides in this respect. The external jugular veins are turgid and pulsatile. The expansion of the two halves of the chest is fair and equal. On percussion there is hyper-resonance over the whole front of the chest, obscuring the præcordial area, except over the manubrium sterni, where the resonance is decidedly impaired. The breath-sounds are harsh; the expiratory murmur much prolonged and sibilant. The apex of the heart cannot be felt, but there is notable epigastric pulsation. The first sound is clear and accentuated below the ribs, but over the true præcordial area it is muffled and indistinct. The second sound is similarly obscured save at the second right cartilage, where it is sharp and metallic in character. Posteriorly, there is impaired resonance in the interscapular regions; and one inch to left of middle line, just below the level of the spine of the scapula, the breath-sound is notably stridulous in character. Elsewhere it is harsh, the expiration prolonged, and accompanied or replaced by coarse rhonchus. The heart-sounds are plainly audible in the left vertebral groove. No abnormal bruit heard either there or elsewhere. There is a marked difference in the character of the two radial pulses, the right being much fuller and more tense than the left. The pupils are equal and act well.

On the 22nd Dr. Greenhow examined the patient with the laryngoscope, and found deep injection of the rima glottidis and adjacent parts, which were very irritable. The larynx was filled with a frothy secretion; the vocal cords appeared to act normally. He was ordered a mixture containing bromide and iodide of potassium with carbonate of ammonia, and he was put upon low diet.

On the 24th it was noted that the cough continued to be troublesome, the sputa retaining their previous characters, only more markedly tinged with blood. The difference between the radial pulses still persisted, and the physical signs remained unaltered, save that there was now heard a very faint systolic murmur at the upper part of the sternum, and the first sound of the heart was reduplicated at the apex.

But little change occurred until 10 a.m. on the 28th, when the patient was seized with an attack of dyspnœa, attended by a feeling of constriction round the throat. The lips became rather livid during the seizure, which did not seem to alarm the patient, for he remarked (for the first time) that he was subject to such attacks, and that he always found relief from the application of mustard. He was ordered a linseed and mustard poultice to the throat, and inhalation of sulphuric ether (℥ss. to a pint).

He soon completely rallied; but at 4.20 p.m. he was seized with another paroxysm of dyspnœa, in which he speedily became cyanosed, and appeared to be *in articulo mortis*. Thus, there was complete unconsciousness; the eyes were dull, glazed, conjunctivæ insensitive; the respirations were very slow and laboured; and the body was bathed in a cold sweat. The pulse, however, remained fairly steady, regular, and of good volume. Laryngotomy was forthwith performed by Mr. Clark; there was much venous bleeding. Artificial respiration was then had recourse to, and an enema of brandy administered. In about ten minutes consciousness began slowly to return; the lividity had in great measure, but not entirely, passed off; while the jugular veins still remained turgid. The pulse, which had become very intermittent, increased in force and regularity; the respirations increased to thirty-six, but were still laboured. Numerous moist râles were heard all over the chest. The patient never thoroughly rallied, but gradually sank, dying at 9 a.m. on the 29th.

The following is an account of the conditions found at the post-mortem examination:—The mucous membrane of the larynx was injected, but, save in the neighbourhood of the incision for laryngotomy, not inflamed. The anterior mediastinum was occupied by a small tumour, which projected forwards between the emphysematous margins of the lungs, and impinged against the posterior surface of the manubrium sterni. There was no adhesion here, but the periosteum was notably thickened. On laying open the pericardium the right auricle was found to be almost wholly overlapped by the greatly dilated aorta. This vessel was dilated from half an inch above the semilunar valves to within one inch from the innominate artery; its inner coat was thickened by atheroma irregularly distributed. The dilatation extended more in a posterior than in an anterior direction, and at its highest part it was prolonged backwards and upwards in the form of a large ovoid sac adherent to the trachea, œsophagus, and spine, while the arch of the aorta passed in front of it and was separated from the cavity of the sac by a thick septum formed by the aortic wall. A smaller sacculation, of the size of a walnut, passed forwards and to the right, projecting into the anterior mediastinum, as above stated. This was filled by laminated clot, and was bounded above by the left innominate vein, while on its left were the innominate artery and dilated aortic trunk. The relations of the main portion of the aneurism (which was filled chiefly by masses of soft black clot, shreds of laminated coagula adhering to the walls) were as follows:—Below was the arch of the aorta, to which it was inseparably adherent; in front of it passed the left carotid and subclavian arteries, both—the latter particularly—being firmly adherent to the wall of the sac, in a groove of which the subclavian was embedded. The vagus nerve passed to the left of the sac in its downward course. It gave off the recurrent laryngeal nerve in the usual place; and this nerve, after passing beneath the arch of the aorta, was carried out of its direct course by the intrusion of the aneurism, over the walls of which it was stretched. For a distance of three inches the blending between the nerve and the outer sac-wall was so intimate that they could not be separated; but above this the nerve was traced to its termination in the larynx. Posteriorly the sac was firmly and inseparably adherent to the left side of the lower half of the trachea, and to the anterior wall of the œsophagus. On laying open the œsophagus the mucous membrane at the seat of adhesion was seen to be puckered and eroded, while a fine aperture existed at this point leading into the sac of the aneurism, but plugged by firm decolorised clot. The lining membrane of the trachea was throughout much injected, and in the lower half of the tube there was an oval projection two inches long, terminating just above the left bronchus. The walls of the aneurism were here very thin, and two or three of the tracheal rings were partly destroyed; while here also the aneurism had been on the point of rupture, for two minute ulcerations occurred on the most prominent part of the projection, and one of these was actually in communication with the cavity of the aneurism. Finally, although the aneurism impinged against and was adherent to the spinal column at the second and third dorsal

vertebræ, yet these bones were not eroded. The lungs were highly congested and œdematous. The remaining viscera were healthy.

*Remarks.*—The foregoing case has a certain clinical interest. In the first place, the diagnosis was made not without difficulty, for the signs of aneurism or even of intra-thoracic tumour were certainly limited in degree, if not in extent; and the fact of the man having contracted syphilis (although his health does not seem to have suffered from it) was such as might have misled one into the belief that the laryngeal symptoms were due to wide-spread intrinsic disease; but this was negatived by the laryngoscopic examination. Read by the light of the post-mortem, however, all the links in the chain of evidence in favour of aneurism are seen to be closely bound together. The laryngeal symptoms were due to no intrinsic disease, but mainly to the pressure of the aneurism on the lower half of the trachea, and in part, also, to the involvement of the left recurrent laryngeal nerve in the wall of the sac. The dyspnœal attacks and the proximate cause of death also find their solution here. The streaks and rust-coloured masses of blood in the sputa must have come from the ulcer in the trachea; and it is only to be wondered that the aneurism had not fully ruptured into this tube. In fact, it might be said that the pressure on the trachea caused death before time had been given for the walls to yield. Many other symptoms are clearly explained by the post-mortem record. Thus the greater fulness of the right as compared with the left radial pulse was probably due to the left subclavian artery being actually embedded in the wall of the sac, and therefore necessarily narrowed every time this sac filled with blood. The turgidity of the jugular veins, and the slight but manifest enlargement of the cutaneous thoracic veins, and other slight signs of impeded circulation, as lividity of lips, were doubtless due to the stretching and displacement of the innominate veins, especially the left. The dulness over the manubrium sterni and the stridulous breathing over the seat of the left bronchus also find their explanation—the one in the forward projection of the smaller sacculation behind the sternum, the other in the narrowing of the left half of the trachea by the main aneurismal sac. Two signs were, however, absent, which, knowing only the post-mortem appearances, one might have expected to have been present—there was no dysphagia, and there was no notable impairment of the action of the vocal cords.

P.S.—Since the above was written the effects of pressure of aneurismal or other tumours upon one vagus or recurrent nerve have been fully discussed at the Medico-Chirurgical Society in a paper contributed by Dr. George Johnson. The present case resembles those referred to by Dr. Sibson in the debate that followed the reading of that paper, where symptoms due to the implication of the recurrent nerve are complicated by symptoms due to direct pressure on the trachea.

## SEAMEN'S HOSPITAL.

### ABSCESS OF LIVER TREATED BY ASPIRATION, SUBSEQUENTLY BY FREE INCISION AND INSERTION OF DRAINAGE-TUBE—DEATH FROM PLEURISY AND EXHAUSTION.

(Under the care of Dr. RALFE.)

[We are indebted for the notes of the following case to Mr. Andrew Duncan, House-Physician at the Hospital.]

Assan A., a Lascar, aged 38; admitted into the Seamen's Hospital on June 18, 1874, under Dr. Ralfe, suffering from bronchitis and pain in the right hypochondrium. He states that he has just come from Calcutta; that he had been quite well until a fortnight before his admission, when he passed some blood with his motions. This was speedily checked by medicine. In a few days he felt pain in the hypochondria, more especially the right. He is emaciated. Sonorous rhonchi audible all over chest; no dulness; frothy sputum; liver dulness normal; has no shoulder-tip pain, but the whole hypochondriac region is extremely sensitive to pressure. Ordered mist. ammon. carb. cum senegæ.

June 30.—Bronchitic signs much less. Pain in the right hypochondrium increased. An enlargement has appeared occupying the course of the ascending colon. Ordered an enema of castor oil.

31st.—The enema has brought away large masses of scybalæ. The tumour has disappeared; pain much relieved.

July 1 to 20.—The tumour has reappeared and gradually increased in size; the bowels being obstinately constipated. No fluctuation can be detected in the swelling; no rigors or hectic. Evening temperature normal. No shoulder-tip pain; the right rectus muscle is rigid.

28th.—Fluctuation has become perceptible on deep pressure. The tumour occupies the right hypochondrium and lumbar regions, extending to within half an inch of a horizontal line drawn from the navel, and slightly into the epigastrium. The tumour can be felt through the posterior wall of the abdomen, and can be lifted up, as it were, by the hand placed beneath it; there appear to be no adhesions. In consultation with Mr. Johnson Smith it was decided to draw off the contents of the tumour by means of the aspirator. The trocar was introduced just below the margin of the ribs, and passed obliquely downwards for about four inches, through the liver tissue, when the abscess was reached, and eight ounces of sanious and offensive pus drawn off. Ordered ext. opii gr. ij. statim.

29th.—Patient much relieved, and the tumour greatly diminished.

September 1.—For two weeks after the operation the patient rapidly regained his strength, and had entirely lost the pain in the hypochondrium. About a fortnight ago he had a fresh exacerbation of pain, whilst the tumour again began to form. The tumour now presents the following characters:—Liver dulness: median line, base of xiphoid to one inch and a half below apex (two inches and a half); nipple line, fifth rib to three inches and a half below costal margin, extending to level of umbilicus (seven inches and a half); axillary line, seventh rib to one inch and a half below costal margin (six inches and three-quarters); dorsal line, tenth rib to half an inch above iliac crest. The seventh, eighth, ninth, and tenth intercostal spaces are somewhat bulged outwards. There is also evident bulging between the ends of the ribs in the axillary line and the iliac crest. Evening temperature 99·2°; pulse 86.

2nd.—Aspiration of the tumour performed by Mr. Pope; the trocar was introduced in the same direction as before, but had to be inserted only three inches and a half before nine ounces of dark sanious pus evacuated.

30th.—After the last operation the patient experienced relief for a fortnight, when the pain and swelling returned. The tumour is now of greater dimensions than on the previous occasion. Area of liver dulness: median line, fifth space at sternum to one inch and a half below apex of xiphoid, thence skirting the median line to one inch and a half above umbilicus; nipple line, fourth space to three inches and a half below rib (eight inches and a half); axillary line, seventh rib to tenth space (six inches and a half); dorsal line, eighth space to eleventh space (six inches and a quarter). Skin apparently adherent to tumour.

October 1.—Mr. Smith made an incision with a bistoury an inch long into the substance of the tumour, about three inches above its lower margin. A large quantity of dark sanious pus escaped. The finger could then be passed into the substance of the tumour, when a large cavity could be felt occupying the anterior part of the right lobe. Walls of the cavity somewhat granular. Some rather free hæmorrhage ensued, which was checked with perchloride of iron and carbolic acid.

5th.—General condition improved. The cavity of abscess to be syringed out daily with solution of carbolic acid (1 to 200). Drainage-tube inserted. Poultices.

20th.—Has night-sweats; hoarse blowing breathing audible over both lungs; no dulness; muco-purulent expectoration. Cavity of abscess contracting; washed out with Condy's fluid. General condition more exhausted.

22nd.—Complains of pain in lower part of left axilla. A friction-sound audible at base of left lung. Vomiting. The liver has receded towards the back of the abdominal cavity. The finger cannot reach the sac of the abscess. Ordered pil. saponis in opio gr. v. 4tis horis.

23rd.—The patient died at 11.30 a.m.

*Post-mortem* (October 24, twenty-five hours after death).—Rigor mortis was present. Thorax: Bronchi congested and inflamed. Pleuræ: Recent lymph effused on posterior surface of lower lobe of left lung, and on the whole of the diaphragmatic surface. Abdomen: Liver weighed forty-nine ounces; adherent to skin and duodenum. Cavity in lower border of right lobe about three inches diameter; wall of cavity granulating up. Rest of liver healthy, with the exception of some fatty degeneration on the upper surface of the right lobe. Spleen weighed five ounces and a third. Kidneys large and fatty. Colon and cæcum showed no marks of ulceration, old or recent.

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# Medical Times and Gazette.

SATURDAY, DECEMBER 19, 1874.

## REPORT OF THE DISTRIBUTION COMMITTEE OF THE HOSPITAL SUNDAY FUND.

The General Purposes Committee of the Hospital Sunday Fund has just submitted its report to the Council, explaining the principles of the distribution of the Fund which were adopted at the public meeting in October, 1873, when the present Council was elected. The report states that sermons were this year preached, and collections made on behalf of the Fund, at nearly 1300 places of worship—about 200 more than in 1873. The total sum received up to the present date amounts to £29,678 13s. 2d., including £70 16s. 6d. received from cash put out at interest. The foregoing amount is larger than that collected in 1873 by more than £2000—a result which (the Committee thinks) proves that the movement is not only recognised, but established. The expenditure, including all charges incidental to the collection and distribution of the Fund, as well as the cost of working the Fund, including printing and advertising, amounts to £926 17s. To this has to be added some outstanding liabilities, which will make the total expenses this year nearly 3½ per cent. on the sum collected. The Distribution Committee by their award have appropriated £28,348 10s. 7d., leaving £537 18s. 2d. to be carried forward to discharge the outstanding liabilities, and to meet the preliminary expenses of next year's collection.

After acknowledging the valuable services rendered by president, chairman, and honorary secretaries, the report goes on to explain the method adopted for determining the question of distribution: classified statements of income and expenditure for a period of three years were demanded from all institutions seeking benefit from the Fund; these, when rendered, were compared with results obtained at the Mansion House by careful calculation from the printed reports of the several hospitals, etc., and in most cases the discrepancies found to exist were so trivial as not to demand further inquiry. But while basing their award in each case upon the last three years' expenditure of the institution, the Committee also deemed it right to take into consideration the presumable amount of good done in proportion to the expenditure incurred. The instructions given them to guide them in the work of distribution were—1. That the system of distribution be based on the last three years' expenditure of each institution, after deducting the income derived by it from endowments, realised property, and legacies exceeding £100. 2. That no institution be admitted to participate in the distribution of the Fund, if the Committee find that the cost of its management exceeds a reasonable percentage of the whole current expenditure. 3. That it be an instruction to the Committee of Distribution to place dispensaries on the same footing as hospitals, taking the legitimate expenditure of these institutions and the ordinary charitable income as the basis of distribution in each case. Claims were made by certain institutions and funds, meritorious both in object and management, but which were yet not considered eligible to be admitted to participate. Among these were the Hospital for Incurables, the Truss Society, and the Samaritan Funds established at most of the general hospitals for affording pecuniary or other aid to patients on their discharge. In determining the awards, the paramount claims were admitted of those great hospitals which stand open night and day for the free admission of urgent cases of accident and disease of every kind. And in allusion to the complaint made by the Metropolitan Free Hospital as to the smallness of the sum allotted to it, the report explains that, as the cost of management was ascertained to be rather more than 34¾ per cent. of the amount spent upon the maintenance of the patients, this hospital was actually barred from participation by the instructions given to the Committee; not wishing, however, to act harshly, and being desirous of encouraging an improved course of management for the future, they awarded the sum which has been complained of. The principle on which the awards were made to dispensaries is next explained, and a hope is expressed that eventually a large number of the local dispensaries may be made self-supporting to a great extent, if not entirely "provident dispensaries," through the subscriptions of those who should be in a position to pay a trifle for medical attendance, leaving the hospitals entirely for the class for whom they are intended—viz., the very poor and the afflicted. In conclusion, the report regrets that in some instances collections made on Hospital Sunday were handed over direct to certain institutions, instead of being sent to the Mansion House for general distribution; in every instance where this was done the amount so obtained was deducted from the sum awarded and which would otherwise have been paid in full from the Fund. It however recommends that a circular be sent to the clergy and ministers of all denominations, cordially acknowledging their co-operation, and expressing a hope that in future all collections made on "Hospital Sunday," under the auspices of the Council of the Metropolitan Hospital Sunday Fund, be sent in to the Mansion House for distribution, and asking them to choose another day for obtaining a collection from their congregations for any local or particular charity in which they may be interested. The report concludes with a full statement of the institutions to whom awards were made, with the sums given; but, as we furnished this information to our readers in July last, it is not necessary to repeat it here.

## HEALTH AT THE BRITISH MUSEUM.

About a fortnight ago our contemporary the *Pall-mall Gazette* published a paragraph relating to the death of Mr. Warren, of the British Museum,—so valuable a public servant that his loss was called, and justly, a public misfortune; and our contemporary observed that the misfortune was the greater "because it might very well, if not very easily, have been avoided"; and

in justification of that the paragraph we quote from stated that "Mr. Warren had died of disease, aggravated, perhaps even induced, by the unwholesomeness of the apartment assigned to him for his daily work. Some time ago, when his health first failed, he consulted one of the first physicians in London, who judiciously asked to see the room in which his patient spent the larger part of his time. The rest of the story is so unpleasant that we would fain believe it an invention. But the story runs, truly or falsely, that on Mr. Warren reporting to the chief authority of the Museum the doctor's opinion that his room was unfit for occupation, he was reprimanded for introducing a medical man without the express leave of the said authority. The story goes further than this—much further, indeed,—but whether it be true or not, one thing is certain, that we have lost a valuable public servant in Mr. Warren, as we lost one in Mr. Deutsch, and that though ill-natured people would attribute both these losses, in some degree at least, to the obstructiveness of certain officials, we may safely follow Lord Chesterfield's rule, and never believe more than half what we hear." This paragraph, which was headed "Impossible!" was copied into the *Times* and several other daily papers, but, we suppose because the statement *was* thought to be impossible, it did not seem to create much sensation. The matter does, however, call for investigation, for, if the story above quoted is in any degree accurate, measures of reform are imperatively demanded, while, if altogether false, its falseness ought to be exposed. Moreover, during the last few days some additional remarks have appeared on the subject; and a communication has been made to the editor of the *Times* by Mr. Walter Thornbury on the insanitary condition of the Reading-room and of the Printed Book Department of the Museum. Mr. Thornbury says, "I have long heard complaints from fellow-students of frequent headaches, faintness, and languor towards the end of the day, as the air, originally bad and never renewed, grows thicker and more deleterious. I myself have frequently, during the last five years, felt the same symptoms as my friends, but, being of a robust constitution and much addicted to exercise, I have never thought much about it. A severe illness, however, in the summer of this year, and the recent lamentable deaths of two specially gifted men in the Printed Book Department—the chief rooms of which are sunk many feet below the level of the Reading-room—have opened my eyes to the disagreeable fact that I and hundreds of far better men than myself have been for half their lives labouring to amuse or benefit their fellow-creatures in an atmosphere, to say the least of it, unconducive to longevity. The Reading-room of the British Museum is, in fact, no better than a huge fern-case." We suspect that almost everyone who has had occasion to work for any length of time in the Reading-room has felt, however much he may admire the room, that towards the afternoon the atmosphere becomes very oppressive, and must have wondered whether some better system of ventilating it could not be adopted; but we desire now to call attention especially to the Cataloguing and Transcribing Department, over which the late Mr. Warren presided, and to the Transcribers' Room, as we believe it is called, where he was obliged to be. The part of the building in which this department is placed is, to an unaccustomed eye at least, a most complex and intricate network of iron corridors, galleries, and more or less corkscrew staircases, with rooms opening on to the corridors, and in structure somewhat strongly recalls to mind the engine-room of a great steamship; it is warmed by currents of hot air—as we believe the whole building is,—and if fresh cool air from the outside gains admittance at all it appears to come in strong currents and draughts. Hence the workers in the rooms sit in currents of air artificially heated, and most likely abnormally dry and dusty, without any really fresh air; or exposed to strong draughts of fresh, but, in spring and winter, dangerously cold air. Both are injurious to health, but an alternation of the two—and gasping, parched human nature will at times have fresh air, even though in dangerously cool currents—or an active, gusty mixture of both, produces a maximum of dangerous discomfort. Now, we fully recognise the difficulty of warming and ventilating equably buildings of the construction we have mentioned, but there is no doubt that the present state of things can be—and that ought to be the same as saying it will be—greatly improved. Such a body of able and eminent men as the trustees of the Museum may be depended on to examine closely and thoroughly into the condition of all the rooms, into the alleged frequency of illness among the *employés*, and into the truth or falsity of the rumours that no one dare complain—rumours that are certainly not without the support of what seems to be very trustworthy authority. And further, we feel assured that these high officers—the President of the College of Physicians is, we believe, one of them—will do this work wisely as well as ably. They will visit the rooms without official notice or parade, and visit them when full of workers. They will not fall into the kind of error made when "authorities" visit and "inspect" expectedly the wards of a hospital, and in the presence of resident authorities, sisters, and nurses, with bland benevolence ask a patient here and there "Have you anything to complain of?"

## TRANSFUSION WITH LAMB'S BLOOD.

In the last two years an operation, which was first devised as long ago as A.D. 1667 by Denis of Paris, has been revived, and has, to a certain extent, obtained the assent of the medical profession. We mean the transfusion of the blood of animals into human beings. The author of this revival, Dr. Gesellius, of St. Petersburg, in an elaborate monograph published in 1873, showed that the generally accepted opinion, that the blood of one species of animal is a poison if it enters the circulation of an animal of another species, is altogether fallacious. By numerous experiments he proved that an animal can without previous depletion receive into its vessels an amount of blood from another animal equal to a twenty-fourth part of its own blood, and yet suffer no injury whatever. He further showed that the idea that in transfusion it is necessary to use defibrinated instead of pure blood is quite untenable. Statistics show that in 146 transfusions made with pure human blood sixty-seven patients died; and in 115 made with defibrinated blood seventy-six, or a considerably larger proportion, died.

Moreover, defibrination, according to Gesellius, is not only useless, but absolutely injurious, because small fibrinous clots and rouleaux of blood-corpuscles are always abundantly present in blood which has been whipped and stirred to remove its fibrine, and there is therefore the danger of the production of embolisms by their means. Defibrinated blood may also to a certain extent be looked on as dead, and therefore useless blood, because its corpuscles become, as Heynsius has shown, exhausted in the production of the fibrine; and so the transfused blood will be less and less beneficial to its recipient the more perfectly the defibrinating process has been carried out.

The impulse thus given by Gesellius to animal transfusion has led many to repeat the operation, and it has been performed a few times in England—for example, by Dr. Aveling, and at the German Hospital,—but not so often as abroad, and especially in Germany. The most enthusiastic follower of Gesellius is at present Dr. Otto Hasse, of Nordhausen, who has transfused lamb's arterial blood fifteen times into patients with various wasting diseases, with, as he declares, successful results in eleven of the cases. An account of one patient, Dr. Redtel, who had well-marked consolidation of one lung and laryngeal ulceration from phthisis, was reported by Dr. Williams at the Medical Society of London, on November 9,

1874. The patient's own statement, which rather conflicted with Dr. Hasse's, was to the effect that three weeks after the operation he was gradually becoming worse, and that he had reaped no material benefit from it. Dr. Hasse, on the other hand, declares that he has found transfusion of lamb's blood of the greatest value in consumption, and that all the cases of that disease which have been submitted to it have been remarkably benefited.

Gesellius has also reported a case of transient, and one of apparently lasting, benefit from transfusion of lamb's blood in phthisis. In opposition to these authorities, Fiedler and Birch-Hirschfeld (*Deutsches Archiv f. Klin. Med.*, 1874, xiii.) have lately investigated the subject of animal transfusion in consumption, and arrived at totally different results. Six cases were transfused, partly by Hasse's apparatus (two glass tubes connected by an indiarubber pipe, and filled with a cold solution of carbonate of soda), and partly by Gesellius's (a small glass canula directly connecting the carotid artery of the lamb with the vein of the recipient). In not a single instance did they observe any distinct benefit which could be referred to the transfusion; but, on the contrary, several of the patients appeared to be decidedly injured, and to have their disease aggravated by the operation. Fiedler and Birch-Hirschfeld, therefore, are now strongly opposed to its performance in cases of phthisis. It thus appears that the question of the value of the transfusion of lamb's blood can by no means be considered as definitely settled; and, in spite of the recommendations of Hasse and Gesselius, we should not be surprised if, after all, the operation never found extensive support, or if it soon lapsed into obscurity again. The reaction which follows it is very considerable. There are generally one or more rigors, and the temperature rises considerably for a time; the patients complain of severe dyspnœa, and sometimes of pains in the loins; and vomiting and hæmaturia are not infrequent. The operation is therefore not an innocent one *per se;* and, moreover, in two cases death has been directly ascribable to it. It seems also very doubtful, if not quite improbable, whether the corpuscles of the lamb can ever take on their natural function again in an organism like man's. Landois has shown by most careful and striking experiments (an account of which has already appeared in our columns) that the corpuscles of one animal are dissolved when they are mixed with the blood of a different species; and the occurrence of hæmaturia, or rather of hæmatinuria, in man after lamb's blood has been transfused seems to show that this actually happens. Fiedler and Birch-Hirschfeld, however, deny that any change occurs in the corpuscles of lamb's blood when immersed in human serum, except slight swelling and loss of colour; but Dr. Ponfick (*Berl. Klin. Wochenschrift*, 1874, No. 28) has had an opportunity of examining the blood from a woman recently delivered, who died very soon after a transfusion of lamb's blood had been performed. He found yellowish bodies of various size suspended in the serum, as well as enclosed in the white corpuscle. Their appearance and chemical properties showed that they were fragments of white blood-corpuscles—probably lamb's, as the size of the largest was exactly that of a lamb's corpuscle, and there were no intermediate forms between them and the human corpuscles, which are normally of larger size. Here, therefore, there seems little doubt that destruction of part of the constituents of the lamb's blood had begun to take place.

All things considered, the conclusion forces itself on us that, though it has been proved that transfusion with animals' blood can usually be performed on human beings without much danger, although with a good deal of transient discomfort, yet it is still an open question whether much benefit is to be expected from it. We shall look anxiously for further information on this subject, but at present we rather doubt whether Gesellius is not too hopeful when he closes his monograph with the words: "The transfusion of lamb's blood will inaugurate a new era in medicine—the era of blood-distribution."

## THE ANNUAL REPORT ON THE HEALTH OF THE ROYAL NAVY FOR THE YEAR 1873.

The Annual Statistical Report on the Health of the Navy for the year 1873 has just been made public; and, as notified by the Director-General of the Naval Medical Department, for the first time since these Statistical Reports were published in 1840 the volume is issued within twelve months of the period it embraces. Notwithstanding the prevalence of serious forms of disease in an epidemic form on so many stations and in the irregular force, and the extra amount of sickness resulting from the operations on the Gold Coast, it nevertheless appears that the ratio of invaliding and deaths in the total naval force was only increased to a comparatively small degree. Thus, the ratio of cases per 1000 entered on the sick-list during the year 1873 was 1200·1, of invaliding 37·1, and of mortality 8·3. Compared with the preceding twelve months there was an increase in the ratio of cases to the extent of 29·2 per 1000, in the invaliding-rate of 2·8, and in the death-rate of 0·1. The ratio of mortality in the total force from disease only was 6·0 per 1000, against 5·6 per 1000 in the year 1872.

Amongst the most noteworthy incidents of the year in question was the occurrence of an outbreak of enteric fever in three vessels of the Channel Squadron, supposed to have been occasioned by the use of impure water obtained at Vigo. It was elicited on inquiry that typhoid fever occasionally existed amongst the inhabitants of this town, the brother of our Consul there having fallen a victim to it some eighteen months previously. Moreover, the disease had manifested itself in the crews of the Flying Squadron, which had touched there two months previously, several of the men having fallen ill who had drunk the water, though they had never been on shore. Amongst the inhabitants of the town there would seem to have been no cases of typhoid fever existing at the time; but this is accounted for by the immunity which is observed in individuals who, by habit and by continuance, have accustomed themselves to the use of deleterious substances, whereas the new-comers were speedily affected by drinking the water polluted by excreta thrown broadcast over the land and washed into the river by the rains.

In the face of the revived agitation on the subject of the working of the Contagious Diseases Acts, it is most important to note that the Medical Officers of the Navy continue to bear unqualified testimony to the beneficial operation of their working: when thoroughly carried out, all reports concur in asserting that they are perfectly efficacious, and any apparent failure is satisfactorily traced to their too limited sphere of action. In some of the ships stationed at unprotected ports,—such as the *Achilles* at Portland, and the *Audacious* at Hull,—the most melancholy evidence is afforded of the loss sustained by the service from the Acts not being in operation there. Staff Surgeon George Mason, M.D., of the *Achilles*, reports that twenty-eight cases of syphilis were contracted at Weymouth and Portland during nine months of the year; whilst during three months' stay at Portsmouth and Plymouth (protected ports), although the men had daily leave, only one case of primary syphilis occurred. If further proof were required, it is stated that at the Cape of Good Hope and at Bombay, where Contagious Diseases Acts existed and have been repealed, the lamentable spread of disease in consequence has been very marked; and the same may be said of Port Royal, Jamaica, where, in consequence of some defect in the legislation, the Acts, which had been in operation, were suspended towards the end of the year. At Hong-Kong, on the other hand, where surveillance is thoroughly carried out, disease is reduced to a minimum.

On the Mediterranean station, cholera appeared in a ship stationed in the River Danube, where it prevailed epidemically in some of the towns situated on its banks. Of eight cases, three only presented the characteristic features of the malignant form of disease, and of these only two proved fatal. An epidemic of yellow fever, limited in extent but very fatal in its results, occurred on the North America and West Indies station, chiefly at Port Royal, Jamaica. Of forty-three cases returned as specific yellow fever, twenty-seven proved fatal. The same disease also prevailed on the south-east coast of the American station at Rio de Janeiro, and attacked the crew of the receiving-ship permanently stationed in that harbour; in this case it was not very virulent, only two cases proving fatal.

On the Pacific station, dysentery appeared in an epidemic form in one of the vessels of the squadron. The invasion of the disease was very sudden, and its cause not clearly ascertained; of thirteen cases appearing in this ship, two proved fatal.

On the West Coast of Africa and Cape of Good Hope stations, the operations on the Gold Coast in connexion with the Ashantee War were productive of a large amount of febrile disease and dysentery, and, as a consequence, with a great increase in the invaliding and death rates on these stations. Compared with the preceding twelve months, the increase in the ratio of invaliding was to the extent of 76·4 per 1000, and in the death-rate of 12·5 per 1000 of the force engaged.

The Appendix to the Report contains the usual medical and surgical reports on the different divisions of Royal Marines, the dockyards, naval hospitals, etc., and some papers by Staff Surgeons W. Ross, M.D., J. Mulvany, and P. W. Rolston, which we may take the opportunity of noticing upon a subsequent occasion.

## THE PROPOSED HOSPITAL AT HAMPSTEAD.

Mr. Sclater-Booth, President of the Local Government Board, has declined to interfere in the question now pending between the inhabitants of Hampstead and the managers of the Metropolitan Asylums District Board with respect to the proposed Hospital for Infectious Diseases. In reply to a deputation last week, Mr. Booth stated his reasons for declining to interfere. These reasons were founded upon a statement made to him by the managers of the Asylums District. That statement has since been circulated; and states that soon after the establishment of the Board in 1867 the managers appointed a committee to consider and report on the number of hospitals which it was necessary to erect to enable them to treat the normal number of fever and small-pox patients which they might be annually called upon to provide, and also to report on the best localities for such hospitals. It was eventually determined to provide three permanent hospitals for fever and two for small-pox: one should be situated in the north-west, one in the east, and one in the southern districts of the metropolis. After considerable difficulty they succeeded in purchasing sites in Hampstead, Homerton, and Stockwell which were approved by the Poor-law Board, and which were all fairly close to the positions originally marked out in the several districts. Great opposition was made by the inhabitants of these neighbourhoods, but the Board felt it their duty to carry out the plan, as similar opposition would occur wherever the site might be. The hospitals at Homerton and Stockwell were erected without delay, and plans were proposed for the hospital at Hampstead. The erection of this was deferred for a limited time at the request of the Poor-law Board; and the site remained vacant till December, 1869, when relapsing fever became a serious epidemic in the metropolis, and three pavilions were erected on the ground, to which persons suffering from relapsing fever were admitted. In November, 1870, the epidemic of small-pox became so fatal and alarming that the Hampstead Hospital was opened for the reception of small-pox cases, and during the time it was open for this purpose (till July, 1872) 7352 patients were treated there. Eight fresh pavilions and four wooden huts were erected and furnished during the epidemic. In the summer of 1872 small-pox had so diminished in London that the managers were enabled to dispense with the Hampstead Hospital for the treatment of this disease, and after its complete disinfection they applied to the Local Government Board to allow of its being temporarily used for the care of imbeciles, chiefly the infirm and bed-ridden cases. This was eventually acceded to, with a clear understanding that the hospital was not to be diverted from the purpose for which it was originally intended, and that steps should be taken for the erection of an efficient hospital for any epidemic disease which the managers in the discharge of their duty might be called upon to provide. The statement of the District Asylums Board contains reports from Dr. Lord, the Medical Officer of Health for Hampstead, and Dr. Stevenson, Medical Officer of Health for St. Pancras, which prove that the inhabitants of Hampstead had suffered no injury from the presence of the Small-pox Hospital in that neighbourhood. Dr. C. T. Aveling, also, the medical officer of the City Union at Homerton, states—"I can, however, say most positively that the immediate neighbourhood of these hospitals has not been more obnoxious to contagious disease than any other part of this locality, and I believe that the good folks of Hampstead need not dread the hospital on that score." The subject is of so important a character, and is attracting so much public attention, that we quote the following from the statement of the District Asylums Board in full:—

"Although the statements put forth by the Hampstead Committee of Residents apply rather against the erection of hospitals for infectious cases in general than against the erection of one at Hampstead in particular, the managers desire to make the following observations thereon:—'By the passage of the sick through the streets to the hospital.' No better answer perhaps can be given to this than to quote the words upon this point of the President of the Local Government Board in 1871, when a similar agitation was being raised by the residents of Hampstead,—viz., Mr. Göscheu desires me to add that he has been advised, on medical authority, that there is not a particle of evidence to show that the conveyance of small-pox or fever patients in carriages is attended with the slightest danger to those persons who are living in, or passing along, the streets through which the patients are conveyed.' Moreover, the removal of the hospitals to a greater distance from London would only add to the evil, if any, by increasing the number of streets through which the patients would have to be carried. And with the truth of these observations the managers entirely concur. There can also be little doubt that the prejudice against the removal of patients to hospitals at a long distance from home would materially check the removal of cases, and thus tend to increase the spread of an epidemic. The land at Hampstead, although in the parish of Hampstead, is on the confines of the parish of St. Pancras: it lies back at least 100 yards from the main thoroughfare, from which it is practically invisible, while a high wall separates it from the Fleet-road, which is only a thoroughfare for pedestrians. The situation is admirably adapted for the reception of sick persons from the parishes of St. Pancras, Holborn, Islington, Marylebone, and Paddington, as well as from Hampstead itself; and the managers, many of whom know the district well, do not hesitate to say that they believe it would be impossible to find another site equally eligible in the north or north-western district, and within the metropolitan area—it being absolutely necessary that an infectious hospital should be within the metropolitan drainage district and water-supply; certainly no site could be obtained which would not meet with the strongest opposition from the intended neighbourhood. If, however, the agitation now made by certain persons in Hampstead were successful, the managers would feel not only that it was hopeless to look for any other site, but they would have no confidence that they should ever be able—should, unfortunately, the

necessities of the public health require it—to build on the two pieces of reserve ground held by the Board in the western and south-eastern districts of London; and in addition to this there would no doubt be strong pressure for the removal of the existing hospitals at Stockwell and Homerton."

All impartial persons must admit that there is much cogency and practical common sense in the statement of the managers of the District Asylums Board. While we sympathise with the inhabitants of Hampstead, we cannot regard their complaint as unanswerable after the statement which we have placed before our readers. That they have exaggerated the evils to which they think themselves exposed we think there can be no doubt.

## THE WEEK.

### TOPICS OF THE DAY.

A GOOD deal of excitement still appears to exists in the Woolwich garrison, caused by the epidemic of diphtheria now so seriously prevailing at the huts, or soldiers' cottages, on Woolwich Common. Several fresh cases were reported the latter end of last week. They were at once sent to the Herbert Hospital, Shooter's Hill, and placed in the special ward prepared for their reception. No cases whatever have occurred in Woolwich, where the largest number of married soldiers' quarters are situated. These quarters are of modern construction, having good ventilation and drainage.

The chief delinquents in the sale of articles of adulterated food in Portsmouth appear to be "the better class of shopkeepers." Mr. G. Turner, the Public Analyst for the town, in his last report to the Town Council, states that "the prosecutions have all been against the better class of shopkeepers. The magistrates have always been willing to give them a case; they have a union composed of grocers to support them; yet they have never hazarded an appeal."

It appears from the report for the past quarter of Dr. Taaffe, Medical Officer of Health for Brighton, that diarrhœa was the zymotic disease which was most fatally prevalent in the borough, and caused sixty-three deaths. Of these, forty-seven occurred in children under one year, and ten in children aged one and under five, while only six were of persons over five. Notwithstanding this increased mortality among children from this disease, the health of the town was in a very satisfactory state. Dr. Taaffe remarks that his "own experience as physician to the Children's Hospital bears out that of others, that numbers of infants are literally killed by improper feeding. This evil exists in every grade of society, but principally among the poor. The great majority of the deaths from infantile diarrhœa took place in the poor neighbourhoods. The prevention of infant mortality is a very difficult subject to deal with. The establishment of *crèches* or day nurseries would doubtless do good in this direction; as also the frequent distribution among the poor of printed directions as to the proper mode of feeding infants. Deducting the deaths from diarrhœa, we had a very small degree of zymotic mortality during the last quarter, only amounting to an annual rate of 1·7."

Last week about 120 gentlemen met at dinner at Willis's Rooms to commemorate the election of Dr. Hardwicke to the Coronership for Central Middlesex. The proceedings passed off satisfactorily; and, with Dr. Richardson in the chair, it may be supposed that the evening could not fail to be a most interesting and, we may say, a most instructive one.

### VIVISECTION AT NORWICH.

THE action brought at Norwich, by the Society for the Prevention of Cruelty to Animals, against four medical men of that city, who had apparently assisted Dr. Magnan, of Paris, in making some experiments on living dogs, and of which action we gave a short notice last week, has ended in the dismissal of the case as against the four Norwich defendants. M. Magnan did not appear; and the magistrates, after a long inquiry, came to the conclusion that the complicity of the four defendants present in the proceedings of M. Magnan was not proved; but they held, by a majority, that the Society had been justified in instituting the proceedings, and they therefore refused the defendants their costs. It will be remembered that the experiments were made in order to show the difference between the effects produced by alcohol and by absinthe on the living organism, and to demonstrate that absinthe may excite epilepsy; and the real point in question was whether or not the experiments were unnecessary and cruel. Very contradictory, and some decidedly sensational, evidence was produced, and we cannot say that we are inclined to quarrel with the decision of the magistrates. We think that the manner, time, and place of performing the experiments were ill-chosen and injudicious; and, further, we are not at all satisfied that such a demonstration of the poisonous effects of absinthe was either necessary or useful. We most entirely acquit the actors of every idea of cruelty, and credit them fully with the belief that they were engaged in demonstrating in a scientific manner an important and useful fact—the special poisonous qualities of absinthe; but we think the whole proceeding was an unhappy mistake.

### DEATH OF THE PRINCIPAL MEDICAL OFFICER OF THE BOMBAY PRESIDENCY.

DEATH has been very busy lately amongst the senior ranks of the Medical Department of the Army. But a short time has elapsed since we had to record the demise of Surgeon-General Beatson, the Principal Medical Officer of her Majesty's British Troops in India; only the other day we had to chronicle the loss of Deputy Surgeon-General Barclay, the Head of the Statistical Branch in London, and of Surgeon-General John Bent, the Principal Medical Officer at Aldershot; and it is now our melancholy duty to announce the death of Surgeon-General R. J. O'Flaherty, C.B., the Principal Medical Officer of the British Troops in the Bombay Presidency, which is reported to have taken place at Bombay on the 8th inst. Mr. O'Flaherty entered the service as Assistant-Surgeon on January 9, 1835; was promoted to the rank of Surgeon in May, 1845; Surgeon-Major, 1854; Deputy Inspector-General, July, 1859; and Inspector-General, 1872. Surgeon-General O'Flaherty served in the Crimea from September 17, 1854, for which he held the medal and clasp, fifth class, of the Medjidie, and the Turkish medal.

### MEDICAL STUDENTS IN FRANCE.

REFERRING to the Medical Faculty of Paris, the *Liberté* states there are 5000 students. The curriculum is generally six years, four years of which are devoted to obtaining the usual promotions (*inscriptions réglementaires*). During the two last years the student undergoes his examination for the doctorate. Those who succeed in obtaining a supernumerary berth at the hospital sometimes have to work nine years before gaining that degree. The Medical Faculty this year granted about 500 diplomas. In the Pharmaceutical Faculty the curriculum is generally three years. The last return showed 700 students. The nine other Medical Faculties in France scarcely reach the figure of 3000 students—Bordeaux and Toulouse 500 to 600 each, Montpellier 200, Nancy 300, etc. Amongst the 8000 of the *étudiants* matriculated at the Paris University, about 600 are foreigners, mostly Spaniards, especially in the Medical Faculty.

### THE MODEL HOUSES ASSOCIATION.

THE improvement of the dwellings of the industrial poor, and the diffusion of sanitary knowledge amongst that class on a scale which the subject demands, are, no doubt, two most important questions. These questions were ably discussed

at a meeting of the Model House Association held last week in Lower Seymour-street, Portman-square; the Earl of Aberdeen presided. A resolution proposed by Sir Thomas Chambers, seconded by Dr. Douglas Hale, and carried unanimously, embodied the urgent necessity of rigidly enforcing such statutes bearing upon the sanitary condition of both the urban and rural population as are now or may hereafter be enacted; that adequate remedies should be demanded for the reduction of the frightful mortality arising from preventable diseases which not only sweep away multitudes of constitutionally healthy men and women, but leave still vaster numbers to linger on with health shattered and insufficient for either the duties or enjoyments of life. Resolutions were also adopted urging that ladies should be encouraged to join the Association.

### APHASIA PRODUCED BY PRESSURE ON THE BRAIN IN THE COURSE OF MENINGITIS.

In the *Centralblatt für Chirurgie*, No. 36, is the report of a case of so-called acute pachymeningitis, in which Stassin observed on the third day of the disease the disturbance of speech characteristic of aphasia, accompanied by no impairment of the intellect. The patient could answer all questions which required a simple "Yes" or "No" correctly, but if an answer of several words were required, he could only bring out, with evident distress, the following words, "*reçu, versement, merci.*" A remarkable point in the case was the almost complete return of the power of finding words, accompanied by a slight amelioration of the symptoms lasting for three days. After an abundant hæmorrhage from the nose, aphasia became complete again, and the patient died delirious after the occurrence of spasm on the right side of the body, and later general convulsions. The cause of the aphasia was supposed to be the pressure exerted on the brain by the meningeal exudation which was found at the autopsy.

### WATER-SUPPLY TO THE METROPOLIS.

A report has been laid before the St. George's, Hanover-square, Committee of Works from Dr. Corfield on the water supplied by the Chelsea Waterworks Company. Dr. Corfield found on analysis that the water was flood-water imperfectly filtered. There was too much organic matter in it, which was too fine to settle. The Company have written a letter to the Committee to the effect that they were considering the acquisition of land for storage purposes, and were duplicating their filtering area. A copy of Dr. Corfield's report was ordered to be forwarded to the Government Water-Examiner, Major Bolton.

### HEALTH OF THE METROPOLIS.

The deaths registered last week in London were 2082, showing an excess of 356 on the average numbers, and an annual death-rate of 32 per 1000. This excess was chiefly due to the fatality of diseases of the respiratory organs. The deaths from scarlet fever further declined last week to ninety-one. The Asylums District Hospitals contained 238 scarlet fever patients on the 12th inst., against 243 in the previous week.

### THE DRAINAGE OF DUBLIN.

The Lord Lieutenant of Ireland, in reply to a deputation which waited on him on Monday for the purpose of obtaining Government interference in reference to the drainage of Dublin and the purification of the Liffey, said he understood it was probable a private Bill would be introduced next session transferring from the Corporation their powers under the Main Drainage Act.

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There has been another outbreak of the fever epidemic at Darwin. Several fresh cases were reported on Monday and Tuesday last.

## SOME INQUIRIES INTO THE CAUSES OF GOÎTRE AND CIRCUMSTANCES UNDER WHICH CRETINISM IS DEVELOPED.

By J. B. WILSON, M.D.,
Surgeon to 11th (Prince Albert's Own) Hussars.

Bhagsoo, Dhurmsala, a hill station of the Punjaub for British troops, is situated upon a spur of one of the lower ranges of the Himalayan mountains at a height of about 6100 feet above the sea-level, in a position of about 76° longitude, and 32° north latitude.

The whole district is hilly; we look below upon the Kangra valley, which stretches from east to west, and is in this neighbourhood about 3000 feet above the sea-level; we see above in a north-easterly direction successive ranges of the Himalayan mountains varying in height from 10,000 to 18,000 feet. The highest range visible, which bounds us on the north at a distance of about six miles, is of primary formation, and consists of granite and gneiss. Except when covered with snow, as it is during the greater part of the year, this range is quite bare, no soil resting upon its stony surfaces. The lower hills, immediately beneath and intervening between the main visible range and this station, are for the most part of sandstone of varying degrees of hardness, and are covered with soil and vegetation, chiefly Himalayan oaks, rhododendrons, and fir trees. The valleys between these hills are rich in deep alluvial soil, largely mixed with pulverised stone. Through the sandstone hills, which are chiefly formed of rich red clay, overlaid with a vegetable mould, are numerous extensive veins of marble-veined lime-stone, and valuable seams of fine slate, and these stretch to the Kangra valley, below which, at a radiating distance of about ten miles, is the local boundary point in that direction of the present investigation.(a)

The primary source of the water-supply is the main visible range; it finds its way to the valleys by streams, whose beds are cut out of, and seen in great numbers along, the slopes of the successive hills already referred to.

Amongst the native inhabitants of this district "goître" abounds. The remark of Dr. Parkes in his Manual, "that there is want of chemical analysis" in support of the hypothesis that there is no relation between the hardness of water and goître, prompted me, with such unusual opportunities at hand for making investigations in this important and interesting subject, to analyse specimens of the drinking-water obtained from this district within a radius of ten miles.

The preliminary examination of the first six specimens gave negative results, when testing for organic matter, lime, magnesia, iron, etc., and the colour, taste, and smell also indicated more than usual purity; with the object in view, I considered that these results dispensed with further examination except to determine the total hardness of each specimen. The preliminary examination of the last three specimens indicated a small amount of lime, confirmed afterwards by the soap-test. The colour, taste, and smell indicated purity of the specimens, and there was no reaction produced when testing for organic matter.

*Table of Chemical Analysis of Water.*

| No. | Date. | Description. | Source. | Result. |
|---|---|---|---|---|
| 1... | July 3 | Snow-water | From a distance of about 10,000 feet above the sea-level | = 1·73 grs. of total solids per gallon of Clarke's scale. |
| 2... | „ 3 | Stream-water | Collected in Bhagsoo | = 4·45 grs. ditto. |
| 3... | „ 29 | „ | Procured at Bhagsoo after filtration | = 3·5 grs. ditto. |
| 4... | „ 30 | „ | From Seco, a village about 2500 feet above the sea-level, and seven miles distant | = 5·25 grs. ditto. |
| 5... | „ 30 | Spring-water | From a spring at Dhur, a village about 3000 feet above the sea-level, and five miles distant | = 2·8 grs. ditto. |
| 6... | „ 30 | Stream-water | From Chatroo, a village about 2500 feet above the sea-level, and six miles distant | = 6·30 grs. ditto. |
| 7... | Sept. 25 | Spring-water | From Grow, a village about five miles distant, and 3000 feet above the sea-level | = 13·3 grs. ditto. |
| 8... | „ | „ | Ditto | = 9·1 grs. ditto. |
| 9... | „ | „ | Ditto | = 10·5 grs. ditto. |

(a) I have to thank the Rev. J. H. Hocking for some geological information concerning this district.

I have also to submit the analyses of 100 cases of goître, taken indiscriminately from among natives residing within a radius of ten miles from this place, with regard to the following points:—

1st. Occupation.—Labourers, 52; shoemakers, 9; musicians, 9; cloth-printers, 6; beggars, 4; glass-blowers, 3; bread-makers, 3; silversmiths, 2; merchants, 2; no occupation, 2; policeman, 1; barber, 1; basket-maker, 1; carpenter, 1; overseer, 1; butcher, 1; housewives,(b) 2: total 100.

2nd. The average number of pulsations per minute of the 100 cases examined, arranged according to the following ages:—Between the ages of seven and ten there were 3 cases, and the average radial pulsation per minute was 101⅓. Between the ages of eleven and twenty there were 26 cases, and the average radial pulsation per minute was 93⅓. Between the ages of twenty-one and thirty there were 47 cases, and the average radial pulsation per minute was 86$\frac{5}{23}$. Between the ages of thirty-one and forty there were 14 cases, and the average radial pulsation per minute was 84½. Between the ages of forty-one and fifty there were 4 cases, and the average radial pulsation per minute was 84. Between the ages of fifty-one and sixty there were 4 cases, and the average radial pulsation per minute was 92.(c) Between the ages of sixty-one and eighty there were 2 cases, and the average radial pulsation per minute was 70.

3rd. The time of life that the disease made its appearance: in 30 cases it appeared during infancy and childhood; in 42 cases it appeared between the ages of ten and twenty years; in 17 cases it appeared between the ages of twenty-one and thirty years; in 6 cases it appeared between the ages of thirty-one and forty years; in 4 cases it appeared between the ages of forty-one and fifty years; in 1 case the time of appearance was not known.

4th. Concerning the transmission of the disease from one parent, or both, to offspring: (*a*). In 16 cases the parents, one or both, had been the subjects of goître. (*b*). In 9 of these cases the subjects were of dull intellect; in some cases approaching cretinism. (*c*). In 4 of these the subjects were complete cretins. (In 2 of these cases it was stated that the mothers had very large goîtres.) (*d*). In 3 of these the subjects were not of dull intellect. (*e*). There were five cases of dull intellect in which neither parent had suffered from goître.

The results of the chemical analysis seem to strengthen the theory that it is not absolutely necessary for people to drink hard water before they can become affected with ordinary goître; indeed, the extreme purity of some of the specimens examined, and which are and have been daily consumed by those goîtrous people for years, leads one to conclude that the disease is not connected with the composition of the water at all.

The classification of the cases according to occupation shows an excess of the disease to occur amongst those whose daily duties are most laborious; for we see 52 per cent. of the subjects of it to be labourers.

It will be well to define the term "labourer" or "coolie" as it is applied in this classification. His duties are either to carry heavy loads strung upon his shoulders and back, or, in company with others, to carry for long distances in a dooly (an eastern conveyance borne by men) European passengers.

The labourer or coolie in this district is often employed in carrying and cutting stones, building walls, and cultivating land. I wish to mention the attitude that he assumes when engaged in any occupation of this kind. He is rarely seen in the erect posture unless conveying loads; all other duties he pursues in a position that is peculiar to eastern countries.

The soles of his feet rest upon the ground, and the nates are brought into close proximity to the heels, by the thighs being flexed on the body, and the calves of the legs being applied to the posterior surface of the thighs. In this position also the shoe-maker and other artisans pursue their work, for chairs and stools are never employed by them, even when at rest. With regard to the time of life that the disease usually appears, it will be seen that in 42 per cent. of the cases it first made its appearance between the ages of ten and twenty—a period including the time of life when active labour is first pursued; also the era of life when the constitution receives the new impulse and modification of puberty. The time of life that I found next in order susceptible to the disease was the unresisting period of infancy and childhood.

(b) There were altogether 8 females; but when pursuing occupations, they were returned accordingly in the list with the males.

(c) In one of these cases the pulse was 100, in another 92, per minute.

It will be seen, from the classification of the frequency of the arterial pulsation, that the average results of the cases, registered according to age, invariably showed a marked excess in frequency. There is great difficulty in obtaining precise information from a native, but when it could be obtained, I always found that the subjects of goître were liable to palpitation of the heart.

This associated condition I invariably found amongst Europeans here resident who were the subjects of ordinary goître. As far as it goes, the last classification shows a tendency for a degenerate form of intellect to be present in the offspring of goîtrous parents, and that cretinism does not exist except in the offspring of parents who are the subjects of this disease. Before I venture to submit some conclusions and facts in support of them, based upon these investigations, I must mention the very universal frequency of this disease in hilly and mountainous districts. The purity of the water consumed by the inhabitants of this district, amongst whom goître has existed so long, and is daily reappearing, naturally leads one to conclude that the disease is not connected with the composition of the water at all. There is strong evidence in favour of the theory that ordinary goître, like the exophthalmic variety, is entirely a circulatory disease, and that its tendency to occur is encouraged, and in some cases induced, by the following conditions when the constitution is in a reduced state, and thus favourable to the invasion of this disease:—

1st.—Active occupation, necessarily so much more severe in hilly districts, seems to influence the production of this disease to a great extent, as is shown by its so frequent occurrence in those who lead a laborious life, or pursue active duties in a constrained position, and by the comparative immunity there is in those oppositely circumstanced, except they are in a relaxed and depressed state of health. The effects of violent exercise upon the circulation and bloodvessels generally are well known, and it is only necessary, on this point, to refer to the relation of the thyroid gland to the large vessels of the heart, its remarkably large supply from them, and its dense capillary structure and consequent ready liability to enlargement from the dilatation of its vessels, under the conditions produced by violent and prolonged exercise.

2nd.—The effect of elevation from the sea-level upon the circulation of people residing in high mountainous districts, seems to be favourable to the production of goître, and in some cases the chief cause of the disease; hence the more frequent occurrence of the disease in such districts. The frequent complaints of people after arriving from the plains at a high elevation, of palpitation, sense of giddiness, the frequent bleeding at the nose, and the invariable increase of the frequency of the pulse, are all symptoms which point to a diminution of force upon the balance of the circulation as the cause of them. Nor is the loss of balance difficult to account for, when we remember that at the sea-level there is a pressure of 15 lbs. on the square inch, and, calculating that the atmosphere reaches forty-five miles around the earth, the loss of pressure resulting from this elevation would be equal to about 6·06 oz. avoirdupois on the square inch, or a little more than one ounce loss of pressure on each square inch of the body per every thousand feet ascended. The pressure would be a little less, though, for this calculation, contrary to accepted facts, supposes the forty-five miles of air to be of uniform density.

The increase of force the circulation would receive by the diminution of atmospheric pressure, resulting from ascent within the limits of a certain height, cannot then, I think, be denied. I will relate some cases in which the disease seems markedly to have been produced by residence in an elevated locality alone.

Mrs. S., in November, 1866, went to reside in Mussoorie, a hill station of Bengal, between 6000 and 7000 feet above the sea-level, and remained there until November, 1867. In the month of July, 1867, during some slight indisposition, a goître appeared; it was about the size of a large walnut. It did not increase in size at all, but continued that size until Mrs. S. went down to the plains again. She remained in the plains until August, 1873, and during the whole time no more enlargement of the gland was noticed by her. She visited this stat on in August, 1873, and before she had resided here a month found that the gland was rapidly getting bigger. It is now (September, 1873) the size of a small apple, and rather painful. She is subject to attacks of intermittent fever; she is now free from the fever, but the pulse is 108 per minute, and she often suffers from palpitation. There is no exophthalmic appearance.

Mrs. B., a sergeant's wife, states that, in 1860, when she was

aged eight years, she went from the plains to Sanawur Lawrence Military Asylum, a sanitarium situated about 6000 feet above the level of the sea. Before she had resided there a year, a small goître appeared, and has remained the same size ever since. She herself says that she is quite well, the pulse is 100 per minute, and she often suffers from palpitation. There is no exophthalmic appearance. At this asylum every precaution was taken with the water, which was always boiled and filtered before use.

Juhar, a labourer, aged twenty-five years, came from Grow to Dhurmsala a year and a half ago: there is a difference in the height of about 3000 feet between these places, the latter being the higher. After arriving he took to new employment, much more laborious than that he had pursued below. After a residence of six months the goître first appeared.

Grousam, a beggar, aged fifty years, first came to this district from the plains eight years ago; shortly after his arrival the goître began to appear.

3rd.—The increased frequency of the circulation invariably noticed in the subjects of this disease is further evidence of its resulting chiefly from a more active force conveyed to the circulation and so to the thyroid gland, when the resistance necessary to overcome that force does not exist in it: in a similar way as, in one subject, aneurism takes place as the result of violent exercise or from constrained positions, or as, in another, enlargement of the spleen, when subjected to a determination of blood, may take place.

4th.—The fact that the periods of life when this disease most frequently occurs are those when the circulatory powers are in their greatest activity is not, I think, of trivial import in support of the theory here submitted as the primary cause. There is the testimony too that, when the forces upon the circulation resulting from violent exercise in hilly districts and residence at a great elevation from the sea-level appear to be the chief causes necessary for the production of this disease, those engaged in the more active life are the more subject to it—viz., the male population; whilst in my experience concerning the occurrence of the disease in the plains, where it is of infinitely less frequent occurrence, the subjects more liable to it are females, whose constitutions are usually more relaxed and unresisting than those of males, and whose circulation, moreover, is subject to more variation of force, consequent upon the changing phenomena of menstruation and pregnancy.

5th.—If the conclusions arrived at from these inquiries into a limited number of cases hold good generally, the prevalence of this disease, once recorded to have taken place in a prison at home, may have arisen, not from the water that the prisoners drank, and which was blamed as the cause, but from the excessive exercise at the treadmill, or some other violent labour, and this, too, whilst the inmates were on prison rations.

In conclusion, and with regard to cretinism, the question naturally arises, whether it is found to be generated only in the offspring of goîtrous parents, under which circumstances it has been invariably found to occur amongst the subjects of it in the cases of goître forming the subject of the present paper?

Punjaub, India.

## JOHN HUNTER, F.R.S.

We now bring to a close the correspondence of the great physiologist, which has appeared from time to time in this journal, by the publication of the following letters from the collection of autographs in the possession of Mr. Charles Hawkins, a former member of the Council of the College of Surgeons, and of Mr. T. M. Stone, so long connected with the same institution. It is interesting to observe that of the letter No. 3 several copies appear to have been written—probably for circulation amongst the members of the House Committee of St. George's Hospital, as Messrs. Hawkins and Stone have each one in their several collections, only *signed*, however, by Hunter. That in possession of the latter gentleman is increased in value by the following testimony to its genuineness by one well able to judge: "The above signature is the veritable autograph of the great surgeon.—Richard Owen.—Coll. Chir., March 21, 1850."

[No. I.]

"To Messrs. Gunning, Walker, and Keate.

"Gentlemen,—As the time approaches when you propose referring to the Governors of St. George's Hospital my determination respecting the money arising from the Surgeons' pupils, I beg leave to acquaint you that I entirely agree with you in the mode you have proposed—a mode I did not myself adopt, as it took from you the power of acceding to my proposal, and made me appear to the Governors as an accuser; but when you bring it before them I shall meet it fairly and very willingly.

"I am, Gentlemen, your most obedient Servant,

"Leicester-square, Feb. 8, 1793. John Hunter."

The following circular was sent to the Governors:—

[No. II.]

"St. George's Hospital, February 13, 1793.

"My Lord,—A Special General Board having been called, to meet upon the 1st of March next, to consider of and to determine on a letter addressed by Mr. Hunter to the other Surgeons of the Hospital, wherein he appears to reflect upon their conduct, and objects to account for the profits arising from the general attendance of the pupils at the Hospital; and endeavours to break through a custom which is common to other hospitals, and which has subsisted in this from its first establishment to the present time. The Surgeons request the favour of your attendance that day, and have the honour to be, with all possible respect,

"My Lord,

"Your Lordship's most obedient humble Servants,

"J. Gunning.
Wm. Walker.
T. Keate."

[No. III.]

"Sir,—My three colleagues having opposed a resolution of mine respecting the pupils who enter under me at the Hospital, and having stated that there is a custom against it, as an argument in their favour, I beg leave to submit to you the enclosed reasons for having deviated from that custom; and I take the liberty to observe that the custom which they say has subsisted so long makes no part of the established laws of the charity, and has been gone into without the consent of the Governors. I have transmitted to you these reasons for your deliberate perusal, that you may be enabled thoroughly to understand them when they are read before the General Court.

"Your most obedient Servant,

"Leicester-square, Feb. 27, 1793. John Hunter."

[No. IV.]

"To the Chairman of the Special General Court,
St. George's Hospital.

"Mr. Chairman,—Having on most occasions been desirous of promoting the surgical education at the Hospital, my name not appearing to the present proposals may give an idea of my being less zealous than usual on that subject. I beg leave to say that this is not the case; but not having been consulted by my colleagues who drew them up, nor the Committee by which they were approved, my assistance has been supposed unnecessary.

"They certainly appear to me in many respects very incompleat, and in some altogether impracticable; but if they meet with the approbation of the Governors, it is my business, as a servant of the charity, to do the duty of my situation.

"Your most obedient Servant,

"Leicester-square, June 14, 1793. John Hunter."

Hunter suddenly expired the following October.

Our readers will no doubt feel obliged by the permission of Messrs. Hawkins and Stone to publish these interesting documents of the renowned founder of the Hunterian Museum in the pages of the *Medical Times and Gazette*.

We have lately had occasion more than once to notice with satisfaction the determination of the metropolitan magistrates to enforce compliance on the part of recalcitrant offenders with the requirements of the Sanitary Acts. Mr. Ingram last week fined Edward Fuelling, of 124, High-street, Notting-hill, £5, in addition to 40s. for one day's default, and costs, for refusing to comply with an order of the Vestry to construct a drain into the sewer in front of his premises.

# FROM ABROAD.

## Limitation of Meat Diet in Diabetes.

Professor Bouchardat, who has written so often and so well upon the dietetic regimen in diabetes, has contributed to the *Bulletin de Thérapeutique* (November 30), of which he is now one of the editors, a paper having the followiug title: "On the Necessity for Moderating the Amount of Meat or other Azotised Aliment iutervening in the Regimen of Glycosurics." If, he observes, we carefully interrogate diabetic patients who have passed their fortieth year, not contenting ourselves with vague replies, but calling in the balance to our aid, we find that most of them consume more than an average quantity of meat, fish, eggs, cheese, etc.; and, guided by the general result of the observations made during the last twenty-five years of his practice, he advises, as a thing of the greatest importance, moderation in the use of these articles of diet. A recent fact confirms this indication: During the rigours of the siege of Paris, he found the sugar disappear from the urine of three patients who were constrained to an almost absolute abstinence from meat, and whose entire alimentation was far from being sufficient.

When it becomes necessary to greatly diminish, in the regimen employed, the proportion of strongly glycogenic aliments, these have to be replaced, and at first we naturally think of meat for this purpose for two reasons. First, it contains but little of immediately glycogenic principles, or those which it contains yield but small quantities on their transformation; and secondly, diabetics are almost always in a weak condition, some being anæmic and exhausted. Following generally received ideas, we are apt to believe that by forcing a quantity of meat, rich in blood, we can re-establish the strength and restore the blood and other liquids and the solids to their normal composition and activity. We too readily forget two great hygienic principles—(1) that alimentation is only really reparative when it is complete; and (2) that the excess of an immediate alible principle, in relation to others which are necessary for the reparation of losses, is rather hurtful than useful. Nor can it be too frequently repeated that it is not the aliments that are taken which add to the strength and repair loss, but only those of them that are utilised.

This reserve in alimentation, which the author regards as of such importance, can only be brought about by time; and a man accustomed to too abundant repasts should only be *gradually* accustomed to a more moderate procedure, which slow mastication will aid him in attaining. Two great difficulties daily occur in the hygienic regulation of the regimen of the glycosuric—viz., the providing a complete alimentation for them; and the avoiding the prescription of aliments which are too rich and condensed, in order that they may not experience that feeling of "stomachal vacuity" which is so distressing to them. We must bear in mind the mass as well as the quality. It is evident that we cannot suppress the calorifying elements and replace these by plastic material, for in order to constitute a complete alimentation we must, as far as possible, maintain a physiological equilibrium.

"Feculents and fatty bodies are the principal aliments of calorification in the ordinary regimen; but while, in order to cause sugar to disappear from the urine, it is indispensable to almost completely displace the feculents by fatty bodies, as I have long since indicated, yet it must not be forgotten (1) that fatty bodies of equal weight possess a far greater calorifying power than do feculents; and (2) that the apparatus destined to emulsionise and absorb these fatty bodies has but a limited activity. For this reason it is required that the stools should be frequently examined in order to ascertain that these fatty bodies are absorbed. Fatty bodies that may be employed are very various, the animal fats occupying the first rank—as butter, bacon, the fat of pork, beef, mutton, horse, etc., goose, duck, etc., the marrow of the ox and of other animals, the oils of cod, shark, of ox-heel, horse, etc. Vegetable fats also offer very precious resources, as in the various oils—as olive, poppy, walnut, sesame, beech, cold-pressed hempseed, turnip, colza, etc. Cacao butter also may render good service. When the fatty bodies are not taken alone, they can be associated with almost all our aliments; meat, fish, eggs, etc., are rendered more tasty by their judicious admixture. As it is of importance to form an alimentary mass in sufficient quantity to counteract the feeling of stomachal vacuity which is produced by the substitution of fatty bodies for feculents, it is desirable that a sufficient quantity of articles of diet that give rise to a notable residue should be introduced daily into the diet. It is in this point of view that bran bread and bran and gluten biscuits render such good service; but the alimentary vegetables occupy the first rank for their utility in glycosuria. They render alimentation complete, and combat this feeling of vacuity upon which I have insisted, and furnish residues which are favourable to the regularity of the stools."

## The Resignation of Professor Chevreul.

Some of our younger readers may not be aware of the remarkable scientific position held by this veteran *savant*, who, publishing his first paper more than sixty-eight years ago, which treated on the analysis of fossil bones with remarkable precision, has, from that time to this, kept not only abreast of, but even in advance of, the progress of chemical science, completing at his now advanced age a series of recondite investigations, which, in the words of so competent a witness as M. Dumas (on the occasion of a presentation of the jubilee medal to M. Chevreul by the Académie des Sciences in 1872), no other chemist would have had the courage to approach. Some vast practical results have ensued from the researches of this "Father of Chemistry," as he has been reverentially called; and especially from those relating to the philosophy of colours, and the composition of the fatty acids of which stearic acid is the type. From these last has sprung up the now gigantic manufacture of composite candles, scarcely probably appreciated in an age that has never known the horrors of tallow, with its accompaniments of snuffers and extinguishers. Among other posts which he most efficiently filled, M. Chevreul was Director of the Musée d'Histoire Naturelle, and his cool and admirable conduct during the two sieges of Paris, by which much of the peril which menaced the establishment in the Jardin des Plantes was averted, was universally admired at the time, and afterwards formally recognised by the Académie des Sciences. His resignation was announced a short time since, and various reasons were assigned for his having made it and refusing to withdraw it. M. Alglave, however, in the *Révue Scientifique* for November 28, furnishes an authentic statement on the matter.

It seems that after the death, two years since, of Prof. Duméril, who held the chair of the Zoology of Fish and Reptiles in the Museum, the professors of the Museum, consulted by the Minister as to the choice of a successor, declined recommending anyone for the post, as none of the candidates seemed to them possessed of a sufficiently established competency in this especial portion of zoology. The Minister was therefore asked to delay the declaration of the vacancy, and in the meantime to entrust the delivery of the lectures for a year to M. Dareste, Professor of Natural History at the Faculty of Sciences at Lille. This proposition was carried only by a majority of one, the other professors voting in favour of M. Vaillant, formerly a member of the Faculty of Sciences of Montpellier and since attached to the Ecole des Hautes Etudes. But at the Museum the most important part of the functions of a professor does not consist in lecturing; his chief work consisting in preserving, classifying, and increasing the zoological collections—a labour which exacts very special knowledge. M. Dareste, who was charged with the delivery of the lectures, had nothing to do with the numerous collections and the menagerie of reptiles appertaining to the chair; the management of these was confided to M. Emile Blanchard, Professor of Entomology, who had published also some important works on fishes. A short time after, M. Vaillant, assisted by Dr. Sauvage, was entrusted with the reclassification of the collection of fishes, which during the siege were consigned to the cellars in some disorder. This labour is now terminated to the great credit of M. Vaillant, for the collection of fishes is now the best classed in the Museum, and in this respect has no rival in Europe. The course delivered by M. Dareste in 1872-73 had very few auditors, and several of the professors of the Museum begged M. Blanchard to exchange his chair of Entomology for that of Fishes and Reptiles. As, however, his promotion had not been unanimously approved of, he declined complying with the request, but still retained the management of the collections. M. Dareste was again charged with another year's

lectures, which had no better success than their predecessors. M. Chevreul then, as Director of the Museum, proposed to the Minister of Public Instruction that the next year's course should be entrusted to M. Vaillant, in order that he in his turn might be able to show what he could do. The Vicomte de Cumont replied by a somewhat singular letter (written, it is said, by his private secretary, the son of Prof. Chauffard, who was obliged subsequently to resign in consequence of the odium which a jobbing promotion into the Legion of Honour gave rise to), in which the Minister declared he could not allow this kind of *concours* which was proposed, the result of which, being uncertain, might damage the professorial reputation of M. Dareste and prove troublesome to the Minister himself in providing for him now he had left his chair at Lille. The Minister, therefore, called upon the professors to indicate to him a candidate not merely to deliver the lectures, but to fulfil all the duties of a professor. The letter gave reason to believe that M. Dareste, supported as he is by a great number of extra-scientific and even princely influences, would be nominated whatever other candidates might be proposed, and upon its reception M. Chevreul sent in his resignation, which he has subsequently refused to retract.

## REVIEWS.

*Report on the Census of the Madras Presidency*, 1871; *with Appendix containing the Results of the Census arranged in Standard Forms prescribed by the Government of India.* By W. R. Cornish, F.R.C.S., Surgeon-Major, Sanitary Commissioner for Madras. Madras: Government Gazette Press. 1874.

In undertaking to draw up a report on the Census of the Madras Presidency, Mr. Cornish tells us that he had two courses open to him—either to publish the tables with a bare summary of the contents, or to endeavour to put the results before the public in a readable form. Confidence in his experience of statistical work impelled him to adopt the latter plan. He knew that bare figures are never read or digested by the general public; so, in the work before us, whilst it contains every numerical datum which the most veracious statistician could ask for, we find matter which makes it most readable as well as most instructive.

He begins by giving a history of the process of taking the Census itself, in which, indeed, the Madras people were no novices, for during the whole of this century a Census had been taken at intervals, more or less regularly, and of late in quinquennial periods. Great, however, are the difficulties which still beset all attempts at accurate enumeration, and more especially of women. In all the quinquennial Census returns from 1851 to 1866, the male population was estimated as greatly in excess of the female. So constant was this excess that it almost came to be regarded as an established fact; and in the North-Western Provinces of India, where the same excess appeared, not only was it accepted as a fact, but an ingenious physiological theory was invented to account for it. But Mr. Cornish says that the more nearly does an Indian Census attain to accuracy, the more closely does it appear that there is nothing peculiar in the proportion of the sexes, and that if there are 104 to 106 women to every 100 men in Europe, the same proportion is also found in India, at least wherever the female children are not destroyed after birth. "The truth is," says Mr. Cornish, "that the great bulk of enumerators have been singularly obtuse in comprehending the fact that counting the females was of any consequence in Census work. To understand how this is, we must take into account the low estimation in which females are held in this country, and also the reticence of the people in all matters connected with their female relatives. In the registration of births and deaths the same error obtains. The birth or death of a female child is considered such an insignificant matter, especially amongst the lower classes of the population, that a great number escape registration." But in districts where the Census work was well done the female population was invariably found in excess of the male. In fact, the general character for accuracy of the Census in any district might be judged of by the way in which the proportions of the sexes have been recorded.

Another difficulty arose from the fact that the enumerators, if Brahmans, would shirk the coming into contact with low-caste people; and it is significant that, in certain districts where all the village accountants are Brahmans, the males are returned in excess of females. Yet another difficulty lay in the nature of the *hill tribes*—the remnants of aborigines who have been ousted from the plains by successive immigrants, and driven to a precarious existence in the hills. Of most of these it is recorded that, when kindly treated and employed, they readily adopt the habits of civilisation. But of some it is said that in their wild state they are a wretched set of people, small in stature, and attenuated in frame; with no regard for life, they see no difference between killing a sheep and a man, and they will kill a sleeping man to take his clothes. They are decreasing; for murder, disease, and civilisation are rapidly thinning their ranks.

But we must not linger too long on the introduction to Mr. Cornish's work, in which, under the guise of a statistical blue-book, he furnishes one of the most readable and interesting summaries possible of all that is to be known about Southern India as a whole, and of each of its districts separately. It contains the cream of all that is known of the physical geography, the political history, the ethnology, the sociology (pardon the use of this horrid word), the manners and customs, languages, religion, habitations, employment, education, viability, caste, and religion of that enormous territory of 139,698 square miles, with a coast-line of 1600 miles, and 31,500,000 of people, which constitutes the Presidency of Fort St. George, Madras. If it were not a blue-book published by Government for the initiated, but a hand-book in the possession of some clever publisher, it would be placed in the hands of every candidate for employment in that Presidency—whether soldier, civilian, merchant, planter, or missionary.

Of the whole population (says Mr. Cornish) 28,863,978 are Hindus, 1,857,857 Mahommedans, 490,299 native Christians, 14,505 Europeans, 26,374 East Indians or Eurasians, 21,254 Jains; and 6910 not distinguished as to their nationality or religion. There are six well-defined languages, of which the Dravidian rank thus:—Tamil is spoken by 14,500,000; Telugu by 11,500,000; Canareu by 1,500,000, and Malayalanu by 2,500,000 (in round numbers); whilst Tulu, Ooriza, and the languages of hill tribes are spoken by about another 1,000,000.

The Hindus form about 92·3 per cent. of the entire population. Mr. Cornish, whilst unable to say in what proportion they are mixed with Aryan blood, denies that the bulk of the people can be Aryans. The Mussulmans form 5·9 per cent. of the entire population, and abound chiefly in the old seats of Mussulman government. They are not all of pure Maghul or Arceb or other invading blood, but have been reinforced by many proselytes from Hinduism, disgusted and persecuted by reason of their caste. "Islam is ever active in seeking for proselytes," and on the western coast the Mussulman population is fast increasing. The native Christian population numbers nearly half a million of souls, Syrian, Roman, and Protestant. They especially abound in South-Western India, where they have existed centuries before European intercourse was established. The Europeans (14,505), do not include those important divisions of the Madras army stationed in Mysore, Hyderabad, Nagpore, and Pegu. The Eurasian or East Indian population (26,374) is very small considering the constant intermarriage of Portuguese, Dutch, French, and early English settlers with the women of the country during the last 370 years. They are not increasing; and Mr. Cornish, as a disciple of Robert Knox, looks with little hope on the permanence of a hybrid race. The Jains are the *débris* of the once powerful Buddhists.

On the subject of the ages of the population, Mr. Cornish points out that the relative proportion of the young is much greater in India than in Europe. Below the age of twenty the Madras population is 7 per cent. in excess of that of England and Wales; from twenty to forty the proportions are almost exactly the same; from forty to sixty, Madras only shows 13 per cent., whilst England numbers 17. Whilst in England more than 7 per cent. are above sixty, in Madras only 3·149 per cent. Thus, says Mr. Cornish, the people arrive early at maturity, swarm early from the parent hive, and die prematurely.

We shall, in all probability, take another opportunity of pointing to some of the interesting matters contained in this Census Report. We cannot take leave of it for the present without noting the graceful manner in which the author speaks of "the diligent and invaluable aid of his wife," who has spared no trouble or exertion in the task of lightening and sharing in the labours of her husband. Mr. Cornish is not

the only medical writer who has had domestic obligations to be grateful for. But the Indian Medical Officers are a picked body of men, and their wives are worthy helpmates.

# FOREIGN AND COLONIAL CORRESPONDENCE.

## AMERICA.

Philadelphia, November 5.

Professor Erichsen in the United States — Bellevue Hospital and the Medical College—The Marine Hospital Service of the States.

International matters being still in my thoughts, an allusion to the recent visit paid us by the distinguished surgical teacher, practitioner, and author, Professor Erichsen, comes in natural sequence; for, while his presence here afforded us an opportunity of paying the well-earned tribute to his services and abilities, the reception assumed at every phase an international aspect, which plainly said how closely the two countries are united in the ties of professional brotherhood. It may not be known to some of your readers that Erichsen's valuable work on Surgery has passed through several editions in this country, is largely used as a text-book in our medical schools, and is assigned an enviable and lofty position in the esteem of the profession, shared only by the excellent work of Professor Gross on the same subject. I was reminded also of his authorship of another smaller *brochure* by listening to the remarks of Judge Brady at the New York banquet, the work being in the hands of all our judges, and comprising suggestions as to the methods of recognising antagonistic medical testimony in legal cases. Many of the representative men of the profession in one or two of the large cities, who would have been glad to welcome him, were denied this pleasure through the exclusiveness or want of proper discrimination on the part of self-appointed committees. At the banquet given in his honour in Philadelphia, Professor Gross presided, and after formally welcoming the guests of the evening, he alluded to the distinguished consideration which had been shown to himself by the English members of the profession, the memory of which attentions he would cherish gratefully to the day of his death. He claimed that these courtesies tended more to encourage and establish good feeling between the two nations than all the conventions of the Geneva Arbitration. Professor Erichsen acknowledged with great feeling the honours of which this reception constituted the culminating point during his visit to this country. He had long desired to make this visit, as his relations of intimate friendship with distinguished Americans in London had drawn him to examine and to have great respect for our institutions. He recognised no such differences between the two countries as are said to exist. He found the same independence and energy of thought, self-reliance in action, firmness and frankness of character, as marked his own countrymen—he felt that it was *cœlum non animum mutant, qui trans mare currunt*. He saw that the members of the profession drew their inspiration from the same sources, for even over the door of the great hospital of the city he saw, not the effigy of the American Warren, or of Mott, or of Mutter, but of that man who was *facile princeps* of British surgery, Sir Astley Cooper. He closed his acknowledgment of the toast with a graceful compliment to the country—that "greater Britain which one has to cross the ocean to see," which was here extending its courtesies to him. The Faculty of the Medical Department of the University of the City of New York gave him a splendid farewell banquet on the last evening but one before his departure homewards. This was doubtless the most elaborate entertainment extended to him during his visit to this country, and was a tribute gracefully offered on the part of men of distinguished eminence in the various walks of medical practice and literature. Dr. Pardee, of the University, presided; and near him were seated Drs. Hammond, Willard, Parker, Darling, Gross, Sims, and other medical and surgical celebrities. "Health, long life, and prosperity" were drunk by those assembled to the guest of the evening. Professor Erichsen, in response, said that he could with difficulty find expression for the feeling he entertained in view of such an honour as was now given him. Speaking of hospitals in America, he said that England could take many lessons from this country. He was rejoiced to see so much attention paid here to ventilation and cleanliness in these institutions, and he would carry back with him important hints on hospital construction. He confessed that, with all the improvements in the treatment of cases in the wards of hospitals in England, the results were not yet what they should be; it was difficult to get out of the old routine over obstacles which had been perpetuated through a long series of years. Several of our hospitals had impressed him as being almost absolutely perfect in their general sanitary arrangements. Doubtless his visit was a surprise to him, whatever his anticipations may have been, and we hope it will be also a pleasant memory. In the valuable remarks which he made at Bellevue, after Dr. Sayre's clinical lecture on anchylosis, he confessed in a very manly way that some of the points urged by that excellent surgeon had impressed him with their novelty and force, especially the view that a marked increase of pain from manipulation in anchylosis was a pathognomonic indication that the fibrous rather than the osseous structures were more seriously implicated. We also had the pleasure in Philadelphia of seeing at the same time Mr. Robert McDonnell, the Irish surgeon, well known also for his contributions to the literature of surgery.

I am led by the results of recent political controversies in this country to refer to a similar change in the medical politics of New York. Our general elections in the various States have had the effect of breaking up powerful "rings," as they are called, or combinations of political managers and wire-workers—generally unprincipled and unscrupulous men—who manipulate the whole party machinery. A somewhat similar reversion took place a month or two ago in New York city in regard to Bellevue Hospital and the College attached to it. The faculty of the latter has always controlled the Hospital, its lecture-rooms being only a few yards distant; and the clinical advantages of this proximity have been widely used as a special card for the College. It never seemed fair that an institution under the control of the city should be given up wholly to the interests of a private corporation, however efficient and meritorious the latter might be; and it was not a matter of any surprise when recently the wards of the Hospital were placed under the charge of a divided staff of medical officers, who represented other schools as well as those of the Bellevue Hospital Medical College.

The Marine Hospital Service of the United States has very recently assumed an independent position and importance. Although marine hospitals have been in existence for many years, the Service was so recently organised into a distinct bureau that the first annual report was made only about two years since. From this and subsequent statements presented by its very able and energetic supervising surgeon, Dr. John M. Woodworth, we glean many interesting particulars of the needs of this Service, and its growth through a myriad of difficulties into its present honourable position. The first step taken was the passage of a law by Congress in 1798 imposing a tax of twenty cents per month on seamen employed in American vessels engaged in the foreign and coasting trades; and out of the fund thus created the President of the United States was authorised to provide for the temporary relief and maintenance of sick and disabled seamen in hospitals, any surplus to be used in erecting marine hospitals, directors of which were also to be appointed by him. The demands for relief soon far exceeded the resources at command; hence restrictions were imposed, and many chronic or incurable cases were excluded from the benefits of hospital treatment. The administration of the fund on such economical principles worked the greatest hardships in the new cities and towns which sprang up on the banks of the western lakes and rivers. Those who engaged in the commerce of such rivers were subjected to very pernicious climatic changes. The numbers who perished in the long-descending voyages of the flat-bottomed boats on the Mississippi and its tributaries, in summer and early autumn, were very great. Nothing was more common than for two out of five hands on those boats to die; and sometimes the whole crew perished from disease, and the boat with its cargo was left deserted. The steamboats brought up a great number of deck passengers, many of whom died on board, while others were left sick at the river towns. The cholera epidemic of 1832 and 1834 added greatly to the catalogue of ills. Moved by a feeling of common humanity for the large class of our young men who had embarked in these daring, precarious, and toilsome interests, and for the sufferings attendant upon such an improvident life, whole communities, both on the seaboard and in the interior districts, petitioned Congress for increased

facilities for their relief. From one port it was reported that no better place could be offered to sick seamen than the warehouses and deserted tenements along the wharf; from another, that they had to be sent to the city almshouse, which was also connected with a penitentiary for common vagrants and petty convicts; and from another the sad story was told that seamen sick with various diseases—cholera, small pox, etc.—were often forced promiscuously into the same chamber, where the dying and the dead were alike neglected. Congress therefore passed an Act, in 1837, for the selection and purchase of sites for marine hospitals on the Mississippi and Ohio rivers and Lake Erie, and these were soon constructed. Altogether, thirty-two marine hospitals have been established since the organisation of the Service in 1798, at an aggregate cost of $3,214,518 95c., ten of which are in present use. In addition, there are thirty-nine hospitals, at thirty-six different ports, which are owned by private or corporate parties, and devoted to the same objects. There are also thirty-four of the smaller ports where relief is furnished in extemporised hospitals—usually private dwellings. Medical inspectors of marine hospitals are stationed at New York, San Francisco, New Orleans, and Chicago, four of the largest ports in America. An Act, passed in 1870, increased the tax from twenty to forty cents per month, the same to be collected from each seaman employed on registered, enrolled, or licensed vessels of the United States; and it also provided for the appointment of a Supervising Surgeon of the Marine Hospital Service of the United States. During the fiscal year ending June 30, 1873, hospital dues were collected in 127 different Customs districts of the United States, the sums so collected aggregating $335,845 95c. Hospital relief to the extent of 421,375 days was furnished to 13,529 seamen in 91 Customs districts. The American Merchant Marine is estimated in round numbers at about 113,000 souls, comprising the officers and crews of 26,853 vessels, of 3,721,425 tons burthen. It may be a matter of interest to state that "the Marine Hospital Bureau is the first organisation in this country to adopt the Provisional Nomenclature of the Royal College of Physicians, and so to aid in the attempt, approved by the American Medical Association at its annual meeting in 1873, and by the American Public Health Association at its session in May, 1873, to establish an international and standard nosology." I notice that the Supervising Surgeon in his report particularly favours constructing all the hospitals of wood, and destroying them after ten or fifteen years, both as a sanitary and an economical measure, and building new ones in their stead. The prime object to be attained, he states, is to secure favourable results in the treatment of diseases and injuries—an object which has been, in the past, subordinated to architectural design, and frequently to the favouring of certain localities.

## GENERAL CORRESPONDENCE.

### NAPIER'S STONE-EXTRACTOR AS A RETENTIVE CATHETER.

LETTER FROM MR. J. WARRINGTON HAWARD.

[To the Editor of the Medical Times and Gazette.]

SIR,—I should be glad to call attention to the usefulness of Mr. Napier's "stone-extractor" as a retentive catheter. Those who saw Mr. Napier's demonstration of this ingenious instrument at the Medical Society must have observed the accuracy with which the smooth convolvulus-shaped expansion in which the instrument ends was applied to the surface of the bladder, so that there were no projections or rough surfaces for any urinary deposit to collect upon. The catheter itself is wonderfully soft and smooth, and the expansion at its end seemed just what was required for preventing it slipping from the bladder when introduced. I recently had an opportunity of testing its efficiency for this purpose, having had occasion to retain a catheter in the bladder of an old gentleman who was partially paralysed and who had a much enlarged prostate. The winged and the hooked catheters I had found useless, as, owing to the restlessness of the patient, they were speedily expelled. I then thought of the stone-extractor, and Mr. Napier at once most kindly placed his instruments at my disposal. In spite of the enlargement of the prostate, I introduced the catheter quite easily into the bladder of my patient, who retained it without the least discomfort until I withdrew it three days afterwards. The catheter on its withdrawal was quite as clean as when introduced, and seemed to me by far the best retentive catheter I had ever used. I have not yet had an opportunity of using the instrument as a stone-extractor, but, from my experience of it on the dead subject, I confess that, had I the misfortune to pass a sharp fragment of stone, I should greatly prefer its being enfolded in the "convolvulus" to its making an exit along the unprotected urethra.

I am, &c.,

J. WARRINGTON HAWARD.

5, Montagu-street, Portman-square.

## REPORTS OF SOCIETIES.

### SOCIETY OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, NOVEMBER 22.

Dr. LETHEBY, President, in the Chair.

AT the Council meeting, which was held previous to the general meeting of the Society, Dr. Dudfield drew attention to the by-laws for regulating slaughter-houses recently issued by the Metropolitan Board of Works. In consequence of a communication received from the Local Government Board, requesting the Society to suggest any alterations to these by-laws as published, Dr. Dudfield moved certain amendments, some of which were adopted. These amendments referred chiefly to the mode of constructing the building so that efficient light and ventilation might be obtained, and that the floor and walls should be of asphalte or some other impervious material, and level with the adjacent street; and also that slaughterers of cattle should be required to give due notice of diseased animals being taken to a slaughter-house. With these few alterations the Society decided to express a general approval of the by-laws, although the suggestions of the Society of Medical Officers of Health with regard to the abolition of private slaughter-houses had not been approved by the Metropolitan Board of Works.

A letter was then read from the Registrar-General, commenting upon the severe criticisms of Dr. Letheby upon certain supposed fallacies connected with the estimation of the relative salubrity of towns, etc., by comparison of the death-rates.

Dr. LETHEBY explained that it was much to be regretted that any personal animus should be shown in the matter, especially because the object of the paper in question was very much misunderstood. We can no more do without the death-rates than can an army on the march do without a record of the mortality of the troops, but they must also have a statement of the wounded and sick. If the public were to suppose that the death-rate is the only means of estimating the relative sickness, it would be very erroneous.

The secretaries were directed to reply to the Registrar-General's complaints, and to request him to reconsider his request for the withdrawal of his name as an honorary member of the Society.

Drs. Fox, Harrison, Wilson, Parsons, Jepson, and Jones were unanimously elected members of the Society. Drs. Morgan and C. B. Fox were to be ballotted for at the next meeting.

It was proposed by Dr. DUDFIELD, and seconded by Mr. LIDDLE, that this Society offers its cordial congratulations to Dr. Hardwicke upon his appointment to the ancient and honourable office of Coroner for Middlesex, and earnestly hopes that he may long be spared to undertake the duties connected with that office.

Dr. BUCHANAN, in proposing a vote of thanks to Dr. Letheby for his opening address, stated that he had been moved to study for his own purposes the questions raised in the President's address, and having examined the statistics of two portions of England—viz., those of the South-Eastern Sanitary Districts, and of North Lancashire—as to the comparative mortality in them of various ages, he had arrived at conclusions very similar to those of Dr. Letheby. These statistics were arranged in three tabular sheets, which Dr. Buchanan had printed and distributed to the members of the Society.

Mr. LIDDLE moved that the Council should frame some concise rules for the guidance of the managers of district and board schools in checking the spread of infectious diseases, with suggestions for isolating those infected, and recommending the more general use of disinfectants.

Dr. TRIPE then proceeded to read his paper, of which this is an abstract :—

ON THE STATISTICS OF DEATHS FROM EPIDEMIC DISEASES IN ENGLAND AND THE METROPOLIS DURING THIRTY YEARS.

In a paper read before the Association in March last Dr. Tripe had pointed out that the crude death-rate of a district was not to be taken *per se* as exact evidence of its salubrity, because the density of the population (and especially over-crowding of dwellings), the comparatively large or small number of inhabitants under one year of age, as well as of those between fifteen and forty-five years and above sixty-five years of age, the relative wealth of the inhabitants, and especially the number of servants, greatly modified the death-rate, irrespective of varying sanitary conditions. These considerations, however, did not, with the exception of increased density of population, much affect the investigation, as the death-rates had all been calculated in the same way, and the comparison was not between many districts which vary in all the particulars just enumerated, and perhaps in many others, but between the mortality from epidemics in the population of England for thirty years, and for London during a rather longer period. Small-pox, measles, scarlet fever (including diphtheria), whooping-cough, fever (which includes typhus, typhoid, and simple continued fever), and diarrhœa were the diseases selected for this statistical inquiry, as being the only stationary diseases of the kind—cholera being sporadic in its attacks,—and also for the purpose of ascertaining how far the number of deaths from these diseases, in a given population, and in certain periods, varied as regards the total number of deaths. Dr. Tripe also wished to ascertain, as far as possible, to what extent the main drainage scheme and other sanitary works which have been carried out in the metropolis had affected the death-rate, as he had long been of opinion that sanitary measures produce less effect in reducing the death-rate from these epidemic diseases than from other causes, although many eminent authorities have been so fully convinced to the contrary as to have termed them "preventable diseases." The epidemic diseases which appeared most under the influence of sanitary measures were—typhoid fever, which should not exist in an epidemic form, and should rarely occur even as a sporadic disease, as it is less infectious than any other fever; and diarrhœa, as, although it never occurs as an epidemic, except in very hot weather, it appeared to depend to a certain extent on bad drainage, etc. Dr. Tripe did not undervalue the power which well-directed sanitary measures exert in affording a higher vitality to those living within their influence, and consequently diminishing the sickness and increasing the longevity of a population; but he protested against such a statement as that which had been made by the Registrar-General in the forty-third number of the weekly returns for 1874—"That wherever the mortality exceeds seventeen in the thousand there is much sanitary work to be done." Surely we were not justified in asserting that the death-rate which would be a normal one for Liverpool, Bradford, or Hull would also be normal for Portsmouth, or even for London, where the conditions of the population are so different! Was a Medical Officer of Health to be branded with inefficiency if the death-rate of his district exceeded the number so peculiarly fixed upon by the Registrar-General? Dr. Tripe did hope that enough had been written on the subject to prove that there cannot be one uniform standard of mortality for every place in these islands, whether they be large or small, poor or rich, sparsely or densely populated, but that all now admitted that the death-rate must vary with the different social conditions of the population, and with the peculiarities of the locality in which they live, irrespective of its sanitary state. After these preliminary remarks, Dr. Tripe proceeded to analyse the tables which he had constructed for the purpose of illustrating the results of his observations on the spread of epidemic diseases. He divided the thirty years from 1840 to 1869 into three decennial periods, and showed from the tables that there were in the first period on an average 396·2 deaths in England and 448·3 in London from epidemic diseases in each 100,000 of the population, being an excess for London of 52·1. In the second period there were on an average 390·1 deaths in England and 455·6 deaths in London, being an excess of 65·5 deaths per 100,000 persons living for each year. In the third period the mean number of deaths from these epidemics in England was 401·0, and in London 463·9 per 100,000 population, being an excess for London of 62·9. These were very striking figures, and proved that the decennial rate of deaths from epidemic diseases varied but little in England and in London—less, indeed, in London than the mortality from all causes. The mortality from these diseases had increased in England and in London during these thirty years, being greatest during the last decennial period. On the other hand, the mean annual mortality per 100,000 inhabitants from all causes had decreased for all England to a slight extent, but to a much larger extent for the metropolis; the numbers in the first period being 2257 for England and 2516 for London, being an excess of 259 for London; whilst in the second period the number for England was 2220 and for London 2362, being an excess of only 142 for London against 259 during the first decennium. In the third period of ten years the mean mortality had risen to 2234 per 100,000 of population for England, and 2427 for London, showing an excess for London of 193, which was greater than that of the second decennium, but considerably below that of the years 1840-49. The death-rate for all England was less in 1860-69 than in 1840-49 by 23 deaths in each 100,000 inhabitants, whilst in London it was 89 less; which was satisfactory as showing that, in spite of increased density of population, London had a lower death-rate than previously. These facts were, perhaps, best shown by a comparison of the number of deaths from all causes and also from epidemics in London to 1000 in England. In 1840-49 there were 1114 deaths from all causes in London to 1000 in England, in 1850-59 there were only 1064 to 1000, and in 1860-69 there were 1086. As regards epidemics in 1840-49 there were 1113 in London to each 1000 in England; in 1850-59 there were 1161 in London, and in 1860-69 there were 1156 in London to each 1000 in England; so that whilst there were 5 less per 1000 from epidemic diseases, there were 22 more by deaths from all causes than in 1850-59. These showed more exactly than the previous figures the excess of deaths from epidemic diseases, and from all causes, in London as compared with all England.(a) It was somewhat singular that six diseases which caused death in such different ways, and which were affected in such an opposite manner by atmospheric changes, should produce in an average of ten years closely corresponding death-rates. When we considered that the mortality from whooping-cough and measles depended to a great extent on sudden alterations in the temperature of the air, or still more on a long-continued period of cold, whilst the death-rate from diarrhœa agreed so precisely in summer with temperature, that the weekly number of deaths in London could be calculated within a few if the mean temperature were given, we should scarcely have expected so close a correspondence. When we looked at the number of deaths from small-pox in England during thirty years, and saw that it varied between 1628 in 1862 and 23,126 in 1871; at the deaths from measles, which oscillated between 4895 in 1853 and 11,309 in 1868; at those from scarlet fever, which numbered only 13,594 in 1861, and as many as 36,962 in 1863; and the much greater range in the mortality from diarrhœa, which was as small as 2482 in 1838, 3220 in 1841, and rose as high as 29,821 in 1868,—we should have thought it almost impossible that an average varying so little as had been shown could ever have obtained for each decennium. The only inference Dr. Tripe could draw from these facts was, that as these diseases, except diarrhœa, spread from person to person by a specific poison, they were less affected by the various agencies which are brought to bear upon them than were the other ordinary diseases of mankind. This opinion he had always held; he considered it most erroneous to term these epidemic diseases preventable to the exclusion of all others. There was no doubt that small-pox—if vaccination were efficiently performed on all the infants born—was preventable to a very great extent; that measles, scarlet fever, whooping-cough, and typhus might be considerably checked by strictly enforced isolation of all patients. As, however, in large cities it was impossible to carry out strict isolation, except at a cost which the heavily taxed ratepayers could scarcely be expected to defray, we must at present be content with carrying out precautionary and sanitary measures to the best of our ability, and at as small a cost as is possible compatible with efficiency. Comparing the death-rates from these epidemic diseases and from all causes, and observing the slight increase in those from epidemics, as well as the absolute decrease in deaths from all causes; and

(a) We cannot quote further from the statistical part of this paper. It is impossible, in our limited space, to do full justice to these researches. We believe, however, it is Dr. Tripe's intention to publish his paper in full.

considering that London has increased enormously in population, and consequently in density of population, in these thirty years, we ought to be well satisfied with our position. The social condition of the people had not varied during these years so as to influence the death-rate to any marked extent, because what had been gained by better wages of the working people had been lost by citizens and others living outside the metropolis, instead of at their places of business as they did a few years since. The power of resisting disease was greater now than in former years, except amongst those who crowd too much business or too much pleasure into a given time. This improvement was due, to a certain extent, to the better sanitary government of the metropolis; further progress in the same direction would probably lead to greater length of life and greater freedom from illness. At the same time, as small-pox, measles, scarlet fever, diphtheria, whooping-cough, and fevers each spread by means of a specific virus, it could not be expected that ordinary sanitary measures could effect much reduction in the number of attacks or in the death-rate. Isolation of the patient, destruction of infecting matter in his excreta, clothes, and bedding, appeared the only means on which one could rely for preventing their spreading. Dr. Tripe had written this paper for the purpose of ascertaining what is at present the normal death-rate from epidemic diseases for the metropolis, because it was evident that, if an excessive rate should prevail in any district for a long period, which could not be accounted for by the unusual density of the inhabitants or other local causes, bad sanitary arrangements would most probably be ascertained to be the cause. It was somewhat too early to estimate the value of sanitary work, as the present race of grown-up persons were born under different arrangements; and therefore we must probably under-estimate the beneficial effects which must result from well-directed and energetic sanitary works.

In commenting upon the paper, Dr. Buchanan stated that Dr. Tripe seemed to ignore the means of largely controlling the spread of epidemic disease by isolation in hospitals. All means of preventing these diseases should be considered when discussing such a subject.

Dr. Tripe explained that so long as children suffering from fever were allowed to run about, or were kept in the same rooms with healthy children, it would be impossible to reduce to any considerable extent the spread of epidemics amongst the poor at their own homes.

Dr. Carpenter considered that epidemic diseases were not preventable except by isolation. He had found that prolonged residence in impure air enfeebled the vital powers and made the individual more susceptible to the fever-poison, and also the disease under such circumstances assumed a more virulent form. It was probably due to the existence of foul cesspools at the Deanery of Carlisle that the Archbishop of Canterbury's children, enfeebled in health, were unable to combat successfully the fever which caused their death. If the hygienic conditions were favourable, probably scarlet fever would be as harmless as chicken-pox.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 8.

C. J. B. Williams, M.D., F.R.S., President, in the Chair.

### On the Laryngeal Symptoms which Result from the Pressure of Aneurismal and other Tumours on the Vagus and Recurrent Nerves.

Dr. George Johnson read a paper on the above subject, of which the following is an abstract:—The main object of the paper is to demonstrate and explain the fact that bilateral spasm and bilateral palsy of the larynx may result from the pressure of an aneurism or other tumour on the vagus nerve of one side only. Reference is made to two cases of aneurism—one of the innominate, published by Dr. Baümler in the twenty-third volume of the *Pathological Transactions;* the other of the aorta, by the author, in the twenty-fourth volume of the same *Transactions*. In both these cases the fact of bilateral palsy of the larynx was ascertained by laryngoscopic examination during life. In both the post-mortem examination was made with the expectation of finding that the recurrent nerve on both sides was injured. In both it was found that the vagus and recurrent on one side only had been compressed by an aneurism. In both cases the laryngeal muscles on both sides had undergone atrophic changes. In both cases the aneurism had compressed not only the recurrent nerve, but also the trunk of the vagus; and it is believed that, while the laryngeal muscles on one side were paralysed by direct pressure on the recurrent, the paralysis on the opposite side was the result of a centripetal irritation of the vagus acting on the nervous centre, and through it upon the nerve-supply to the laryngeal muscles on the other side. The palsy on one side was direct, on the other reflex. The muscles of the larynx are in a pre-eminent degree bilateral in their action. This bilateral action, according to Dr. Broadbent's hypothesis, is associated with a close connexion between the nerve-nuclei of the two sides, and Dr. Lockhart Clarke (in the *Philosophical Transactions*, 1868, part 1) has demonstrated three sets of decussating fibres connecting the nerve-nuclei of the spinal accessory nerves. The motor fibres of the laryngeal branches of the vagus being derived from the spinal accessory, the intimate union of their nuclei of origin explains the bilateral action of the laryngeal muscles. The commissural union of the nerve-nuclei of bilaterally acting muscles explains certain pathological facts:—First, the fact that these muscles are not paralysed in cases of hemiplegia from lesion of one hemisphere of the brain; second, that in cases of unilateral spasm (hemispasm) the bilaterally acting muscles are implicated in the spasm. The normal motor force in the first cases, the abnormal in the second, passes from the commissural centre to the nerves and muscles on both sides. Third, if the nerve-nuclei and their connecting fibres become diseased, bilateral palsy will result. Pressure on one recurrent nerve, which is an afferent motor nerve, will cause direct unilateral palsy of the larynx, but cannot cause either bilateral spasm or bilateral palsy. Pressure on the trunk of the vagus, involving its afferent fibres, may cause both bilateral spasm and bilateral palsy of the larynx. Reference was made to some experiments performed by Dr. Rutherford on rabbits. A portion of the anterior wall of the trachea was cut away, so as to expose the glottis from below; the superior laryngeal nerve was divided, and its central end faradised: this caused strong bilateral spasm of the glottis. An impression conveyed by the incident nerve to the centre was reflected through the efferent nerves to the muscles on both sides. This illustrates the mechanism of bilateral spasm from unilateral irritation. The principle is the same whether the morbid motor influence pass downwards from one hemisphere of the brain or upwards from one afferent nerve to the common centre of the two pneumogastric trunks. When the recurrent nerve was divided, and its lower end faradised, or when the lower end of the divided vagus was galvanised, the result was unilateral abduction of the vocal cord in consequence of the stimulus acting on the efferent fibres of the recurrent. The results of these experiments are essentially the same as those which had been previously obtained by others, in particular by Rosenthal ("Die Athembewegungen," Berlin, 1862), and by Waller and Prevost (*Archives de Physiologie*, tome iii., 1870). The long-continued irritation of the trunk of the vagus by the pressure of an aneurism cannot be imitated by any artificial means, but the general result of these experiments is to support the theory that continuous irritation of the trunk of one vagus may, through its afferent fibres, so disturb the common centre of the two vagi as to cause either bilateral spasm or bilateral palsy of the larynx. Reference is made to facts illustrating the influence of a peripheral irritation in exciting, through a reflex nervous influence, pathological changes in distant parts. In cases of traumatic tetanus, a peripheral irritation may not only excite a general muscular spasm, but also serious structural changes in the spinal cord. A foreign body in a wound on the cheek excited facial neuralgia, facial palsy, and trismus. The passage of a calculus through the ureter may excite not only pain but inflammation in the testicle; irritation of one eye by overwork at the microscope or by a foreign body may set up a reflex inflammation in the other eye. The more intimate the nervous connexion between two parts, the greater is the probability that disease in one may excite disease in the other. How great, then, is the likelihood that irritation of the trunk of one vagus will gradually excite functional disturbance and even structural change in the nervous centre and in the associated nerve on the opposite side. Pressure on one recurrent nerve would never cause serious dyspnœa, but pressure on the trunk of one vagus, by exciting either bilateral spasm or bilateral palsy of the larynx, is a frequent cause of urgent and even

fatal dyspnœa. The dyspnœa which is the result of laryngeal spasm occurs in paroxysms—it comes on and passes off with equal suddenness; while the stridor and dyspnœa which result from laryngeal palsy come on more gradually and are more persistent. The laryngoscope is essential for the exact diagnosis of these painfully interesting cases. Reference is made to the case of a young man who died in a paroxysm of laryngeal obstruction from what was supposed to be acute laryngitis. The case occurred long before the laryngoscope had been invented. After death the larynx was found healthy, but a cancerous tumour in the chest had implicated the left vagus and recurrent nerve. In another case, hoarseness, cough, and stridor were at first supposed to depend on laryngitis, but the laryngoscope showed a healthy larynx. An aneurism was suspected, and soon caused death by hæmorrhage into the œsophagus. The aneurism (of the aorta) had compressed the left vagus and recurrent. With reference to the question of tracheotomy, the main point is to distinguish between laryngeal palsy or spasm, the result of pressure on the vagus, and narrowing of the trachea by the direct pressure of an aneurism. In the first class of cases tracheotomy may afford great temporary relief, while in the second the operation would be worse than useless. It was found that when a rabbit is under the influence of chloroform no laryngeal spasm was excited even by faradising the central end of the superior laryngeal nerve. This result is analogous to the influence of chloral hydrate in preventing or lessening laryngeal spasm. In the course of the experiments upon rabbits it was found that after division of the superior and inferior laryngeal nerves on both sides the animal closes the glottis during the act of deglutition. Dr. Rutherford suggested that this closure of the glottis might be effected by the constrictors of the pharynx; and after dividing the constrictors on one side, so as to suspend their action, the glottis remained quite motionless. It appears that during the act of deglutition the pharyngeal constrictors have the power of pressing together the arytenoid cartilages, and thus closing the glottis. This experiment is confirmatory of Longet's observations made in the year 1841 (*Archives Générales de Médecine*, tome xii., 1841).

Dr. Douglas Powell observed, with reference to bilateral spasm from unilateral nerve irritation, that Dr. J. Reid many years ago had obtained symmetrical spasm of the glottis on subjecting one recurrent nerve of a larynx recently removed from a dog to prolonged contact with the galvanic forceps; and that M. Krishaber had remarked that the arytenoideus—the only single muscle of the larynx—would contract equally if either one or both nerves were irritated. The contraction of this muscle with those of one side of the larynx might serve to close the glottis. Dr. Powell had, however, so far as he could remember, in his experiments on a dog, obtained results similar to those of Dr. G. Johnson and others. He wished, however, to draw attention to the fact that the same phenomena were not observed in experiments upon different animals. In a series of experiments which he had commenced last summer, he had found that in the cat, instead of closure, powerful abduction of the cords was obtained on galvanising the recurrents; and he thought it very important that we should ascertain which animal man resembled as regards the innervation of the larynx, in order to understand better the mechanism of nervous dyspnœa in aneurism. If man resembled the dog or the rabbit in this respect, he might have spasm of the glottis as the result of irritation of the recurrent nerve; but if he resembled the cat, the so-called *spasmodic* dyspnœa, when of purely nervous production, was really due to paralysis. And it was even possible that a ready means of relief might be found in galvanism; for nothing could be more striking than the instant relief afforded to the dyspnœa in the cat when the divided recurrents were galvanised. He would give his note of the experiment. The cat being under the influence of chloral, with the larynx exposed from above, "the right recurrent was firmly ligatured. At moment of ligature, respiration greatly disturbed; evident great dyspnœa. Right cord paralysed; sucked inwards towards middle line, and downwards with each inspiration. Movements of left cord as before. On faradising divided nerve (very feeble current used), right arytenoid cartilage strongly everted by rotation upon its base, which seemed approximated to that of opposite side. Left cord as before. After first attack of dyspnœa, respiration became quieter, and some minutes were passed without dyspnœa. Left recurrent nerve now firmly ligatured. Urgent dyspnœa, falling in of chest, bulging of abdomen with inspiration. The two cords drawn together with inspiration; only a very small chink left in front of arytenoid cartilages, through which air entered with slight sibilus. On now galvanising both nerves, glottis widely opened by eversion of both cartilages, and the dyspnœa at once ceased; it was greatly lessened by galvanising even one nerve. Experiment repeated several times." Unfortunately the actual dyspnœal paroxysm in aneurism could but rarely be witnessed by those who had most considered the subject; but, so far as it went, clinical observation was, Dr. Powell thought, decidedly in favour of such paroxysms, when of purely nervous origin, being due, not to spasm of the glottis, but to its closure from paralysis. Stridor and uni- or bi-lateral paralysis were the phenomena most commonly to be observed. Dr. Powell believed the mechanism of the dyspnœa in such cases to be either—(*a*) that, owing to sudden enlargement of the aneurism during exertion or effort, the increased pressure on the nerve rendered a partial paralysis complete, and a paroxysm of dyspnœa occurred from sucking together of the flaccid cords; or (*b*), (as he had seen occur in cases in which the cords had been destroyed by ulcerative disease, so, when they were paralysed) effectual cough being impossible, mucus collected at the glottis and caused dyspnœa. And, moreover, it should not be forgetten that—as was well seen in experimenting with animals—during any excitement of breathing the dyspnœa already present from paralysis of the cords would necessarily be increased. But he thought that our attention had been too exclusively directed to the larynx in these cases, and that paroxysmal dyspnœa was perhaps more often due, as contended by Dr. Bristowe, to direct pressure upon the trachea: being produced either by sudden enlargement of the tumour during exertion, etc., or by the impaction of a plug of mucus at the narrowed portion. In the latter case Dr. Powell conceived true *spasmodic* closure of the glottis might occur with the fruitless effort at cough excited by irritation of the mucous membrane.

Dr. Sibson did not think we had yet arrived at a complete explanation of these phenomena, though the paper now read would greatly aid in the inquiry. One point must be kept in mind—the difference between pressure on the trachea and pressure upon the laryngeal nerves. The pressure of an aneurism of the transverse aorta on the front of the trachea produces the so-called stridor "from within"; and this varies with the fulness of the tumour, depending upon excitement, position, etc., whilst, by implication of the laryngeal nerves, secondary spasm or even a complete closure of the larynx may occur. There are cases of pressure on the recurrent laryngeal nerve in which there is produced aphonia or hoarseness, and at times stridor. In aneurism of the descending aorta we are able to study purely the effect of pressure upon the laryngeal nerves. Then we have cases of complete closure of the larynx from an irritation which is not yet quite explained, possibly of central origin, from any annoyance to the glottis, as a foreign body, etc.

Dr. Broadbent said it had been clearly shown that pressure on one recurrent was sufficient to account for stridor; it could produce a broken voice, but not dyspnœa. He did not think it was satisfactorily explained how pressure on the vagus caused bilateral paralysis. The bilateral association of nerve nuclei was a protection from paralysis. If there was disintegration of the vagus at the seat of pressure, it might spread up to the vagus nuclei, but then not only should there be bilateral paralysis, but the other functions of the vagus should be impeded; and there was no evidence of this. If one vagus was cut, the heart, etc., was affected; but the other, remaining entire, soon took on the work of the two, and the functions of the heart and respiration were restored. In the two cases quoted there was pressure upon the vagus and the recurrent. It would be interesting to know if pressure on the vagus alone would produce bilateral spasm.

Mr. Norton said it was difficult to determine if there was bilateral paralysis; there was the appearance of it. If pressure on one recurrent nerve continues, the obstruction increases; and this looks like gradually increased paralysis of the other side, but there is infiltration of the muscles on that side, impairing their action.

Dr. J. Pollock asked if there were points of diagnosis enabling us to say whether closure of the larynx was due to mechanical pressure, or to pressure on the vagus or recurrent. In early stages of partial paralysis the stridor was due to nerve-implication, but in later stages of severe dyspnœa it was due to pressure on the trachea or on the nerve; so there is a mixed causation. It was important to know whether the larynx or

the trachea was closed, with regard to the question of opening the trachea.

Dr. Symes Thompson thought that the spinal cord and medulla should be examined in these cases; if this were done we might ascertain if the paralysis depended on secondary or primary change.

The President said that, considering the arrangement of the nerves of the larynx, we could easily understood how paralysis or dyspnœa was produced. In many nervous diseases—and in the child especially—where the larynx was easily excited, one observed spasm or convulsions, the glottis closed by spasm or paralysis; this might occur either as a symptom or not. So fatal spasm occurred in swallowing irritating substances. Pressure on a nerve first irritated and excited it; and so pressure of an aneurism on the recurrent or the vagus caused spasm; as the pressure increased you had paralysis: and these effects were noticed in cases of aneurism. One of the earliest signs of aneurism of the arch of the aorta was a tubular sound of voice or respiration in the interscapular region. It was a tracheal stridor, not a laryngeal, and was of a peculiar brazen character; it was also localised a little above or below the clavicle. The laryngeal sound was hissing or the croupy sound of children. The tracheal sound was the result of partial blocking up of the lower part of the trachea.

Dr. Johnson, in reply, said there must be some fallacy in Dr. Reid's experiment quoted by Dr. Powell; it did not agree with Dr. Powell's results on the cat, which were in accord with those of Dr. Rutherford. When the recurrent laryngeals were galvanised, all the muscles were stimulated and the cords were drawn outwards; and he thought the stridor could alone be explained by spasm. He could not understand Dr. Broadbent's difficulty as to the explanation of bilateral palsy. If the connexion between the nuclei can be found, it must be so. Then, it was said other functions of the vagus should be disturbed; and so they are—heart and lung complications do occur. Mr. Norton questioned if there was bilateral palsy: from the laryngeal examination there was no doubt of it. The laryngoscope was of great value in diagnosing between laryngeal and tracheal obstruction.

## OBITUARY.

### STAFF SURGEON THOMAS ROCHE, R.N.,

Died on the 9th instant, at the early age of forty-two. He served in the *Curacoa* (30) in the Mediterranean from September, 1854, to September, 1857; then in the *Sharpshooter* (8) on the West Coast of Africa till the summer of 1861; afterwards until March, 1865, in the *Phaeton* (39) on the North America and West India station; and from April, 1865, until promoted to Surgeon, he served at the Royal Hospital at Haslar. His last appointment was to the *Rosario* (11), in which ship he served on the Australian station from October, 1867, until October, 1871.

### ASSISTANT-SURGEON JOHN THOMPSON,

Of the Royal Artillery, died at Bath last week in his eighty-eighth year. He was an old Peninsular officer. He had received the war medal with two clasps for Albuera and Badajoz.

## MEDICAL NEWS.

University of London.—The following gentlemen have passed the recent B.S. Examination (for Honours) in the First Class:—

Gould, Alfred Pearee (Scholarship and Gold Medal), of University College; Dunean, Peter Thomas (Gold Medal), of University College.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 3:—

Heutseh, John Page, The Dispensary, Lambeth.

Also the following gentlemen on the 10th. inst.:—

Brewer, Reginald Edward Wormald, Newport, Mon.
Davis, Henry, 1, Euston-square, N.W.
Gresham, Frederick Charles, Erskine-street, Liverpool.
Hughes, William Lewis, Carmarthen, South Wales.
Jepson, Edward, Durham.
Kirby, Samuel John James, High Wyeombe, Bucks.
Synnot, John Gillespie, Halifax.

The following gentleman also on the 3rd inst. passed his primary professional examination:—

Morgan, William, St. Thomas's Hospital.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Archer, Robert K.—Assistant House-Surgeon at the General Infirmary, Northampton.

Deeley, William, M.D., L.K.Q.C.P. Ire.—Medical Officer to the Malton Dispensary.

Lupton, Harry, L.R.C.P. Lond., M.R.C.S. Eng.—Medical Officer for the Alverton District of Stratford-on-Avon Union.

McCarthy, Edward, M.D.—Medical Officer for No. 3 District of the Buckingham Union.

Steel, Graham, M.B., C.M.—Medical Registrar to the London Fever Hospital, Liverpool-road, N.

Sturge, Wm. Allen, M.B. Lond., M.R.C.S.—Medical Registrar to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

Thompson, Herbert, M.R.C.S., L.S.A.—Medical Officer and Public Vaccinator for No. 2 District of Sevenoaks Union.

White, John Bradshaw, M.D., C.M.—Resident Medical Officer at the Hackney Union Infirmary.

### BIRTHS.

Dawson.—On December 10, at Broadstone House, Dartmouth, the wife of F. Adams Dawson, M.D., of a son.

Ewart.—On December 9, at Limefield House, Cheetham Hill, Manchester, the wife of J. H. Ewart, L.R.C.P. Lond., M.R.C.S. Eng., of a son (stillborn).

Harrison.—On December 14, at 38, Ablewell-street, Walsall, the wife of A. J. Harrison, M.B. Lond., of a daughter.

Marshall.—On December 13, at Holly House, Mortlake, Surrey, the wife of W. Marshall, M.D., of a son.

Whitefoord.—On December 10, at 13, Vigo-street, W., the wife of Adam John Whitefoord, L.R.C.P., M.R.C.S., of a son.

### MARRIAGES.

Bateman—Johnson.—On December 11, at St. Andrew's Church, Southport, H. W. Bateman, Capt. H. M. 31st Regiment, eldest son of H. Bateman, F.R.C.S., of London, to Clara, elder daughter of John Johnson, Esq., J.P., late of Bank House, Runcorn, and Oakmere, Cheshire.

Freeman—Cook.—On December 15, at St. Michael's, Richard Thomas Freeman, L.R.C.P., M.R.C.S., of New Cross, to Eliza, only child of Charles F. Cook, Esq., of Lewisham.

Gray—Stephen.—On December 9, at Binns House, Linlithgow, Edward Gray, M.B., C.M., youngest son of John Gray, Esq., Q.C., the Solicitor to the Treasury, to Helen, third daughter of the late William Stephen, Esq., merchant, Montreal.

Howitt—Roques.—On December 5, at St. Andrew's, Holborn, Charles Ernest, youngest son of the late Godfrey Howitt, M.D., of Melbourne, Victoria, to Leila Adela, younger daughter of Mons. P. A. Roques, Professor of French.

Hutchison—Adams.—On December 10, at 10, Nelson-street, Edinburgh, Alfred Hutchinson, Esq., of Canton, China, to Mary Jane, only daughter of the late Kenneth McKenzie Adams, M.D., Madras Army.

Landon—Magrath.—On December 10, at St. Michael's Church, Teignmouth, Edward Palmer Landon, of Brentwood, Essex, to Mary Rosamond, eldest daughter of J. A. Magrath, M.D., of Teignmouth, Devon.

Lorimer—Reynolds.—On December 10, at St. Mary's parish church, Rotherhithe, Robert Henderson, third son of Alexander Lorimer, M.D., Deputy Inspector-General of Hospitals, late of the H.E.I.C.S., Madras, to Jane Catherine, third daughter of James Reynolds, Esq., Rotherhithe.

Morton—Cave.—On December 14, at the Church of Westbury-on-Trym, Gloucestershire, George Edward Morton, Surgeon-General (late) of H.M. Indian Army, to Harriett, third daughter of George Cave, Esq., of Burfield, J.P. for the counties of Gloucester, Hereford, and Monmouth, and D.L.

### DEATHS.

Boyd, Sir William, Kt., A.M., M.D., on December 14, aged 71.

Brown, Jeannie, youngest child of Andrew Brown, L.R.C.P., at 1, Bartholomew-road, Kentish Town, N.W., on November 7, aged 13 months.

Buckle, H.B., C.B., Deputy Surgeon-General H. M. Indian Army, at Clarges-street, London, on December 12, aged 59.

Craig, Ellen Agnes, wife of John Craig, M.D., and daughter of the late James Macintyre, Esq., of Burslem, at Shelton House, Stoke-upon-Trent, on December 15, in her 26th year.

Ewart, Emily Matilda Christina, wife of T. H. Ewart, L.R.C.P., Lond., M.R.C.S. Eng., at Limefield House, Cheetham Hill, Manchester, on December 14, aged 28.

Grierson, Annie, wife of M. Grierson, Esq., late of the Bengal Medical Service, at 69, Promenade des Anglais, Nice, on December 10.

Hudleston, John Nichols, M.D., F.R.C.S., of Ebberly House, near Torrington, North Devon, late of Compton-terrace, Islington, London, at Barnstaple, on December 15, aged 67.

Jones, Mary Sarah, widow of John Tayler Jones, Surgeon Royal Navy, and of The Birches, Stroud, youngest daughter of the late Charles Page Sweeting, surgeon, formerly of Stroud, at 3, Frome-buildings, Stroud, Gloucestershire, on December 9, aged 76.

NEWHAM, MARIA LOUISA, beloved wife of Thomas Newham, M.D., at Western Cottage, Winslow, on December 10.

NEWINGTON, ALBERT WILLIAM BEATSON, second son of Samuel Newington, M.D., of Ridgeway, Ticehurst, Sussex, at Calcutta, on November 23.

ROCHE, THOMAS, Staff Surgeon R.N., at his residence in London, on December 9, aged 42.

STODART, CAROLINE, widow of the late Edward Stodart, M.D., of Hendon, at her residence, South Norwood, after a short and painful illness, on December 14, aged 55.

## VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—Physician. Candidates must be F. or M.R.C.P., or must undertake to become so within six months. Applications, with testimonials, to Committee of Management, at the Hospital, on or before January 1, 1875.

GLOUCESTER INFIRMARY.—Surgeon and Assistant-Surgeon. Candidates for these appointments must be F. or M.R.C.S. Applications, with testimonials, to the Secretary, on or before December 31.

HANTS COUNTY LUNATIC ASYLUM.—Junior Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Manley, the Medical Superintendent of the Asylum, on or before December 22.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY-ROAD, E.—House-Surgeon. Candidates must possess a double qualification. Applications, with testimonials, to the Secretary.

ROYAL INFIRMARY FOR CHILDREN AND WOMEN, WATERLOO-BRIDGE-ROAD, S.E.—Resident Medical Officer. Candidates must be M.R.C.S. and L.S.A. Applications, with testimonials, to the Secretary, on or before December 21.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, Dr. John C. Hall, at the Hospital.

SURREY DISPENSARY, GREAT DOVER-STREET, SOUTHWARK.—Additional Surgeon. For information apply to Mr. R. G. Minshull Jones, Secretary, 190, Tooley-street, S.E.

TRINITY COLLEGE, DUBLIN.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

WEST RIDING ASYLUM, WAKEFIELD.—Clinical Assistant. Applications, with testimonials, to Dr. Crichton Browne, Medical Director, at the Asylum, on or before December 23.

## UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

### RESIGNATIONS.

*Basford Union.*—Mr. A. B. Norman has resigned the Ilkeston District; area 6791; population 11,797; salary £60 per annum.

*Blackburn Union.*—Mr. Albert L. Peacock has resigned the Harwood District; area 2863; population 4910; salary £25 per annum.

*Bradford (Yorkshire) Union.*—Dr. J. F. Leeson has resigned the Workhouse; salary £225 per annum.

*Leek Union.*—Mr. C. Heaton has resigned the Leek District; area 10,000; population 10,806; salary £45 per annum. Also the Workhouse; salary £40 per annum.

*Smallburgh Union.*—Mr. Samuel T. Huke has resigned the Ludham District; area 17,139; population 3668; salary £60 per annum.

*Tendring Union.*—The First District is vacant; area 3306; population 6079; salary £56 per annum. Also the Second District; area 12,352; population 2289; salary £41 per annum.

### APPOINTMENTS.

*Bramley Union.*—Henry W. Coleman, L.R.C.P. Edin., M.R.C.S. Eng., to the Armley District and the Workhouse.

*Bridlington Union.*—John Dickson, B.M. Glasg., L.R.C.S. Edin., to the Fourth District.

*Cookham Union.*—George H. Torrance, L.K. & Q.C.P. Ire., L.R.C.S. Ire., to the Bray District.

*Stockport Borough.*—Edwin Rayner, M.D., F.R.C.S., as Analyst.

*Wem Union.*—Alfred P. Smith, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Shawbury District.

SCARLET FEVER is alarmingly prevalent and fatal at Goole. For the past two weeks the mortality from the disease has been as high as 75 per 1000.

MR. GEORGE COOPER, F.R.C.S., OF BRENTFORD.—This gentleman, who on two occasions has been Master of the Society of Apothecaries, has just undergone the painful operation of extirpation of the eye, and, considering his great age, is going on very well.

UNIVERSITY INTELLIGENCE.—The Downing Professor of Medicine, Dr. Latham, gives notice that he will deliver a course of lectures on Materia Medica and General Therapeutics during the ensuing Lent and Easter Terms. The lectures will be delivered in Downing College on Tuesdays, Thursdays, and Saturdays, at 9 a.m., commencing on Tuesday, February 2; fee for the course, £3 3s. The Professor further gives notice that he will attend at Addenbrooke's Hospital for the purpose of clinical instruction during the three months next ensuing on Mondays, Wednesdays, Thursdays, and Fridays, at 10 a.m., commencing on Monday, January 4.

IN consequence of the wards of the London Hospital being so full of patients, the Committee have issued notices that none but urgent cases can be admitted until the new wing now in course of erection is completed.

FUTURE SURGEONS.—Upwards of 300 candidates have entered their names, and during the ensuing week will be undergoing their preliminary or Arts Examination at the University of London, for the diplomas of Fellowship and Membership of the Royal College of Surgeons.

THE NEW FRENCH FACULTIES OF MEDICINE.—The National Assembly has passed the Bill for creating Faculties of Medicine at Lyons and Bordeaux; but has refused to accord these to Lille, Nantes, Toulouse, and Marseilles.

GERMINATION OF LONG-BURIED SEEDS.—Examples have often been met with of seeds which, after having been buried deep in the soil for a great number of years, have germinated when placed in favourable conditions; but it is very rare that the age of these seeds can even be approximatively determined. This renders an observation made by Prof. Heldreich, of Athens, of peculiar interest, since it enables the age of at least 1500, and perhaps of 2000 years to be assigned to some seeds which have germinated near the silver mines of Laurium. These mines were abandoned 1500 years ago; and the modern miners, in turning over the scoriæ in search of silver lost by the ancient workers, have brought to the surface seeds of *glaucium* which were buried under three metres of scoriæ. From these seeds abundance of *glaucium* of an unknown species have sprung up, which has been named *G. Serpieri*. A curious point is that on one of these plants double flowers have been found, resembling, according to a figure given by a Greek botanist, the flowers of *trellius*, or a large double ranunculus. It would seem, therefore, that the ancients cultivated this plant.—*L'Institut*, December 9.

THE next meeting of the Society of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, to-day (Saturday, December 19), at 7.30 p.m. At the President's request, the subject matter of his inaugural address, "On the Estimation of the Sanitary Conditions of Communities, and the Comparative Salubrity of Towns," will be considered; and, for the purpose of promoting and aiding the discussion, the President desires to state that the object of the address was, not to depreciate the real value and true significance of death-rates, *when properly estimated;* but to raise the question, whether in their "crude condition," *as usually estimated*, they are trustworthy exponents of the sanitary condition of communities. With a view of solving this question, it was shown that many circumstances, besides the sanitary condition of a place, affected the death-rate, as—1. The migratory movements of the population; 2. The birth-rate of the population; 3. The relative proportions of males and females in the population; 4. The imperfections of registration returns; 5. The difficulty of ascertaining the actual number of the population. The questions, therefore, which present themselves for discussion are—1. The influence of these circumstances (individually and collectively) on the death-rate of different places; 2. Whether such influences are of sufficient magnitude and importance to affect, in a serious degree, the value of death-rates as a means of determining the sanitary condition of communities and the comparative salubrity of towns. The discussion will be introduced by Dr. Stevenson.

## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*J. F. B.*—Dr. John Friend delivered the Harveian Oration in 1720.

*Valentine.*—"Yet am I better than one that 's sick o' the gout."
—*Shakespeare.*

*T. Scattergood.*—Ward, of Leicester-square, is celebrated for the manufacture of invalid chairs of every imaginable kind and degree of convenience; but if you consult our advertising columns you will be able to choose between him and other ingenious manufacturers.

*Christopher.*— "Man is a tree that hath no top in cares,
No root in comforts."—*Chapman.*

*A. S. G. J.*—You will see a note on a proposed sand bath in London at page 243, vol. ii. 1872. Mineralised mud baths are much employed at Marienbad, Franzenbad, and other German baths, and also at St. Amand, near Valenciennes.

*Oriental.*—A work on "The Practice of Surgery," by Mr. Mac Cormac, was announced by Messrs. Smith, Elder, and Co. in their list of forthcoming works some time since, but is not yet published.

*Student.*—*Vide* article on Glanders in Reynolds's "System of Medicine."

*T. M., Ash.*— "Imagination, thro' the trick
Of doctors, often makes us sick;
And why, let any sophist tell,
May it not likewise make us well?"—*Churchill.*

*Corrigendum.*—In our report of the discussion on Mr. Hulke's paper on Chloral Poisoning read at the Clinical Society of November 27, Dr. Farquharson is made to say that he "had used as much as six drachms a day." What Dr. Farquharson did say was that he "had given *one* drachm a day for five consecutive days."

COMMUNICATIONS have been received from—

The President and Council of the Statistical Society, London; The Registrar of Apothecaries' Hall, London; Oriental; Dr. Aveling, London; Dr. Willoughby Arding, Wallingford; Mr. S. R. Van Campen, London; A. S. G. J.; Charitas; Dr. J. J. Charles, Belfast; Dr. Edis, London; Mr. T. Stone, London; Dr. Gavin Milroy, Richmond; Dr. R. T. H. Bartley, Bristol; The Registrar-General, Edinburgh; Dr. B. W. Richardson, London; Dr. Coupland, London; Mr. H. Morris, London; Dr. J. Milner Fothergill, London; Mr. Andrew Duncan, Greenwich; Mr. Becher, London; Mr. J. Chatto, London; Dr. Sparks, London; Mr. B. Vincent, London; Dr. J. Northcote Vinen, London; Mr. R. J. Godlee, London; Mr. F. A. Allen, London; Inspector-General Lawson, London: Mr. Donelly, Dublin; Dr. Latham, Cambridge; Mr. Scattergood, Leeds; Student; Dr. Farquharson, London; Mr. Jebb, London.

BOOKS AND PAMPHLETS RECEIVED—

Livingstone's Last Journals, 2 vols.—Lunn on the Philosophy of Voice—La Théorie des Atomes dans la Conception Générale du Monde, par M. M. A. Wurtz—La Syphilis et la Prostitution dans leurs rapports avec l'Hygiène, la Morale, et la Loi, par le Dr. Mireur—Etudes Précises sur les Déformations de la Poitrine, par le Dr. E. Fourmentin—Traité des Maladiés des Reins, par M. le Professeur Lechorché—Reports of the Medical and Surgical Registrar of the Middlesex Hospital for the year 1873—Studies on Biogenesis, by W. Roberts, M.D.—Report of the Early Closing Association—McCosh on the Drainage of London and other Large Cities—The Medical Temperance Journal, vol. v.—Galton's English Men of Science, their Nature and Nurture—Churchill's Diseases of Women, sixth edition—Ward's Outlines of Zoology and Comparative Anatomy.,

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine.

## APPOINTMENTS FOR THE WEEK.

*December* 19. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

21. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic 1½ p.m.

Medical Society of London, 8 p.m. Mr. W. F. Teevan, "A Review of the Modern Methods of Treating Stricture." Mr. G. Henry Pedler will show his New Instrument, the Pneumatograph. Mr. Spencer Watson will bring forward a patient with Displacement of the Eyelids, Nose, and other Features, resulting from a Severe Injury, and partly remedied by Plastic Operation.

22. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

23. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

24. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

25. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, December* 12.

### BIRTHS.

Births of Boys, 1168; Girls, 1089; Total, 2257.
Average of 10 corresponding years 1864-73, 2103·3.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 995 | 1087 | 2082 |
| Average of the ten years 1864-73 | 785·4 | 783·5 | 1568·9 |
| Average corrected to increased population | ... | ... | 1726 |
| Deaths of people aged 80 and upwards | ... | ... | 118 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 4 | 4 | 4 | 7 | ... | 5 | ... | 1 |
| North ... ... | 751729 | ... | 1 | 14 | 2 | 7 | 2 | 6 | 1 | 2 |
| Central ... | 334369 | ... | ... | 8 | ... | ... | 1 | 1 | 1 | 2 |
| East ... ... | 639111 | ... | 5 | 33 | 4 | 13 | ... | 5 | 4 | 6 |
| South ... ... | 967692 | 2 | 8 | 32 | 5 | 16 | 1 | 8 | 6 | 3 |
| Total ... ... | 3254260 | 2 | 18 | 91 | 15 | 43 | 4 | 25 | 12 | 14 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·214 in. |
| Mean temperature | 39·1° |
| Highest point of thermometer | 53·3° |
| Lowest point of thermometer | 25·8° |
| Mean dew-point temperature | 35·1° |
| General direction of wind | W. |
| Whole amount of rain in the week | 0·82 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 12, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Dec. 12. | Deaths Registered during the week ending Dec. 12. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2257 | 2082 | 53·3 | 25·8 | 39·1 | 3·95 | 0·82 | 2·08 |
| Portsmouth ... | 120436 | 26·8 | 71 | 44 | ... | 26·2 | ... | ... | 1·31 | 3·33 |
| Norwich ... ... | 82257 | 11·0 | 46 | 51 | 51·0 | 25·5 | 37·4 | 3·00 | 1·02 | 2·59 |
| Bristol ... ... | 192889 | 43·3 | 125 | 124 | 51·9 | 30·4 | 40·4 | 4·66 | 2·36 | 5·99 |
| Wolverhampton ... | 70896 | 20·9 | 54 | 43 | 50·6 | 27·0 | 37·7 | 3·17 | 1·46 | 3·71 |
| Birmingham ... | 360892 | 43·0 | 285 | 217 | 51·0 | 28·8 | 39·0 | 3·89 | 1·16 | 2·95 |
| Leicester ... ... | 106202 | 33·2 | 71 | 65 | 50·5 | 23·0 | 36·6 | 2·55 | 1·01 | 2·57 |
| Nottingham ... | 90894 | 45·5 | 69 | 56 | 51·1 | 23·0 | 37·2 | 2·89 | 1·06 | 2·69 |
| Liverpool ... ... | 510640 | 98·0 | 377 | 380 | 50·5 | 31·3 | 38·1 | 3·39 | 1·16 | 2·95 |
| Manchester ... | 355339 | 82·8 | 249 | 231 | 49·5 | 23·0 | 37·2 | 2·89 | 1·71 | 4·34 |
| Salford ... ... | 133068 | 25·7 | 146 | 89 | 45·5 | 22·8 | 36·7 | 2·61 | 1·70 | 4·32 |
| Oldham ... ... | 86281 | 18·5 | 87 | 58 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 131 | 104 | 49·8 | 27·6 | 36·3 | 2·39 | 1·77 | 4·50 |
| Leeds ... ... | 278798 | 12·9 | 171 | 173 | 49·0 | 28·0 | 37·6 | 3·11 | 1·90 | 4·83 |
| Sheffield ... ... | 261029 | 13·3 | 192 | 179 | 50·0 | 26·0 | 37·5 | 3·06 | 1·69 | 4·29 |
| Hull ... ... ... | 130996 | 36·0 | 100 | 84 | 44·0 | 21·0 | 34·6 | 1·45 | 1·27 | 3·23 |
| Sunderland ... | 104378 | 31·6 | 67 | 59 | 45·0 | 23·0 | 37·4 | 3·00 | 1·42 | 3·61 |
| Newcastle-on-Tyne | 135437 | 25·2 | 83 | 105 | 44·0 | 23·0 | 35·2 | 1·78 | 1·08 | 2·74 |
| Edinburgh ... ... | 211691 | 47·8 | 123 | 132 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 350 | 391 | 50·7 | 23·1 | 35·2 | 1·78 | 1·55 | 3·94 |
| Dublin ... ... | 314666 | 31·3 | 170 | 185 | 55·0 | 27·0 | 38·8 | 3·77 | 0·86 | 2·18 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5224 | 4852 | 55·0 | 21·0 | 37·3 | 2·95 | 1·38 | 3·51 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·21 in. The highest was 29·85 in. on Monday evening, and the lowest 28·45 in. on Wednesday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

# ORIGINAL LECTURES.

## COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond., F.R.C.P.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

### Lecture VIII.—Acute Catarrhal Pneumonia.

(*Continued from page* 626.)

The prognosis in catarrhal pneumonia is very grave, and this variety of pulmonary inflammation is much more to be dreaded than the croupous form. Its greater severity may be partly accounted for by the fact that the latter disease is in young children nearly always a primary complaint, while in the case of the former the strength has been already reduced by the bronchitis which preceded it. The age of the child and the degree of vigour possessed by the patient at the time of the attack exercise a considerable influence upon the ultimate issue of the illness; for weakly children and infants, with their feeble resisting power, and tendency to rapid prostration of strength, have little prospect of passing safely through so formidable a complaint. The danger in ordinary cases is in proportion to the acuteness of the disease and the intensity of the general symptoms. When the inflammation runs a subacute course, as it is apt to do after whooping-cough, or in cases where it supervenes upon chronic bronchitis in an emphysematous subject, the chances in favour of ultimate recovery are very much increased.

In severe cases, symptoms of unfavourable augury are—lividity of the face and blueness of the lips, a greatly perverted pulse-respiration ratio, loss of brightness of the eye, and marked apathy or somnolence. If a young child shows complete indifference to the discomforts of an examination and allows himself to be disturbed, not only without complaint, but even without manifesting annoyance by any change of expression, the most serious apprehensions should be entertained as to the probable termination of his illness. On the other hand, if the lividity diminish, the breathing become easier, and the cough less constant and distressing, a more favourable view may be indulged in, even although the temperature show no sign of falling.

The treatment of catarrhal pneumonia differs little from that of the pulmonary catarrh by which it is preceded. "A cold on the chest" in a child should never be neglected, for while it lasts the child's natural susceptibility to changes of temperature is greatly aggravated, and a fresh chill might set up a severe bronchitis, which would in all probability lead to an attack of catarrhal pneumonia.

In the early stage a pulmonary catarrh may be readily checked by confinement to bed, the repeated application of weak mustard poultices to the chest and back, and the administration of frequent small doses of ipecacuanha wine in a simple saline draught. If the bronchitis be a severe one, counter-irritation is very important, but strong applications are not required. It is better to act slowly upon a large surface of the skin than rapidly upon a small surface. For an infant of twelve months old one part of flour of mustard may be added to six parts of linseed meal. The poultice should be made with warm, but not boiling, water, and should be large enough to cover the whole of either the chest or back. It may be kept in contact with the skin for three, four, or five hours, or as long as the patient is able to bear it. For older children a larger proportion of mustard may be used, but it should always be sufficiently diluted with linseed meal to allow of the application being kept upon the skin for several hours in succession without producing too severe an irritation.

In giving medicines at this time care should be taken to adapt the drug to the stage the catarrh has reached, for much mischief may be done by heedless dosing. The rule cannot be too rigidly followed, that in an early stage of pulmonary catarrh, while the bronchial mucous membrane is much swollen, and before secretion has become free, all stimulating expectorants are injurious. At this stage, ammonia, squill, tolu, and the other bronchial stimulants, instead of promoting secretion, only make the cough harder and the chest tighter, and aggravate the irritation which it is our object to allay. Even the old plan of leeching the chest and drugging with antimony and calomel causes scarcely greater mischief to the child than the modern method of reckless stimulation with ammonia and brandy. In an early stage of the disease, when the oppression of the chest is great and the dyspnœa troublesome, such treatment only increases the distress of the patient, and promotes the extension of the bronchitic inflammation to the air-cells. Many a case of catarrhal pneumonia has owed its origin to no other cause than injudicious treatment of a pulmonary catarrh. The greatest and most immediate benefit is obtained by medicines which excite the action of the skin and encourage free secretion from the bronchial tubes. If we can do this without at the same time depressing the patient's strength, we adopt the readiest means to relieve his suffering and hasten his ultimate recovery. For a child of one year old five drops each of ipecacuanha and antimonial wines given every three hours in a simple saline draught will have the effect desired. If any depression seem to be induced by the mixture, a few drops of spirits of chloroform may be added to each dose, or a few drops of brandy may be given occasionally in addition. An emetic dose of ipecacuanha given early in the disease is useful in loosening the cough and relieving the tightness of the chest. This treatment, combined with confinement to one room kept at an even temperature, and the application of weak mustard poultices, as before described, will soon produce an improvement in the symptoms; afterwards, when secretion is free and the oppression has been removed, a mixture containing ammonia and squill, with small doses of paregoric, will prove of material assistance in completing the cure. On account of their tendency to collapse of the lung, very young infants suffering from pulmonary catarrh should be carefully watched, so that any unfavourable change in the symptoms may be immediately noted. Thus, if the breathing become shallow, and the face at all livid or dusky, they should be at once roused if asleep, and forced to exert their inspiratory power. When an infant cries, his inspirations are much deeper than when he is quiet. A cold wet sponge may be suddenly applied to the naked chest, or vigorous friction may be used to the thorax. An emetic is also useful to clear away the phlegm from the tubes and promote deep inspirations. Older children should be confined strictly to bed if the catarrh be at all severe; for by this means not only do we protect the patient from a fresh chill, but we also insure a necessary amount of rest. A sick or feverish child requires *repose;* his mind should be kept unexcited and his body quiet; and to put him to bed is the most effectual way of accomplishing this object. Violent purgation is more injurious than beneficial in these cases, but care should be taken that the bowels are properly relieved. It is well to promote the flow of bile by an occasional dose of grey powder. The diet should be simple, and may wisely be limited to milk and broth so long as the cough continues hard and the breathing much oppressed. In proportion, however, as the cough loosens, the diet may be improved, and stimulants may be given if required. Before this they should not be made use of unless the condition of the child imperatively calls for their administration.

When a case of bronchitis is complicated by the occurrence of catarrhal pneumonia, the treatment differs from that already described only by the more energetic use of counter-irritation. The poultices should be large enough to reach completely round the chest, and should be kept in contact with the body long enough to produce very deep redness of the skin. In bad cases, even if some slight blistering of the surface be produced, the effect will not be injurious.

The medicines at first should consist of the ipecacuanha and antimonial mixture, as recommended for bronchitis; but directly any signs of depression are noticed, this must be supplemented by a necessary quantity of stimulant, or, if thought desirable, must be omitted altogether, and be replaced by ammonia and ether given with an alkali. Food must be administered in small quantities at frequent intervals, and should consist of milk with Mellin's patent extract for infants not at the breast, and for older children of milk and broths. If necessary the milk may be guarded by a few drops of the saccharated solution of lime. As the strength fails it must be supported by strong beef-tea, brandy, and the brandy-and-egg mixture of the "Pharmacopœia."

In cases of recovery care should be taken during convalescence not to be too anxious to return to the diet and habits of health. In particular the patient should not be overloaded

with large quantities of nourishing food, in the hope of more quickly restoring his exhausted powers. Recovery, when it happily occurs in catarrhal pneumonia, is always gradual; and considering the severity of the disease, and the danger escaped from, we must be contented that it should be so.

## ORIGINAL COMMUNICATIONS.

OBSERVATIONS ON THE

# INFLUENCE OF THE CONTAGIOUS DISEASES ACTS ON THE FREQUENCY OF PRIMARY VENEREAL SORES.

By ROBERT LAWSON,
Inspector-General of Hospitals.

In a recent statement of the grounds on which the Contagious Diseases Acts are opposed, by Dr. Birkbeck Nevins, that gentleman, while admitting that the troops at the stations in this country, where these Acts had been in force, showed a much smaller ratio of primary venereal sores than at those not under their operation, yet contends that this limitation of the disease is altogether due to other causes, and in nowise dependent on the measures sanctioned by these statutes. As it is important the course of the disease during the last few years, in that portion of the army serving in this country, should be fairly understood, and the lesson it conveys carefully considered, it is proposed here to examine Dr. Nevins's reasons for the conclusions he has arrived at, differing so essentially as they do from those of men who have been brought much more into contact with the troops.

In approaching this subject it is necessary to mention two peculiarities in the mode of occurrence of primary venereal sores, which do not seem to have attracted much attention, but a knowledge of which is essential to a right appreciation of the statistics at our disposal. The first of these is, that the frequency of primary venereal sores fluctuates from year to year like those of small-pox, scarlatina, or measles, and to quite as great an extent as those of the last named. Venereal sores, in short, present epidemic features quite as strongly marked as those of measles, and, so far as the United Kingdom is concerned, as generally diffused. The statistical returns for the troops on the home station, from 1830 to 1847, show this distinctly,(a) and the same is manifest in the following table:—

TABLE I.—*Showing the Strength of the Troops that served on the Home Station the whole of each year, with the Ratio per* 1000 *of strength of the Admissions for Primary Venereal Sores.*

| Years. | Strength. | Ratio per 1000 admitted for Primary Venereal Sores. | Years. | Strength. | Ratio per 1000 admitted for Primary Venereal Sores. |
|---|---|---|---|---|---|
| 1860 | ... 83,386 | 131·3 | 1867 | ... 62,901 | 88·7 |
| 1861 | ... 81,500 | 120·4 | 1868 | ... 68,350 | 81·8 |
| 1862 | ... 76,029 | 102·3 | 1869 | ... 68,962 | 78·7 |
| 1863 | ... 70,819 | 100·9 | 1870 | ... 70,131 | 68·5 |
| 1864 | ... 63,153 | 91·1 | 1871 | ... 87,142 | 59·5 |
| 1865 | ... 62,911 | 86·9 | 1872 | ... 85,722 | 68·9 |
| 1866 | ... 59,758 | 80·2 | | | |

Here, then, was a gradual fall to 1866; in 1867 there was a marked rise, which would have been continued into 1869 but for the reduced numbers of admissions at the stations under the Contagious Diseases Acts. The ratio, however, fell to 1871, but presented a sharp rise the following year. Though as yet we are not able to account for these fluctuations, their existence cannot be overlooked in any attempt to explain the causes of the prevalence of this form of disease.

The other peculiarity requiring attention is, that if several corps be at the same station, it is found that, though as far as possible under similar conditions, they vary considerably in the number of primary sores contracted by their men. Thus, at Aldershot, where there are usually from fourteen to sixteen different corps during winter, and from twenty-two to twenty-four in summer, while the majority presented a ratio of admissions for primary sores varying little from the mean for the station at the time, two or three would show one from one-third to a half lower than the mean; and, on the other hand, some two or three would present ratios higher by one-third, one-half, or even more, than the general ratio for the station; and this feature was not an accidental or temporary one, but each corps presented its characteristic rate for many months, or even during the whole of its service there; and inquiry into the previous experience of the corps at other stations generally elicited a similar account of comparative freedom from, or of greater liability to, primary affections, than in others serving at the same place with which it might be compared. With this peculiarity in existence it is clear no weight can be attached to the ratios of attacks for single years at small stations, where the whole or the greater part of the force employed may have belonged to a single regiment. The irregularities noticed above can be neutralised only by taking large stations at which several corps have served at the same time, or by taking as many of the smaller stations as possible, so as to afford a mean, in which it is probable an excess or defect at any one may be counteracted by the opposite at some other. For the same reason, too, the general progress of venereal affections can be made out with most certainty by dealing with the combined results from the greatest number of stations under the same or nearly the same conditions. Conclusions drawn from the results obtained at single small stations can never have much weight, and may often seem to favour conclusions altogether erroneous.

Dr. Nevins in paragraph 54 admits that primary venereal sores have diminished in the army, and in paragraph 55 gives two tables from Parliamentary Paper No. 208, dated May 14, 1873, with Dr. Balfour's comments upon them. As much of these tables as is necessary to the present purpose has been brought together in the following one, under the letters A and B respectively; and another portion has been added under C, showing the strength and annual ratio of admissions for primary venereal sores at the fourteen stations which have never been under the Contagious Diseases Acts.

TABLE II.—*Showing the Annual Average Strength, and Ratio per* 1000 *of Primary Venereal Sores, each year, at Stations*—A, *not then under the Contagious Diseases Act;* B, *at those under the Act;* C, *at those which were never under the Act.*

| Years. | A Not under Act. | | B Under Act. | | C Never under Act. | |
|---|---|---|---|---|---|---|
| | Average Strength. | Ratio per 1000, Primary Sores. | Average Strength. | Ratio per 1000, Primary Sores. | Average Strength. | Ratio per 1000, Primary Sores. |
| 1864 | 60,681 | 108·6 | ... | ... | 19,987 | 122·3 |
| 1865 | 55,167 | 99·9 | 7,932 | 120·0 | 19,482 | 110·7 |
| 1866 | 49,150 | 90·9 | 10,161 | 90·0 | 19,835 | 98·1 |
| 1867 | 36,439 | 108·0 | 24,061 | 86·3 | 20,589 | 115·2 |
| 1868 | 34,311 | 106·7 | 27,770 | 72·1 | 19,486 | 109·3 |
| 1869 | 27,401 | 111·9 | 32,355 | 60·9 | 17,739 | 128·1 |
| 1870 | 17,852 | 113·3 | 41,580 | 54·5 | 17,852 | 113·3 |
| 1871 | 19,957 | 93·4 | 54,096 | 51·0 | 19,957 | 93·4 |
| 1872 | 19,950 | 123·1 | 50,794 | 54·2 | 19,950 | 123·1 |
| Total of 8 years | 260,227 | ... | 248,210 | ... | 154,890 | ... |
| Average 1865-72 | 32,528 | 103·1 | 31,026 | 63·0 | 18,361 | 117·2 |

With reference to the portions A and B, in the above table, Dr. Balfour remarks, they comprise the results obtained from the returns of twenty-eight stations in the United Kingdom, being all those at which the force was 500 men or upwards. In 1864, the year before the Contagious Diseases Act came into operation, the admissions into hospital at these stations for primary venereal sores were 108·6 per 1000 of mean strength. In 1872, the admissions at the fourteen stations then under the Acts amounted to 54·2, a reduction of 54·4 in that form of disease likely to produce great constitutional deterioration. Again, if the average of the eight years during which the Acts were in operation be taken, it will be seen that at the stations "Not under the Act," in an average force of 32,500, the ratio of admissions for primary venereal sores was 103·1; while at stations "Under the Act," in an average force of 31,000 men, the ratio was 63·0 per 1000 only—a difference in favour of the stations "Under the Act" of 40·1.

Dr. Nevins objects to these conclusions of Dr. Balfour in paragraphs 62 and 63, and that he may not be misrepresented these are transcribed here:—

"62. It is surprising that Dr. Balfour has not himself discovered or pointed out *a singular error running through the tables in Parliamentary Paper* 208, *which makes them absolutely valueless as a basis for the conclusions in the paragraphs quoted.* It arises from the mode of construction of the tables, and is inherent in them. In the column headed 'Average strength' in the table 'Not under the Act,' the numbers

(a) See *Medical Times and Gazette*, January 7, 1871, page 7.

decrease year by year; while in the table 'Under the Act' there is a corresponding increase of about the same amount. Thus it is evident that as the stations were brought under the Acts they were removed from the former table to the latter. The effect of this process may be seen by taking a series of imaginary stations of 1000 men each, having different ratios of disease (as is the case in real stations), and treating them in the same way as in the first table in the Parliamentary Paper 208, thus:—

"63. *Ratio of Disease per* 1000 *not under the Act.*

| Station. | 1st year. | 2nd year. | 3rd year. | 4th year. | 5th year. |
|---|---|---|---|---|---|
| A | 160 | 160 | 160 | 160 | 160 |
| B | 140 | 140 | 140 | 140 | transferred. |
| C | 100 | 100 | 100 | transferred. | |
| D | 80 | 80 | transferred under the Acts. | | |
| E | 60 | transferred under the Acts. | | | |
| | 5)540 | 4)480 | 3)400 | 2)300 | 1)160 |
| Averages | 108 | 120 | 133 | 150 | 160 |

Here it would appear that the ratio of disease had *risen* in the station not under the Acts, from 108 in the first year to 160 in the last; whereas it had, in fact, been absolutely stationary."

In paragraph 64 a scheme the reverse of the above, in which the transfers commence with station A the second year, is given, which need not be reproduced here, but in a footnote it is stated, "The *formula* which applies to all cases of transfers from one set of stations to another is the following:—If the ratio of disease in the station transferred is higher than the average, the ratio of the remaining stations will appear to fall. If the ratio of disease in the station transferred is lower than the average, the ratio in the remaining stations will appear to be raised. The converse is the case with the table to which the transfers are made."

The above scheme apparently supports Dr. Nevins's inference that the higher ratios of primary sores at stations "Not under the Act" were owing to the stations at which these were lower being transferred to those "Under the Act," and the last sentence of the footnote quoted, no doubt, he considers explains the diminished ratios in the latter group. Unfortunately, however, for this view, on writing out the transfers, they give *increasing*, not decreasing ratios; thus:—

| Station. | 1st year. | 2nd year. | 3rd year. | 4th year. | 5th year. |
|---|---|---|---|---|---|
| A | — | — | — | — | — |
| B | — | — | — | — | 140 |
| C | — | — | — | 100 | 100 |
| D | — | — | 80 | 80 | 80 |
| E | — | 60 | 60 | 60 | 60 |
| | — | 1)60 | 2)140 | 3)240 | 4)380 |
| Averages | — | 60 | 70 | 80 | 95 |

Had these transfers, then, had the effect Dr. Nevins imagines, the ratios at the stations "Under the Act" should have presented a material increase, instead of the almost uninterrupted decrease which Dr. Balfour brings out so clearly. Dr. Nevins's scheme is deceptive in another important point: it assumes that the same ratio remained unaltered at each station for a series of years; whereas it is found that the frequency of primary venereal sores oscillates materially when not interfered with by preventive measures, and the influence of the latter must be arrived at, not merely by comparing the ratio of the primary sores at stations "Under the Act" in one year with that for the previous or following one, but by comparing it with the incidence of the same at other stations "Not under the Act" for the same year, care being taken to employ numbers sufficiently large to neutralise, as far as possible, those anomalies alluded to above.

Notwithstanding these remarks on the unsoundness of Dr. Nevins's criticism on Dr. Balfour's returns, and his conclusions therefrom, it seems advisable to afford an independent test of their correctness by giving separately the ratios of admission for primary sores at the fourteen stations which have never been under the operation of the Acts. This is done under C, in Table II. The mean numbers under observation amounted to 18,361, with but little variation from year to year; they afford, therefore, a fair basis of comparison. From 1870 onwards, the strength and ratios are the same as in the stations "Not under the Act," as no transfer took place after that year. It will be observed that the ratios under C are somewhat higher than those under A up to 1869. They bear out the main facts established by the latter, however, of the reduction in the frequency of primary sores to 1866, and of a marked increase in 1867, followed by a minimum in 1871.

The statement has been frequently made, and has been reiterated by Dr. Nevins, that the primary sores had been diminishing rapidly among the troops since 1860, and that the advantages attributed to the enforcement of the Act were really owing to the continued operation of the causes which had led to the previous reduction. Now, Tables I. and II. agree in showing a continued decrease in the ratios of primary sores to 1866, though, as the bodies of men to which these refer were differently grouped in each case, the ratios themselves necessarily differ also; yet each series is consistent with itself, and shows this reduction. In 1867 a marked rise took place in the ratio, which is manifested in Table I., and under A and C in Table II.; this fluctuated slightly till 1870, and was followed in 1871 by a considerable fall; this again was followed by a decided rise in 1872. From 1867 the stations "Under the Act," as indicated under B, Table II., presented a large and continuous decrease in their ratios till 1871; and in 1872 there was a very small increase, from 51·0 per 1000 to 54·2, as against a rise at the stations "Not under the Act," from 93·4 in 1871 to 123·1 in 1872. It is thus clear that though primary venereal sores diminished among the troops at home, generally, from 1860 to 1866, yet they increased again in 1867, and continued high until 1870, wherever their course was not interfered with by the operation of the Act. The preventive measures, therefore, imposed under the Act, had to work, not merely against the state of things in existence in 1866, but also against those conditions, of which so little is known unless through their effects, which led to the increased prevalence of the disease over the country the following years.

That the gradual decrease in the frequency of primary venereal sores did not continue after 1866 at the stations which ultimately came under the Contagious Diseases Act of that year, and that by far the greater part of the reduction they ultimately manifested was attained after the application of the Act to them, is obvious from the following table:—

TABLE III.—*Showing the Mean Strength, and Ratio per* 1000 *of Admissions from Primary Venereal Sores, each year, from* 1866 *to* 1872, *at four groups of Stations which came under the Contagious Diseases Act from* 1867 *to* 1870; *also, the Mean Strength and Annual Ratio for the Fourteen Stations never under the Act. The asterisk indicates the year each group came under the Act.*

| Stations. | Mean Annl. Strgth. | 1866. | 1867. | 1868. | 1869. | 1870. | 1871 | 1872. |
|---|---|---|---|---|---|---|---|---|
| Devonport, etc., Portsmouth, Chatham, etc., Woolwich, & Aldershot | 28,078 | 86·4 | *86·3 | 69·5 | 58·1 | 54·5 | 58·6 | 55·3 |
| Windsor | 1,052 | ... | 57·7 | *135·8 | 92·7 | 67·3 | 77·4 | 95·7 |
| Shorncliffe and Colchester | 4,686 | 112·7 | 91·5 | 123·8 | *70·7 | 39·2 | 30·6 | 42·8 |
| Winchester, Dover, Canterbury, Maidstone, Cork, Curragh, & Newbridge | 10,838 | 78·1 | 106·8 | 94·1 | 82·1 | *59·8 | 36·8 | 52·1 |
| Fourteen Stations never under Act | 18,361 | 98·1 | 115·2 | 109·3 | 128·1 | 113·3 | 93·4 | 123·1 |

Windsor was included in the London district in 1866. The strength there from 1867 has been little above 1000 men, and the ratios in consequence, even though under the Act, present an unusual degree of fluctuation, as is always liable to occur with small bodies of men changed from time to time. At the other groups, the diminution after coming under the Act is well marked, and from the larger force under observation than at Windsor the fluctuations are much smaller. The course of the disease at these stations, after coming under the Act, presents a striking contrast with its progress in the country at large, as indicated by the ratios for the fourteen stations never under the Act, and affords the best proof of the unsoundness of Dr. Nevins's objection to the efficiency of the Act for insuring the object for which it was framed.

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THE Master of the Rolls on Saturday last granted, on the application of some of the inhabitants of the Manor of Stockwell, an interim injunction restraining the Lord of the Manor from building upon or enclosing Stockwell-green.

CREMATION.—Med.-Rath Dr. Küchenmeister, detailing the process of the second cremation which has been executed in Siemens' furnace at Dresden (*Deutsche Klinik*, Nov. 28), says that he the more readily publishes this report as it is not likely that any more burnings will take place for some time at Dresden, the Government having determined to forbid the practice.

# REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

## TRIPLICANE DISPENSARY, MADRAS.

### EXTRACT FROM THE ANNUAL REPORT OF OUT-PATIENTS FOR THE YEAR 1871.

By Honorary Surgeon MOODEEN SHERIFF.

(*Continued from page* 634.)

#### III. Medical Cases.

*Case* 13.—*Traumatic Tetanus, the Result of a Severe Wound of the Toe—Recovery.*

T., aged 16, male, Pariah, was admitted on June 8, and discharged cured on July 11, 1871. Duration of tetanic symptoms before admission, five or six days.

*Case* 14.—*Traumatic Tetanus from a Wound of the Scrotum—Recovery.*

N., aged 52, male, Malabar, was admitted on November 13, and discharged cured on December 8, 1871. Duration of tetanic symptoms before admission, one day.

*Case* 15.—*Traumatic Tetanus from a Wound of the Foot—Recovery.*

A. B., aged 11, female, Mahomedan, was admitted on April 30, and discharged cured on May 17, 1871. Duration of tetanic symptoms before admission, six days.

*Case* 16.—*Traumatic Tetanus from Sloughing of the Foot—Death.*

S., aged 20, male, Pariah, was admitted on May 10, 1871, and died on the following day. Duration of tetanic symptoms before admission, four days.

*Case* 17.—*Traumatic Tetanus from a Severe and Neglected Wound of the Forehead—Death.*

Y., aged 3, male, Pariah, was admitted on August 13, 1871, and died on the 17th. Duration of tetanic symptoms before admission, two days and a half.

(The detailed history of the above five cases of traumatic tetanus has been purposely omitted on account of its great length, but all the important facts connected with their treatment, particularly with reference to the value of each medicine used in them, are fully explained in the following remarks.)

*Remarks.*—In my Annual Report for 1868, which is published in No. 2 of the Madras *Monthly Journal of Medical Science*, page 111, I have spoken of antispasmodics with stimulants as the most successful treatment of tetanus, according to my own experience. I have given there a formula for pills containing musk, saffron, etc., which I said I use with port wine in all the cases in which the patients are able to buy those medicines. I have also given another prescription which contains opium and arrack, which I use in all other cases, particularly those requiring to be treated in the Dispensary. Since the above report I had no opportunity of using the pills again, but have used opium and arrack in several cases, and with the same good result as before. During the last year the number of cases of traumatic tetanus I have treated was five, which have been described above. It will be observed from these cases that three have recovered and two proved fatal. In one of the fatal cases (No. 16) the patient died in about twenty-four hours after admission, during which period he took hardly any medicine; and therefore this case must be excluded in considering the value of the treatment adopted. According to this arrangement, there was only one death in four cases of traumatic tetanus treated by me during the last year. Out of these four cases, one (No. 15) occurred when there was no opium in the Dispensary, and I therefore treated it chiefly with assafœtida, extract of hyoscyamus, and arrack, which proved successful very rapidly. The three remaining cases (Nos. 13, 14, and 17) were treated with opium and arrack, and with the occasional use of chloroform as an anæsthetic agent. In one of these cases (No. 14), in addition to the medicines just named, chlorodyne, tincture of hyoscyamus, and chloral hydrate were resorted to during the course of the disease. The first case in which I used chloroform was No. 13. The subject of this case was a boy, and did not allow the wound to be dressed without much crying and struggling, which aggravated the spasms so much that there was fear of suffocation. He was therefore placed under the influence of chloroform whenever the wound was dressed or anything else was done to him, such as changing the bedclothes, administering purgative enemata, etc. Chloroform was not only used in this way, but, being a powerful antispasmodic and hypnotic itself, it has also exercised a beneficial influence over the disease, and thus assisted the medicines administered by the mouth. In No. 17 case the patient was a child of about three years, and had a very dirty and neglected wound on the head, which was the cause of tetanus. Any attempt to dress the wound excited the child so much that he was in a frightful condition from aggravation of the symptoms, and it was therefore more necessary to use chloroform in this case than in No. 13. This was accordingly done morning and evening, together with the use of opium and arrack in very small doses, and the patient was nearly free from spasms and rigidity on the morning of August 17. In the evening, however, of the same day, about an hour after the dressing of the wound under the influence of chloroform, the child was seized suddenly with some symptoms which were more like those of a fit of mania than anything else. They continued unceasingly till the child died exhausted in three or four hours. I cannot but attribute these symptoms to the use of chloroform, which is well known to the profession to produce occasionally some anomalous and dangerous symptoms. The symptoms from which the patient died in this case were delirium and excitement of mind, with attempts to sing and whistle, and with the eyeballs rolled upwards occasionally. These symptoms developed themselves suddenly about an hour after the use of chloroform, during which period the patient appeared greatly improved, and was expected to get well in a few days. The next case in which chloroform has been used was No. 14. This is the case in which, also, several other medicines have been resorted to, as I have already mentioned. Chloroform was not necessary in this case as an anæsthetic agent, except on the occasion of removing the cicatrix; but I have used it occasionally for its hypnotic and antispasmodic effects to assist the medicines taken by the mouth. It did produce these effects satisfactorily at the commencement, but afterwards even one ounce of it was not sufficient to affect the patient in the least. The use of other medicines in this case requires a brief explanation. Although this was a severe case, the patient improved very rapidly at the commencement under the use of opium and arrack, and on the fifth day of admission he was able, with some difficulty and assistance, to sit up on his cot. On that day he took also more nourishment than before, which was not digested and gave rise to diarrhœa on the same evening, and with this the patient became worse, and was in the same condition as on the first and second days. Opium did not satisfactorily check the diarrhœa, and while the patient was still suffering from the latter he became subject to occasional attacks of fearful dyspnœa from spasms of the diaphragm. Both these symptoms (diarrhœa and dyspnœa) were very successfully checked by chlorodyne, and there was also some improvement in the symptoms of tetanus under its use. After a few days, however, chlorodyne began to produce tympanites whenever used in sufficient quantity to make an impression on the progress of the disease, and was therefore discontinued. Tincture of hyoscyamus was next used, which was useful for a few days, and then lost its effect upon the patient. Chloral hydrate was the last medicine tried in this case, and it proved itself so agreeable and useful that it was continued until the patient was free from tetanic symptoms. It was used only once (at bedtime) in twenty-four hours, in half-drachm doses, and it not only induced a sound sleep every night, but also diminished the rigidity of the muscles. Though the disease in this case was declining when the chloral was used, yet I am satisfied that it distinctly hastened the recovery. It is necessary to state here that in case No. 13 the wounded phalanx, and in case No. 14 the cicatrix or old wound were removed at the beginning of the treatment; and I have no doubt that these operations had also a share in the recovery of the patients.

In conclusion of my remarks on these cases of traumatic tetanus, I wish to offer a few words on the use of opium as a prophylactic in the same disease. In my Annual Report for 1869 I made the following remarks on this subject:—

"During the last few years I have used opium in every case of wound and ulcer in which there was a fear or suspicion of tetanus, and the result is that the latter has not occurred in any case up to the present moment. This was not the case before I began the use of opium, when tetanus did occur occasionally among the patients suffering from wounds and ulcers; so that the complete exemption enjoyed by my patients during the last few years from so dangerous a disease as

traumatic tetanus is directly attributable to the use of opium. Not only opium, but the timely administration of any other medicine possessing the combined action of anodyne and antispasmodic will, I think, produce the same effect; but at present my experience is limited to the use of opium. Opium may not produce the desired effect if the source of irritation be very great, as is often the case in compound comminuted fracture of large bones, but in less severe cases of wounds and ulcers, if tetanus is to occur, it will be warded off by the use of that drug."

I still continue the same plan of treatment, and have greater confidence in it than before. It is now more than six or eight years since I first employed it, and up to the present date traumatic tetanus has not occurred in any case in which opium was used. During the last year the disease occurred in one case of wound in which no opium or any other anodyne or antispasmodic medicine was used. This is case No. 14 which I have spoken of repeatedly in the above remarks. The wound in this case was in the scrotum, and it was neither deep nor painful, and I therefore did not think it necessary to use opium. The patient, however, was attacked with tetanus very unexpectedly, which was very severe and obstinate, and did not yield without the greatest difficulty. Had opium been used in this case, I am sure that the patient would not have suffered from tetanus.


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# Medical Times and Gazette.

SATURDAY, DECEMBER 26, 1874.


## ANNUS MEDICUS 1874.

The year 1874, considered from a medical point of view, will probably be especially remembered as remarkable for the occurrence of an unusual number of serious outbreaks of typhoid fever, and for the public interest excited by these outbreaks. Cambridge, Lewes, Over Darwen, Claytou-West (near Huddersfield), Brierly Lane (Bradford), and many other places have been visited by Medical Inspectors from the Local Government Board to discover the causes of epidemics of typhoid, and to advise on measures of arrest and prevention. The daily papers have published notices of the course of some of these outbreaks, and of the reports of the Inspectors on them, and so have called and kept alive public attention to their occurrence and their serious character. Professor Tyndall also powerfully contributed to rouse the public to action by his famous letter to the *Times*—a most able and lucid popularisation of Dr. Budd's well-known work on Typhoid Fever; though in one way the letter was a mischievous one, for, fascinated by the book, the Professor wrote as though he were a special pleader retained on the side of the plaintiff in the cause of "Budd *v.* Typhoid." There have also been severe epidemics of scarlet fever in London, Carlisle, and elsewhere; so that things have in unusual and remarkable degree and force coincided to lead the public mind to recognise the importance of preventive medicine, and to prepare the way for sanitary legislation. No exciting political topic occupies public attention, and altogether a grand opportunity is offered to the present Government to win lasting fame and gratitude by earnestly legislating for the public health; and we have a right to expect that this opportunity will not be thrown away, nor wasted on small measures, when we recollect that the Premier is the statesman who two years ago, in his famous address at Manchester, said—"I think public attention ought to be concentrated on sanitary legislation. I cannot impress upon you too strongly my conviction of the importance of the Legislature and society uniting together in favour of these important results. After all, the first consideration of a Minister should be the health of the people." Brave words! let us trust they will be followed by great deeds; and that if this year the necessity of sanitary reform has been made unusually urgent by the prevalence of preventable diseases, next year may be made famous by the enactment of large and wise public health measures, and even by the appointment of a Public Health Department of Government.

At the end of January the political world was startled into feverish activity by the sudden and unexpected dissolution of the old, and consequent summons of a new, Parliament. Candidates and constituencies were alike unprepared for the struggle of a general election, and in consequence the election was "a scramble for seats" rather than a considerate return of carefully selected representatives. The result, however, was a complete transference of political power, and the return of Mr. Disraeli to office at the head of a strong Parliamentary majority. As the new Premier had more than once or twice spoken and written well and decidedly on the great importance of public health measures, most notably when he gave utterance to his celebrated saying, "*Sanitas sanitatum, omnia sanitas;*" and as his colleague Lord Derby had also shown an intelligent appreciation of the value of sanitary science,—it seemed as if we might hope that we had at last a Government that would make the public health a primary subject of earnest and careful legislation. The new Government had, however, but little time for the preparation of work before Parliament met, and therefore, we may suppose, no very important or comprehensive sanitary measures were brought forward; still, several Sanitary Acts were passed and received the Royal assent—viz., the Sanitary Laws Amendment Act, the Registration of Births and Deaths Act, the Public Health (Ireland) Act, the Factories Amendment Act, the Vaccination Act (1871) Amendment Act, the Slaughter-houses, etc., Act, and the Alkali Act (1863) Amendment Act.

The Sanitary Laws Amendment Act contained fifty-nine clauses, and it may perhaps be said, shortly, that the most important of them are those which include provisions for enforcing by *mandamus* any order made by the Local Government Board against a defaulting sanitary authority; and for imposing, under penalty, upon urban sanitary authorities the duty of cleansing streets, privies, and ashpits; and those having reference to the closing, or the regulated use of, wells, tanks, or cisterns, public or private, or any public pumps, the water of which is so polluted as to be injurious to public health; hospitals or places for the reception of the sick; the destrue-

tion of infectious bedding, clothing, etc.; the search for unsound food and drink; and to false representations with respect to the present or recent existence of infectious disease by persons letting for hire, or showing for the purposes of letting for hire, any house or part of a house.

We cannot attempt to give here any description, however brief, of the rest of these Acts, each of which has been already noticed in our pages, but it must be allowed that the whole of the sanitary legislation of a Government the policy of which was wittily described by an opponent as a "policy of sewage," does not amount to much; and we are still left to sigh and long for, among other sanitary reforms, a codification of our sanitary laws.

The only other new Act of Parliament to be noted by us is the Apothecaries Act Amendment Act. This enables the Society to form part of any Conjoint Examining Board constituted under the provisions of the Medical Act of 1858; to select their examiners from the whole medical profession or from any scientific body; and to strike licentiates off their lists on the same grounds as they can be struck off from the Medical Register; and apprenticeship is no longer necessarily required of candidates for the Apothecaries' licence.

The General Medical Council met on July 9, and for the first time met in premises of their own. The Government did not see fit to recognise that the public character of the "General Council of Medical Education and Registration" entitled that body to be provided with apartments rent-free; but they did at last admit the claims of the Council to a certain measure of public assistance, and granted them a thirty-one years lease of the premises in Oxford-street, previously known as the Royal College of Chemistry, at a yearly rental of £300, the Government undertaking to expend £1500 in adapting the building to the wants of the Council. The Council has the expense of fittings and furniture, and the premises will cost them about £460 a year; so that there does not seem to be cause for any marked amount of gratitude to the Government; but at any rate the Council is to be congratulated on having at last convenient and commodious premises of their own, instead of still having to hire the undignified and wretchedly insufficient quarters in Soho-square. The new premises were still in a very unfinished condition, and that they were so far ready that it was possible for the Council to meet in them during this session was mainly, if not almost entirely, due to the constant and untiring exertions of Dr. Quain. Four new members of the Council were present: Dr. Warburton Begbie succeeded Sir Robert Christison as one of the Crown representatives; Dr. Rutherford Haldane took his seat as representative of the Edinburgh College of Physicians, in place of Dr. Alexander Wood; the Universities of Edinburgh and Aberdeen sent Dr. Turner instead of Dr. Macrobin; and Mr. Macnamara appeared as the representative of the Irish College of Surgeons instead of Mr. Hargrave. Dr. Paget opened the session, and at the same time took leave of the Council, with a most admirable and dignified address—admirable alike for taste, style, and truth. He pointed out with much satisfaction the proof that the labours of the Council for the improvement of medical education had not been unsuccessful; but at the same time he admitted that the credit of the good that had been done was not due to the Council only, other influences having been working at the same time in the same direction, and among these he mentioned with generous appreciativeness the public spirit shown by the licensing bodies in improving their examinations, and the influence of the medical press in stimulating the profession to aim ever at better and still better work; while in connexion with the large all that has still to be done, he spoke in weighty and eloquent words of the responsibilities of the Council, "responsibilities to be measured by men's lives and men's sufferings." Dr. Paget then retired from the Council, but was immediately and unanimously re-elected President, and was happily able to accede so far to the earnest wishes of his colleagues as to consent to continue to preside over them during the session; and accordingly, at the termination of the business on the last day, he resigned office, and the Council recorded, in terms applauded by the whole profession, their great obligations for his valuable services, which had been "so ungrudgingly devoted, at large sacrifices to himself, for the good of the Council and the profession; for the uniform courteousness of his demeanour, for the impartiality of his decisions, and for the discretion of his conduct in the chair." We may add here that Dr. Acland was then elected President, and that Professor Rolleston has since been chosen to succeed him in the Council as representative of the University of Oxford.

The main business that occupied the Council was the consideration of the Reports of Visitations of Examinations. These, which it will be remembered had been for a while discontinued, had, in compliance with the decision of the Council in 1873, been resumed, and each visitation had been made by two visitors—one a member of the Council, and one chosen by the Executive Committee from outside the Council. The visitors not members of the Council were Drs. A. W. Barclay and Bristowe, and Messrs. Busk, Holmes, and H. Power; and the examinations visited were those of the Society of Apothecaries, London; the Royal Colleges of Physicians and Surgeons of Edinburgh (primary and second conjoint examinations); and the single examination of the same Colleges; the Faculty of Physicians and Surgeons of Glasgow, and Royal College of Physicians of Edinburgh (second conjoint examination); and the first and second examinations for the diploma of the Faculty only; the University of Glasgow; the Royal College of Surgeons in Ireland, and the Queen's University, Ireland. The reports, valuable and important as they undoubtedly all are, are unequal in value, some being much fuller and more minute than others; and we venture to think that it would be more fair to the examining bodies, and would add to the value of these documents, if some uniform plan of report could be fixed on.

The reports were considered in succession in committee of the whole Council, and, as a rule, it was simply decided to send copies to the bodies severally concerned for their "consideration and remarks"; but in the case of the Royal College of Surgeons of Ireland the Council added a resolution mentioning that it had "had its attention drawn to the many sources of imperfection in the examinations," and expressing its trust that the Report of the Visitors would receive serious consideration on the part of the authorities of the College. It was proposed that a like course should be taken also with regard to the Queen's University in Ireland; but after a very animated discussion, in which Sir Dominic Corrigan naturally took a prominent part, the Council decided, in consideration probably of the many excellent points noted in the examinations by this licensing body, to simply send the reports for consideration and remarks. And perhaps we may suspect that a stronger course would not have been taken with regard to the Royal College of Surgeons of Ireland had not the authorities of that body deemed it their duty to deny the visitors any opportunity of perusing and examining at their leisure the written answers to the examination questions. The Council resolved that the visitations of examinations should be continued, the Executive Committee being again empowered to select the visitors; and it may be added here, that at a meeting held in November the Executive Committee appointed the physicians and surgeons, not members of the Council, who should with members of that body visit, for one year from November 1, the examinations of the following bodies—viz., the Royal College of Physicians of London, the Royal College of Surgeons of England, the Universities of

Oxford, Cambridge, Durham, London, Aberdeen, Edinburgh, St. Andrews, and Dublin, the King and Queen's College of Physicians in Ireland, and the Apothecaries' Hall of Ireland.

The Reports of the Visitations of Examinations, and the discussions on them, showed that it is by no means uncommon for candidates to present themselves for examination in a deplorable state of unpreparedness and ignorance; and, as steps towards remedying this and other imperfections in teaching and examining, the Council, after the consideration of the reports had been concluded, passed some highly important resolutions on those subjects. The first, and we think the most important, of these was a "recommendation" that each of the certificates presented by students before admission to the several licensing bodies "should include a statement from the teacher or teachers that the candidate had satisfactorily attended examinations from time to time held on the subject of study to which the certificate relates." There can be no question that in some schools, and by some teachers, a great deal of trouble has hitherto been taken to test the degree in which students have profited by the teaching, and to find out whether or no they were fit to present themselves for examination by the licensing boards; but we may hope that for the future every teacher will consider it his duty to refuse certificates of attendance on lectures unless the students have satisfactorily attended the class examinations. This will undoubtedly add largely to the labours of the teacher and to his responsibilities; but it would be difficult to over-estimate the importance of attempting to insure that the student shall work thoroughly and steadily throughout the whole period of the medical curriculum. It must be added that at present teachers have not the power of requiring the students to "satisfactorily" attend the class examinations; that power must be given them by the Licensing Bodies. Another resolution expressed the opinion of the Council "that it is desirable" that in the examinations on some of the subjects of the curriculum—"such, for example, as Botany, Zoology, Chemistry, and Materia Medica—the area of examination should be limited and defined." This resolution originated in the feeling, shown during the consideration of the visitors' reports, that the examination questions on these subjects are not seldom vague, or too large, or "over the heads of the candidates," and the general opinion of the Council was that it would be much better to require the student to know well a certain part of each of these subjects than to leave him to attempt to gain a superficial knowledge of the whole. Some important resolutions having reference to the conduct of examinations were also passed, but for these we must be content to refer to the full reports we gave of the proceedings of the Council.

During the session it was officially reported to the Council that the Senate of the University of London had received from the Home Secretary the approval necessary to enable the University fully to co-operate in the Conjoint Medical Examination scheme. Mr. Bradford, the representative of the Society of Apothecaries, described the difficulties which that body had encountered in their efforts to meet the desire expressed by the Council in 1872 that they might find means to enable them to join in the Conjoint Board scheme, and he reported that the Society had succeeded in obtaining an enabling Bill, and were ready to give a pledge that if they became part of the Conjoint Board "they would not (except under compulsion of a *mandamus*) admit anyone to a separate examination." These two bodies—the University of London and the Society of Apothecaries—having obtained Acts of Parliament removing their legal disabilities, the Council might reasonably expect to hear that a complete Conjoint Board scheme for England was ready to be carried out; but instead of this they learnt that the Royal College of Surgeons was still hampered by a "legal difficulty." So late as the middle of July in this year the Council of that College discovered, through fresh legal advice, that "the College cannot legally take part in the proposed scheme for a Conjoint Examination, unless, for that examination, the members of the Court of Examiners appointed by the Council of the College, or so many of them as may be required for the examination in Surgery, are *ex officio* the examiners in Surgery." We have ourselves more than once, when commenting on the Conjoint Board scheme, pointed out this difficulty: in our numbers for July 6 and August 3, 1872, especially, we stated that competent legal authorities maintained that, according to the Charter of the College of Surgeons, that body could not legally take part in the proposed arrangements for the appointment of examiners in Surgery; and it is unfortunate that the Council of the College should not have been advised of this till July this year, when all other difficulties in the way of the English scheme had been overcome, and when at the same time it was too late for the College to go to Parliament for help in its turn. Still, the President of the Medical Council "hoped" that the College difficulty would be got over, and the Council passed a resolution expressing "their satisfaction" at learning that "the arrangements for carrying out the scheme for a Conjoint Examining Board for England are so far advanced as to render it probable that the scheme will be in operation during the present year." The College difficulty has not yet been overcome, and the scheme is no nearer being in operation than it was when the Medical Council rose, though, indeed, notice has been given—by the College of Physicians, at any rate—that "every candidate for the College licence who shall commence his professional study on or after the first day of October, 1874, will be required 'to pass the professional examination conducted by the Conjoint Examining Board.'"

Not a word was received by the Council from any of the licensing bodies of Scotland as to the probabilities or possibilities of the formation of a conjoint scheme for that division of the kingdom; and in Ireland the Queen's University still stands aloof, and is as silent on the subject of conjoint schemes as are the Scottish bodies, while the College of Surgeons in Ireland has also met with difficulties in attempting to carry out its desire of joining in the scheme for an Irish Board.

Various other matters of more or less importance occupied the attention of Council during the nine days that the session lasted, but nothing of sufficient importance to be reproduced here; very full reports of the business and the discussions were given in our numbers for the month of July.

Not long after Parliament met, the "Corporation of the Royal College of Physicians of London," at the instance of the late Dr. Anstie, presented a memorial to the Premier on the overcrowded state of the dwellings of the poor in London; on the great evils, physical and moral, arising from this; and on the impossibility of remedying this state of things by private enterprise; and this memorial led, or helped very largely to lead, to steps being taken by the Houses of Legislature to secure that for the future railway companies shall be obliged to provide houses for the populations they may displace. At the Comitia of the College held on March 30, the Fellows again, and for the fourth time, unanimously elected Sir George Burrows to the office of President, all the duties of which he has discharged with admirable dignity, efficiency, and courtesy for the past three years.

Besides giving their usual very pleasant and attractive *conversazione*, the President and Fellows of the College, reviving a custom which had for a few years fallen into abeyance, gave a banquet in their fine library on the evening of Midsummer-day, when about eighty of the Fellows, with many guests eminent in divinity, law, and science, enjoyed a most delightful social evening.

The external stone-work and the roof of the College having

become seriously dilapidated, a repair fund was opened, to which the Fellows of the College subscribed some £1200, and during the autumn the necessary restorations were perfectly carried out.

At the annual election of Fellows into the Council of the Royal College of Surgeons, the choice of the electors fell on Messrs. John Marshall and John Hilton, who had offered themselves for re-election, and on Mr. Alfred Baker, of Birmingham.

Both the Colleges were much occupied during the year through the labours of their joint Committee of Reference, and in receiving the reports of that somewhat domineering and dictatorial body, in settling the scheme and the regulations of the English Conjoint Examining Board; but while all has gone on smoothly at the College of Physicians, a new difficulty has been discovered by the Council of the College of Surgeons, and, as we have noted above, that body has very lately announced that the Charter of the College will not permit of its joining in the scheme unless its Council has in effect the power of appointing all the examiners in Surgery for the whole of England. That this difficulty will be removed, surmounted, or eluded, we do not doubt; things have gone so far that it seems hardly possible that the Conjoint Board scheme should not be tried in England, though the experiment will be a most imperfect one so long as in the two other divisions of the kingdom the old system of a multiplicity of licensing boards remains unaltered; and, indeed, it is said that the Committee of Reference has proposed to effect a compromise by altering the constitution of the new Board of Examiners. We believe they propose that there shall be forty examiners—ten to be appointed by the College of Physicians, ten by the College of Surgeons, ten by the Society of Apothecaries, and ten by the Universities; and as, if we understand aright, the Charter of the College requires the appointment of examiners of Surgeons, not of examiners in Surgery, the difficulty *may* be got over. We believe that the Council of the College has also agreed to take the necessary steps to obtain an enabling Act of Parliament.

The forty-second annual meeting of the British Medical Association was held on the 11th and three following days of August, at Norwich, where it met once before in its young days, twenty-eight years ago, when it was only a provincial association. The meeting, which will be long remembered, we imagine, as a highly successful and very pleasant one, was presided over by Dr. Copeman, of Norwich, who in his interesting and instructive address dwelt much on the paramount necessity of well-considered and wisely carried out sanitary measures, and suggested that the Association might help to enlighten and guide the Government on the best way of selecting and appointing medical officers of health. He also expressed a hope that some of the strength and force of the Association might be employed to aid the advance of medical science, as, for instance, by making grants to encourage the practical study of physiology and therapeutics; and the Association, having now an income of some £8000, felt able to make a larger move than usual in the direction suggested by voting a sum of £200 for distribution in grants to aid in researches in medicine and in the allied sciences. All the principal addresses were of a very high character, and it surely will be long ere men forget the delight and profit derived from Dr. Russell Reynolds' elegant and eloquent Address in Medicine, full of practical wisdom, and of philosophical warnings against the dangers of neglecting the study of man as man, and of each man, woman, and child as differentiated individuals; from Mr. Cadge's admirable Address in Surgery, devoted to the consideration of the prevalence and causes of lithiasis and stone; from Dr. Matthews Duncan's vigorous and rather startling Address in Midwifery, which we may perhaps most shortly describe as an address on the actual and great mortality in childbirth and childbed; and from Sir James Paget's perfect little gem of an address on opening the Surgical Section. Many admirable papers were read in the various sections; but the most notable of them, and that which excited, and is still exciting, the greatest amount of interest and discussion in Norwich, was Dr. Beverley's very able paper on "Hospital Hygiene; illustrated by references to the Norfolk and Norwich Hospital in its Past, Present, and Future,"—the outcome of which, it is to be hoped, will be the restoration of that Hospital to the excellent sanitary character it was noted for in times past.

The Association is to meet next year in Edinburgh, under the Presidency of Sir Robert Christison.

The British Association for the Advancement of Science met at Belfast on August 19. The meeting was a highly successful one, and many very able and instructive addresses and lectures were given. Among them we may mention Sir John Lubbock's most interesting and attractive lecture "On Common Flowers in relation to Insects"; Sir William Wilde's "Account of the Early Races of Mankind in Ireland"; and Professor Redfern's opening address in the Section of Biology, "On Recent Advances in Anatomy and Physiology"; but the specially distinguishing features of the meeting were the addresses by the President and Professor Huxley. The very able address or lecture given by the latter was "On Theories of Life and Motion," and was mainly a very lucid account of the physiological labours and views of Descartes, showing how marvellously he was in advance of the knowledge of his day, and how his views are the foundation of all that is now known of the physiology of the nervous system and of the relation between physical and mental phenomena. The President, Professor Tyndall, delivered a very striking address on the atomic theory of the origin of things: it was an admirably lucid and able review of the ever-renewed and ever-baffled research among the foundations of life, which has its rise in "the desire of the mind to see every natural occurrence resting upon a cause," but was taken from the stand-point of science only; and the address has been fairly said to have had for its subject "the relation and attitude of modern science to religion." Some parts of the address were very eloquent, and some parts mysterious, or at least open to misapprehension, as particularly the Professor's "confession" that he discerned in matter "the promise and potency of every form and quality of life." More than once he has complained, or declared, that his confession of faith has been misunderstood; but he has not as yet condescended so far as to make his confession of faith intelligible to less robust intellects.

The Social Science Association held its meeting at Glasgow at the end of September. The introductory address of Lord Rosebery, the President, was very good, giving a full and graphic picture of our social condition, and its remedies; and he was well and ably seconded by Lord Napier and Ettrick. But the most notable address delivered during the Congress was Dr. Lyon Playfair's inaugural discourse in the Public Health Section on the progress of sanitary reform: it was a most admirable and vigorous exposition of the disease-preventing and resisting power of cleanliness, of "purity or cleanliness in the house, the air, and the water, and genuineness in the food and clothes"; a highly valuable and useful, because scientific, practical, and comprehensive paper. One very noteworthy point in it was his very decided condemnation of the "vulgar distrust of doctors" shown by one of his colleagues in the late Government in the administration of the Health Acts, and his unsparing remarks on the "utter confusion" that had been the result of that distrust.

The St. Andrews Medical Graduates' Association exists now only as a kind of latent force. The anniversary session was held on December 30 last year, when the Council of the Association

reported that the University had appointed a London committee of its General Council "to watch over the interests of the University in the event of any action, either in Parliament or otherwise;" and in consideration of this, and seeing that the chief objects for which the Association was founded had been accomplished, a resolution was passed dissolving the Association, and empowering Dr. B. W. Richardson to reorganise it "if the necessity for such reorganisation should hereafter arise." Under the circumstances, and looking at the large number of medical societies in London, we fully recognise the wisdom of the decision; but we confess to parting with the Association with some regret, not only because, being well organised and well managed, it did well and thoroughly whatever work it undertook, but because it was a social as well as a scientific and medico-political body.

Dr. Lockhart Robertson, the President, being unhappily prevented by illness from being present during the session, the chair was taken by Dr. Richardson; and in the unavoidable absence of the President it seemed well and fitting that the Association should at its last session be again presided over by Dr. Richardson, who originated it in 1867, and was for four years its most able and energetic President.

An International Sanitary Conference, called together at Vienna for the purpose of considering the question of quarantine in relation to cholera, held its first meeting on July 1, and finished its work on August 1, having held twenty sittings. It was attended by delegates from a large number of States, and included among its members many of the highest European authorities on cholera. The delegates from Great Britain were Dr. Dickson (Physician to the Embassy, Constantinople) and Dr. E. C. Seaton. The questions discussed were divided into three sections—the first relating to the endemicity and mode of transmission of cholera; the second, to measures of quarantine in time of cholera; and the third to the institution of an International Epidemiological Commission. We cannot give here a full summary of the important conclusions arrived at, but must content ourselves with recording that the Conference unanimously affirmed that Asiatic cholera exists in an endemic state in India only; that it is transmissible by man; that it may be propagated by personal effects brought from an infected place, especially such as have been used by persons sick of cholera; and that it can be propagated by drinks, particularly by water. Some delegates were also in favour of affirming the transmissibility of cholera by foods, by animals, and by merchandise. It was unanimously affirmed that no fact is yet known which proves that cholera can be propagated to a distance by the atmosphere alone, whatever be its condition; that the surrounding air is the principal vehicle of the generative agent of cholera, but that the transmission of the malady by the atmosphere, in the immense majority of cases, is restricted to the close vicinity of the focus of emission; that in free air the generative principle of cholera rapidly loses its morbid activity; and that science does not yet know any certain and specific measures of disinfection, but that the great value of hygienic measures is to be recognised, combined with the use of the substances regarded as disinfectants.

The Conference held, by a large majority, that land quarantines are impracticable and useless; but as regards maritime quarantines, approved the measures recommended by the Constantinople Conference (1866), particularly as to the employment of them in the Red Sea and the Caspian Sea; and for European ports recommended a rigorous system of medical inspection. It was also decided by a large majority that ports at the mouths of rivers come within the category of maritime ports, and that therefore the measures recommended for these ports apply to them; and that the system of medical inspection recommended by the Conference can be adopted for ships in rivers having cholera on board.

The project for the establishment of a permanent International Commission on Epidemics at Vienna was adopted unanimously, and articles agreed upon as to its object, functions, constitution and operation, ways and means, posts and missions, etc.

The several medical societies were active, and fruitful of good papers and good discussions; but the great events of the societies' session were the debates at the Pathological and Clinical Societies on cancer and pyæmia. The subject of the special debate at the younger of the two societies was introduced by a most admirable and valuable paper by the President, Mr. Prescott Hewett, "On Pyæmia in Private Practice," on January 23, and the discussion on it was most ably carried on during four crowded meetings. The speakers by no means kept to the subject of pyæmia in private practice, and there was much difference of opinion shown as to the meaning of the term "pyæmia." But it was clearly proved that pyæmia does occur in private practice as well as in hospitals; and that though it is the scourge of wards and hospitals that are impure, ill-ventilated, or overcrowded, yet it may be surely kept away from properly-cared-for wards and well-attended patients. The precautions that must be sedulously taken in order to secure protection from this deadly disease, and the power of prophylaxis, were ably pointed out and illustrated; and if, as the outcome of the discussion, these powers are generally recognised and carefully brought into play, the result will be very great and lasting good. At the Pathological Society the debate was excited by a most able and closely reasoned address by Mr. Campbell de Morgan, "On the Local Origin of Cancer"; and at this Society also the debate was carried on through four evenings. Mr. Campbell De Morgan's views were sustained by such skilled pathologists and able speakers as Mr. Jonathan Hutchinson, Dr. Moxon, Mr. Henry Arnott, Sir William Gull, and others; while the "constitutional" theory of the origin of the disease found most powerful and formidable advocates in Sir James Paget and Sir William Jenner, the President of the Society. The impression produced by Sir James Paget's remarkably skilful and eloquent speech will be long remembered, as will also be the instructive and experience-fraught address of the President; and the whole debate, indeed, was remarkable for the ability and talent shown by the speakers. Perhaps it may be fairly said that the result of it is that neither the local theory nor the constitutional theory, pure and simple, is tenable; but that the greater amount of truth is to be found between, or in a compromise between the two. Both the debates will repay frequent study; they both point to the weak places in our knowledge of the two diseases discussed; and they both show that, in order to obtain a full knowledge of a disease, hospital practice only is not sufficient, but that the fuller information and riper experience obtained in long-continued private practice are also most important and necessary.

It having been decided by the Supreme Court in Scotland that the charters of the Scotch universities do not entitle women to study and graduate therein, early in May a memorial, signed by twenty-six of the professors of the four Scotch universities, was presented to the Premier, praying that he would take into immediate consideration the difficulties in the way of women desirous of matriculating in medicine at the Scotch universities, and expressing the wish that universities should be enabled, if not required, to make arrangements for the education of women. The memorial was signed by only four medical professors, and these were all extra-academical teachers. Mr. Cowper-Temple gave notice of motion for the introduction into the House of Commons of a Bill "to remove doubts as to the powers of the universities of Scotland to admit women as students, and to grant degrees to women," and "to confer

on the university court of each university in Scotland powers to enact regulations to admit women as students; to provide instruction for women, either in separate classes or otherwise; and to grant degrees to women"; but the Senatus of the University of Edinburgh agreed by a large majority to petition Parliament not to pass the Bill, but to substitute for it a Royal Commission to inquire into the subject at issue; and three of the most eminent medical professors in the same University also petitioned the House of Commons against the Bill, and stated that while the attempt made by three of the professors of the Faculty of Medicine of the University to teach women in separate classes had been necessarily discontinued on account of the additional labour it imposed, the teaching of medicine to a mixed class of young men and young women would be "opposed to the convictions of a vast majority of the educated classes of the country." When the time arrived for Mr. Cowper-Temple's motion in the House of Commons, the forms of the House precluded it from being put, though a discussion or Parliamentary conversation was held on the subject, and much expression was elicited of sympathy with the project of extending to women unlimited provisions for their higher education; but we do not think that the advocates of free and unconditional medical education for women—that is, their right to be educated with male medical students—gained anything by the discussion.

Since then, we are glad to say, the advocates of the women-doctors' movement have adopted the course which has all along been pointed out as the only right and decent course to be taken to provide for the medical education of women—they have established, or perhaps we should say are attempting to establish, a regular medical school for women. We do not believe that women are fitted for the responsibilities, anxieties, and physical wear and tear of medical practice; but if they persist in believing the contrary, we have nothing to say against their making the experiment, beyond what we have so often said elsewhere: if they will study medicine, let them do so,—but apart from male students. We have many times expressed our surprise and regret that they should persist in exciting special and avoidable opposition by trying to force their way into the ordinary medical schools, instead of establishing a medical school for women. If it is at all true that a mass of English women, of all ranks of life, groan in misery and shame under the necessity of having to seek medical aid from men, and that many of their own sex are eager to relieve them from that oppression by themselves entering the medical profession, it seems absurd to suppose that means could not be found to establish a special school, and to maintain it till the number of its students should make it self-maintaining. But we suspect that the only substantial difficulty in the way of opening such a school has been the financial one. Of course, such of the would-be medical women and their supporters as repudiate with scorn the recognition of any kind of differentiation between young women and young men must look upon the establishment of the new school as a miserable truckling to expediency; and the objection has also been made that such a new and special school would not be able to command the services of a staff of teachers of tried and proved ability and repute, and that its *alumnæ* would therefore labour under grave disadvantage; but this objection is surely not seriously put forward! No new movement can reasonably expect to leap over the day of small things, and to spring to life at one bound, endowed with the strength and energy of maturity and the prestige of success. The school has obtained the services of a very good staff, but has undoubtedly many and serious difficulties yet to overcome—such as the acquisition of a museum and other necessary appliances, and the obtaining hospital practice such as will be recognised by the licensing bodies. But if a *bonâ fide* attempt to solve the medical woman problem is meant, we wish it success.

On May 12, at the Annual Convocation of the University of London, a motion in favour of the admission of women to degrees in the University was carried by a majority of eighty-three to sixty-five votes. The debate on the subject was prolonged and warm, and the opponents of the motion, and especially Dr. Quain, resisted it on physiological grounds, and insisted that women are physically unable to compete with men, and that the strain of educational competition with young men would be seriously injurious to young women. At the beginning of July the subject was brought before the Senate of the University, and after full consideration and discussion it was resolved, by seventeen votes to ten, "That the Senate is desirous to extend the scope of the educational advantages now offered to women, but it is not prepared to apply for a new charter to admit women to its degrees." Among the eminent men who voted in the majority were, it was reported, Sir George Burrows, Sir William Gull, Dr. Sharpey, Dr. Quain, and Dr. Sibson; but may it not be very fairly said that the University of London is, to say the least, not called upon to take a maternal interest in, or exercise a maternal care over, the health of the young women of England? She has nothing whatever to do with the health of those who present themselves for her degrees. She is not even an educating body, not a true *Alma Mater*, but only an examining and degree-conferring organisation, meant to act without regard to the modes or places of education, the race, or creed of scholars: why should she trouble herself about their sex?

The Metropolitan Hospital Sunday Fund was again collected on the second Sunday in June. Sermons were preached, and collections made, in nearly 1300 places of worship (about 200 more than in 1873), and the receipts from this source amounted to close upon £28,100; "donations from sundry workmen and others" brought in about £1434; and some other small sums made the total receipts, at the date of the Committee's report, £29,678 13s. 2d. This exceeds the amount collected in 1873 by more than £2000, and the Committee observe that this result proves "that the movement is not only recognised, but established." The expenditure, including all charges of every kind, amounted to £926 17s. The Distribution Committee awarded £25,307 12s. 3d. to fifty-four general and special hospitals and eight institutions, and £3040 18s. 4d. to forty-five dispensaries. The reports of the Committees—the General Purposes Committee, and the Committee of Distribution—are admirably clear and business-like, and explain the principles and considerations which determined the several awards made; and these, which we noticed so recently as last week, will, we doubt not, be generally considered just and satisfactory.

In April a committee was formed, in Leicester-square, for the purpose of organising a Hospital Saturday, on which funds for the hospitals and dispensaries of the metropolis might be collected from the working-men. An opinion was very generally and strongly entertained that if there was to be a Hospital Saturday movement—and such a movement has been successful in Liverpool and Manchester,—it should be under the guidance and management of the same body as the Hospital Sunday Fund, and that it would be a great waste of force to have two distinct organisations for what was in reality one purpose—that of obtaining pecuniary help for the medical charities of the metropolis. The Lord Mayor, therefore, convened two public meetings, with the view of ascertaining whether the Leicester-square, etc., Hospital Saturday Committee would co-operate with the Council of the Sunday Fund. It was not, however, found possible to effect any union of the two bodies, and the Council felt compelled to resolve that the working-men of the metropolis had better be left to take any independent action they might think desirable in regard to a Hospital

Saturday Fund. This was a wise and almost unavoidable conclusion, for a Committee of the Council had met not only a deputation of six members of the Leicester-square Hospital Saturday Committee, but also six working-men especially appointed to confer with the other two bodies, and it appeared that each of these working-men's committees claimed to be the true representatives of the working classes. So the Hospital Saturday Fund Committee went on distinct from the Hospital Sunday Council, and, as at first, held its meetings in Leicester-square, in a house called the St. John's Hospital for Diseases of the Skin. They worked hard,—that at least must be allowed,—and Lord Brabazon and some other earnest and philanthropic noblemen and gentlemen did their utmost to make the movement a successful one. October 17 was chosen as the Saturday for the collection, and on that day collecting-boxes presided over by ladies were placed at various stations, while, on and before the day, boys in uniform paraded the streets with collecting-boxes, and there were open-air and other public meetings, processions, and performances at the Agricultural Hall and at theatres; but the whole sum collected was only something over £6000, while the expenses came to £1500. Nothing more need be said to show that the movement was not a success, or to prove that, for some reason or other—and the reasons are not far to seek,—the Committee of Management failed to obtain the confidence of the genuine working-classes. The £4500 that remains over the expenses has not yet been distributed; and it is only fair to add that the Committee of Management of the St. John's Hospital for Diseases of the Skin have determined not to apply for any share of it.

The Governors of the London Hospital are expending £30,000 on the enlargement of that building. The Grocers' Company have presented to the management the munificent donation of £20,000 for a new wing of the Hospital, to be called "The Grocers' Wing"; and an extensive post-mortem room and mortuary, with a ventilating shaft and water-tower, and fitted with every modern improvement, is being constructed at the cost of £10,000. The mortuary is made with catacombs round it, each niche to hold one coffin, and to close with an iron door, having a slate affixed to bear the name, etc., of the temporary occupant. The new wing has been designed by Mr. Charles Barry, is to be "fire-proof" throughout, to be supplied with hydrants and every other necessary on each floor, and will contain beds for 200 additional patients.

We must also record here that the Dental Hospital of London has been moved from its dingy abode in Soho-square into a new, admirably arranged, and most convenient building in Leicester-square.

At the end of June two new societies were formed for the purpose of providing, and providing for, nurses for the sick poor in London. One, "The National Association for Providing Trained Nurses for the Sick Poor," was established by the Order of St. John of Jerusalem in England after prolonged and careful inquiry into, and consideration of, the organisation and experience of various nurse-training institutions in London and the provinces. The scheme of the Society is a wide and comprehensive one, embracing, besides training in nursing work, an elementary education of an industrial character, and "education in habits of order and discipline, cleanliness, and truthfulness." It purposes also to provide a home where nurses in training at the London hospitals, or employed as district nurses, may lodge, and where a register of trained nurses requiring employment may be kept. Other nurse-training institutions are invited to co-operate, so as to promote a community of interests and action; and it is hoped eventually not only to provide a large body of trained nurses, but, further, to establish a scale of rewards for the nurses, according to their merits and length of service, and a system of pensions for old and invalid nurses. The second society, formed at Grosvenor House, has also for its object the granting "of annuities to worn-out trained nurses of at least fifteen years' service." Both societies were established under excellent auspices, will probably be amalgamated, or at least will work together, and should meet with very wide and efficient sympathy and help. They well deserve, and ought to command, success.

We lately informed our readers that the Board of Medical Studies, Cambridge, had drawn the attention of the University to the subject of State Medicine; and, in a very important and comprehensive report, had advised the University to establish examinations and grant certificates of competency in so much of State Medicine as is comprised in the functions of medical officers of health, the examinations not to be confined to members of the University, but to be open also to any legally qualified (registered) practitioner of medicine who had attained the age of twenty-four. The report has been discussed at a special meeting of the members of the Senate, and the proposed scheme was supported by the Vice-Chancellor, by Professor Humphry, and, we believe, by the Regius Professor of Physic, but will not, we understand, be officially submitted to the Senate till February next. The report recommends that at present the examinations should be limited in the way we have mentioned, but contemplates the extension of them at some future time, so as to comprehend the whole of State Medicine. It will be noticed that it is proposed that the University of Cambridge shall grant a *certificate of competency* to any registered medical practitioner of twenty-four years of age who can pass a certain examination while the University of Dublin, it will be remembered, is prepared to grant a certificate of qualification to such of its Doctors in Medicine as pass an examination in the subjects relating to public health; and the University of Edinburgh proposes to confer the degrees of Bachelor and Doctor of Science, in the Department of Public Health. It is said that the University of London is also going to move in this matter, the Senate having prepared a scheme for examinations in public health subjects, but that it is not yet determined whether to offer only a certificate of proficiency to successful candidates or a degree.

The very important post of Coroner for Central Middlesex was left vacant early in November by the lamented death of Dr. Lankester, who had filled the office well and ably for twelve years, having been elected after an arduous contest in 1862. Five candidates for the vacant appointment at first appeared in the field, three of whom were medical men, and two solicitors, but on the day of nomination, November 17, these were reduced to three—namely, Dr. Hardwicke, who had been for twelve years Deputy Coroner in the district; Dr. Diplock, the Coroner for West Middlesex; and Mr. Boulton, a solicitor. The battle between Law and Medicine for the Coronership had to be again fought, and it seemed but too probable that, should the medical interest be divided between two candidates, Law would win; but on November 18 Dr. Diplock, to his great credit, withdrew, as it appeared that Dr. Hardwicke was the most popular medical candidate; and on the day of election, the 19th, Dr. Hardwicke was returned by a majority of 255 votes. When Dr. Lankester was elected his majority over the solicitor who contested the election against him was only forty-seven. As Dr. Hardwicke's majority is larger by more than 200 votes, we trust it may be looked upon as certain that public opinion is decidedly in favour of the principle we have strongly upheld, and which was first publicly contended for by the late Mr. Wakley, that it is of the utmost importance to the public that the office of coroner should be held by a medical man; and the public are to be congratulated on the triumph of that principle in this instance. Dr. Hardwicke is also to be congratulated heartily on the result, as showing that the fairness of judgment, good

temper, courtesy, and diligence he had always shown in the discharge of his duties as Deputy Coroner had been fully appreciated by the profession and the public.

The history of the Ashantee War must be so fresh in the minds of our readers that we need not refer to it here except for the purpose of recording the honours which on its conclusion were conferred on medical officers engaged in it. As is happily generally the case, the campaign was conducted with admirable foresight, decision, and skill, the general in command, Sir Garnet Wolseley, showing that he possesses in a marked degree all the qualities of a first-rate general; and the troops, as is always the case in our wars, exhibited the spirit, endurance, and courage—both active and passive—that are so characteristic of British soldiers. But the war was differentiated from other wars by being especially a "doctor's war," the most redoubtable and deadly of the foes that had to be encountered being foes that must be met by preventive and curative medicine. And the doctor's part in the campaign was, according to universal acknowledgment, admirably well played. We cannot here describe the remarkable efficiency of all the medical arrangements, or the perfection, and indeed luxury, with which the hospital-ship the *Victor Emmanuel* was fitted out,—they have all been recorded in our pages during the war; but we may note that Sir Garnet Wolseley always spoke in the very highest terms of the services of the Medical Department, and that the importance of the services rendered by the medical officers was recognised in warm terms by the War Minister when the Houses of Parliament accorded their thanks to the forces engaged. We cannot afford space to give the list of well-earned promotions made for services rendered during the campaign, but we are glad to be able to again record that her Majesty was graciously pleased to give orders for the following promotions in, and appointments to, the Most Honourable Order of the Bath:—Deputy Surgeon-General Anthony Dickson Home, C.B., V.C., to be Ordinary Member of the Military Division of the Second Class, or Knight Commander of the said Most Honourable Order. Staff Surgeon Ahmuty Irwin, R.N.; Surgeon-Major Thomas Macdougall Bleekley, M.D.; Staff Surgeon Henry Fegan, M.D., R.N.; Surgeon-Major Robert William Jackson; Surgeon-Major Charles Benjamin Mosse, African Medical Service, to be Ordinary Members of the Military Division of the Third Class, or Companions of the said Most Honourable Order.

We have also the satisfaction of recording the bestowal of honours and distinctions on other members of the profession. The announcement that Her Majesty had conferred a baronetcy on Dr. Burrows was received with unmixed gratification by the profession at large. He has reached his present eminent position by a long and most honourable career spent in the service of the profession and the public, and commands the full confidence of both; and the profession felt it as a compliment to themselves when Mr. Gladstone informed Dr. Burrows of her Majesty's gracious intention to grant him the baronetcy, "in recognition of his high position in the Royal College of Physicians, and of the services rendered by him to his great profession." Dr. C. J. B. Williams has been appointed one of her Majesty's Physicians Extraordinary; and Inspector-General John Davidson, M.D., C.B., one of her Honorary Physicians. Dr. Wilson Fox has received the appointment of Physician-in-Ordinary to the Duchess of Edinburgh, and Dr. Arthur Farre that of Physician-Accoucheur; while Dr. Fayrer has been appointed Physician-in-Ordinary to the Duke. Sir William Muir, K.C.B., M.D., has been made Director-General of the Army.

The eminent services rendered by Dr. Murchison in connexion with the milk-spread epidemic of typhoid fever in some parts of the West-end of London last year were gratefully acknowledged by the presentation, on April 18, of a numerously-signed address, accompanied with an elegant testimonial; and the value of the well-deserved compliment was enhanced by the presentation being made by Sir Thomas Watson, who performed his office with all his well-known felicity and elegance of expression.

We have again recorded during the year the deaths of many of our brethren who had attained, some a great and more a ripe old age. Dr. J. T. Baumgartner had reached, we believe, the age of ninety-seven, and Mr. C. W. Smerdon that of eighty-eight; Dr. Neil Arnott and Mr. David Thomson died at eighty-five; Dr. A. Jacob, at eighty-four; Mr. James Davis, Mr. Joseph Swan, and Dr. Michael Galeani, at eighty-three; Dr. John Whiting, Mr. Onslow Andrews, Dr. W. T. Keal, Dr. Humphry Sandwith, and Dr. John Miles, at eighty-two; and Dr. R. E. Grant, at eighty-one; while Mr. Thomas Wormald, Mr. J. Marriott, Dr. G. Beaman, Dr. H. D. C. De la Motte, Dr. A. Kilgour, Mr. H. Brown, Dr. J. M'Lennan, Dr. C. J. Fox, Mr. James Bird, Dr. John M'Kenna, Mr. E. Cutler, Mr. E. Bowdage, Mr. R. T. Hunt, Dr. W. W. Fisher, Dr. John Trotter, Mr. Blackstone, Dr. E. W. Duffin, Mr. Abraham Wood, and Dr. John Savory had all reached the age of seventy, and some of them nearly that of eighty, before "God's finger touched them, and they slept." Some of them had retired from active professional life, and were resting ere taking leave; but not a few were still in harness and employing their ripe experience in practice. But we have also had the sad task of recording the deaths of many who were taken from among us while they were still in full and vigorous work, and of some who had been members of the profession for a few years only. Among the latter we may mention Dr. Andrew Dodson who died at the age of twenty-two; Mr. Berthold Schlesinger, at twenty-one; Mr. H. Gosset Brown, at twenty-three; Dr. J. J. Phillips, at thirty-one; Dr. R. Cowie, Dr. J. T. Dickson, Mr. C. D. Pearless, and Mr. John Foster, at thirty-two; and Dr. F. Woodman, at thirty-four. Of those who died later in life, but still when years of good work might have been hoped for from them, Dr. Forbes Winslow died at sixty-three years of age; Mr. Tamplin, Dr. E. Charlton, and Dr. Lankester died at sixty; Mr. Francis died at fifty-nine, one of the victims of the Norwich railway accident; Dr. W. V. Pettigrew, at fifty-eight; Dr. Frederick Bird and Dr. T. Ballard, at fifty-six; Dr. W. Bates and Dr. E. Smith, at fifty-five; Mr. W. Morris, at fifty-three; Dr. C. Hayman and Dr. Goodsir Chuckerbutty, at forty-eight; Dr. P. Allen, at forty-seven; Mr. G. Webster, at forty-six; Dr. W. S. Roche, at forty-four; Dr. J. Warner, at thirty-five. And none of our readers will have forgotten that Dr. F. C. Webb died at the age of forty-seven, to our own deep and lasting sorrow, a few hours after he had finished the editorial supervision of last year's last number of this journal; and our first number for this year contained a true and eloquent record of his life and labours, from the pen of Dr. W. B. Richardson, his friend and fellow-worker for many years. And we refer our readers to that picture of one of whom it is there well said that "he wrote no line he could ever have wished to be erased; passed no judgment he could ever have desired to recall."

We have not yet mentioned one whose death caused a shock of painful surprise to numbers, here and abroad, who had never seen him, and who is sincerely regretted far and wide, as well as deeply mourned here at home. Dr. Anstie, who died on September 12, at the age of forty, from septic poisoning, had achieved widely-reaching fame as a sterling, truth-loving and seeking hard worker, and a skilled and powerful writer, and has left behind him, as proof of his talents, learning, and industry, work, scientific and practical, of lasting value. And while, as was truly said of him in the *Times*,—"his hatred of oppression or wrong-doing, his love of truth for its own sake, his generous and chivalrous character, had endeared him to

all who were brought within the range of his personal influence," so that he is mourned with a deep sense of personal loss by many and warmly attached friends; and his early death is also felt to be a serious loss to medical science and art.

Turning now to the history of the journal during the year, we give, as usual, a summary of its principal contents, and venture to think that it will show that its high reputation as a useful and faithful record of medical work and progress has been well maintained.

Under the heading of "Original Lectures," we have been enabled to give our readers Clinical Lectures—by Dr. Henry Thompson, "On a Case of Carcinoma of the Liver and Left Supra-renal Capsule, with Ascites," and "On a Case of Perforation of the Trachea by an Enlarged Caseous Gland"; by Dr. T. Grainger Stewart, "On Waxy and Syphilitic Disease of the Liver," and "On Nervous Diseases with Muscular Twitchings"; Lectures, by Professor T. Laycock, "On the Clinical Observation and Practical Estimate of Morbid Temperature"; by Dr. Clifford Allbutt, "On Tapping of the Chest"; by Dr. Lewis Shapter, "On Aneurism of the Aorta"; by Dr. B. W. Richardson, "On the Pathological Results of Pectous Change in Colloidal Structures," and "On Purpura Hæmorrhagica"; Clinical Lectures by Dr. Balthazar Foster; by Dr. Anstie, "On Sciatica and its Treatment," and "On Facial Neuralgia with Hysteria"; Dr. J. Braxton Hicks's "Lecture introductory to Dystocia"; Dr. J. E. Pollock's "Lectures on Certain Clinical Varieties of Consumption"; Dr. G. W. Poore's "Introductory Lecture to a Course of Lectures on Public Health"; and Dr. Letheby's "Address to the Medical Officers of Health"; we have continued Dr. Eustace Smith's "Commentaries on Disease in Children"; and have given Clinical Lectures, by Mr. J. W. Hulke, "On Cases of Fracture of the Spinal Column," "On Cases of Strangulated Hernia," and "On a Wound in the Palm of the Hand"; and by Mr. Christopher Heath, "On a Case of Gunshot Injury," "On a Case of Excision of the Knee," "On Two Cases of Cancer of the Breast," "On Compound Fracture of the Skull," and "On Cases of Colotomy," and "On Calculus in the Female"; Notes of a Lecture, by Dr. Symes Thompson, Gresham Professor of Medicine; and Mr. T. Annandale's "Clinical Remarks on the Treatment of Organic Stricture of the Urethra"; and we have also been able to give a Lecture by Professor Sée, "On the Mode of Action of Iodine and its Preparations," and one by Professor Kussmaul, "On Bulbar Paralysis and its Relations to Progressive Muscular Atrophy."

Under the title of "Original Communications," we have again had the privilege of giving to the profession valuable papers by many of its most able and most trusted members; and among these we may enumerate papers—by Dr. Fayrer, on "The Malarial Splenic Cachexia of Tropical Climates," on "Ununited Fracture of the Humerus," and on "Indian Ring-Worm and Goa Powder"; by Dr. A. E. Sansom "On a Case of Mitral Stenosis with Cardiac Hypertrophy and Dilatation and a Presystolic Murmur"; by Dr. J. C. Thorowgood, on "The Nature and Treatment of Asthma"; by Dr. Handfield Jones, on "Cases of Neurosal Headache," on "Two Cases of Hydatid Tumour in the Abdomen," and on "Cases of Obscure Nervous Disorder"; by Dr. W. H. Pearse, on "Illustrations of Epidemics"; by Mr. Spencer Watson, on "A Case of Neuro-Paralytic Keratitis," and on "The Advantage of Opening the Capsule before making the Corneal Section in Operations for Senile Cataract"; by Dr. T. C. Hayes, on "Gangrene of the Lung in Children"; by Mr. Gaskoin, on "Lepra Græcorum," and other subjects; by Mr. J. Ashburton Thompson, on "The Medicinal Dose of Free Phosphorus"; by Dr. Ord, "On the Relation of Uric Acid to Gout"; by Mr. Henry Morris, "On a Case of Pyæmia, with Chronic Movements of the Face, Tongue, and Right Hand, in Country Practice"; by Mr. W. W. Wagstaffe and by Dr. S. G. Stevens, on "A Case of Ovariotomy under Difficulties." We have also published two of Dr. B. W. Richardson's "Opera Clinica," "Clinical Observations" by Mr. Quain, and Dr. Joseph Jones's "Outlines of Observations and Investigations on Yellow Fever"; communications from Dr. J. W. Ogle, on "Nurses for the Sick Poor"; from Mr. T. Spencer Wells, on "Ovariotomy in Holland"; from Sir G. Duncan Gibb, on "The Vocal Organs in Living Centenarians"; from Dr. Gavin Milroy, on "The Treatment of Leprosy"; from Professor Max Von Pettenkofer, on "The Recent Outbreak of Cholera in Munich"; from Mr. J. Bowater Vernon, on "An Unusual Form of Intractable Progressive Ulceration of both Corneæ"; from Dr. H. Thompson, on "Cirrhosis and Carcinoma of the Liver, with Heart Disease and Ascites"; and from Mr. C. F. Maunder, on cases of "Tumour of Lateral Portions of the Lower Jaw removed without External Wound"; from Dr. E. Long Fox, on "Cerebro-Spinal Sclerosis"; Mr. E. L. Hussey, on "Hæmorrhage from the Palm of the Hand, treated by Pressure"; and Surgeon-Major F. B. Hogg, M.D., on "Enteric Fever"; also Dr. James Russell's "Notes on a Case of Hemiplegia from Softening of the Brain after Ligature of the External and Internal Carotids"; Dr. Julius Althaus' paper on "Electrotonus of the Ovaries in the Treatment of Amenorrhœa"; Dr. E. Gray's "Cases of Endocarditis proving Fatal with Symptoms of Blood Poisoning"; Mr. J. Woodman's "Case of Acute Spinal Disease—Myelitis or Hæmorrhage?"; Dr. W. Strange's papers "On the Etiology, and on the Exciting Causes, of Enteric Fever"; Mr. Messenger Bradley's "Three Propositions on the Classification of Syphilis, and on the Nature and Treatment of the Tertiary Forms"; Mr. J. T. Clover's "Case of Fatal Syncope during the Administration of Chloroform"; and Mr. Teevan's "Case of Internal Urethrotomy." And, further, we have had the pleasure of publishing Mr. James Spencer's "Cases illustrating the Surgery of Wounds of the Deep-seated Arteries of the Leg"; Dr. John Macpherson's "Early Notice of Cholera in India"; Sir John Rose Cormack's "Remarks on the Treatment of Infantile Convulsions of Reflex Origin"; Dr. J. C. Murray's paper "On the Therapeutic Value of Soft Water in the Treatment of Urinary Calculi and Indigestion"; Dr. H. Courtenay Fox's "Statistics of Scarlatina"; Dr. R. Liveing's "Remarks on Alopecia Areata and Tinea Tonsurans"; and Dr. Tilbury Fox's communication on the same subjects; Dr. H. Green's "Notes on the Pathology of Pulmonary Phthisis"; Mr. Donald Napier's "Something New (or believed to be so) in Dental Surgery"; Dr. George Balfour's "Case of Systolic Murmur in the Pulmonary Artery"; besides communications from Messrs. C. Higgens, F. G. Masterman, John C. Lucas, D. C. McVail, and C. F. Egan; and Drs. C. T. Williams, John Wortabert, T. Stretch Dowse, J. C. L. Carson, John Haddon, John Lewtas, and other valued contributors.

We have had the honour of continuing the admirable and most instructive "Clinical Reminiscences" of Dr. Peyton Blakiston, and our readers would, we are sure, be grateful to that experienced and sagacious physician could he be persuaded to give them somewhat more from his stores of knowledge; and we have published other valuable papers which were not placed under the head of either "Lectures" or "Original Communications"—such as Professor Bouchardat's "On the Hygiene of Hospitals"; Jurgensen's "On the Slighter Forms of Typhoid Fever"; Landois's on "Transfusion with the Blood of Different Kinds of Animals"; Dr. Ed. Hitzig's "Researches on the Brain"; Mr. J. Hutchinson's "On the Use of Mercury in Syphilis"; and Sir A. Taylor's "On Man with reference to Climatology"; papers "On the Cholera Epidemic of 1872 in Northern India"; "On the Lock Hospitals of Bengal"; on "Physiological Researches into the Digestive and Absorbing Powers of the Large Intestine"; on "A Case of Poisoning by Colchicum in Beer"; on "The

Eucalyptus Globulus"; on "Sanitary Matters in the South of England"; on "The Treatment of Leprosy with Gurjun Oil"; on "The Constant Water-Supply in London"; on "Sanitary Appliances at the International Exhibition"; Dr. J. B. Wilson's "Inquiries into the Causes of Goître"; and Dr. Cleland's paper "On the Relations of Science to Philosophy"; some very interesting letters and papers of John Hunter's; Dr. V. Richard's "Experiments with Strychnia in Snake Poisoning"; some very instructive "Notes on Foreign Hospitals and Schools of Medicine"; "Letters from the Gold Coast"; a continuation of the charming "Letters from Madras"; and some admirably written and instructive "Medical Notes of a Visit to the Wine Districts of Western France."

In our Editorial Articles our desire has been to notice and comment on whatever touched or concerned the honour or welfare of the profession, or that affected its interests, or the relations between the Public and Medicine; to give information on Scientific subjects; and to remark on any topic of the day that seemed to interest our brethren as medical practitioners or as scientific men. Thus we have given articles on "Vivisection," and on "The Societies for the Prevention of Cruelty to Animals"; on "Scientific Dietaries," on "Dietaries of Schools for the Upper Classes," and on "Vegetable Food"; on "Medical Men in Parliament," and on "The Duty of the Medical Elector"; on the "Discussion on Cancer at the Pathological Society"; on the "Discussion on Pyæmia at the Clinical Society," "Pyæmia at Norwich," "Dr. Beverley and Pyæmia," and on "Hospital Construction"; on "The Expedition against Coomassie," and "The Moving and Camping of Troops in Tropical Climates"; on "Hospital Committees," and on "The Attendance of Medical Officers at Hospitals"; on "Inhumation or Cremation," "Bishop Wordsworth's Sermon on Burning or Burial," and "Dangerous Burial Grounds"; on "The Tichborne Case"; on "Sewer-Gas Pneumonia," "Sanitary Reform and its Opponents," "Sanitary Condition of Oxford," "Insanitary England," "Sewage Grass and Sewage Milk," and on "Professor Tyndall on Typhoid," on "The Dwellings of the Poor," and like subjects; on "The Educational Disabilities of Women," "Professor Goldwin Smith on the Rights of Women," "The House of Commons and the Female Medical Question," "Miss Jex-Blake and the University of Edinburgh," and on "The School of Medicine for Women"; on the Hospital Sunday and Hospital Saturday Funds; on "Medical Witnesses at Police-Courts," "Medicine as a Profession," "Medical Experts in the Hands of a Barrister-at-Law," and on "Retrospective Medicine"; on "The Anomalies and Mysteries of the Adulteration Act," and "The Conflict of Analysts"; on "Nurses for the Sick Poor," and "Wanted, a Wet-Nurse"; on "The Apotheosis of the Atom," "Lucretius," and "Science and Atheism"; on "The Glasgow Medical School," "Educational and Charitable Schemes in Scotland," and the like; on "Degrees in Public Health," on "Health at the British Museum," "Factory Medical Supervision," and kindred topics; and various scientific subjects, as "Angina Ludwigii," "Pernicious Anæmia," "Bloodless Surgery," "The Treatment of Diabetes with Carbolic Acid," "Blue Pus," on Iodide of Potassium, and on Mercury in Syphilis; the "Artificial Production of Rickets and Osteomalacia," "The Open Treatment of Wounds," on "Professor Laube on the Treatment of Dyspepsia," on "The Nature and Origin of Typhoid Fever," on "Fever Germs," and on "Modern Midwifery"; and articles on "The International Cholera Conference," on "Cholera in England and India," and "Cholera at Munich"; on "Dr. Lyon Playfair's Address," on "Mr. Stansfeld on the Contagious Diseases Acts," on "The Law of Homicide," on "Doctors and Druggists," and on "War in its Medical Aspect."

Our Hospital Reports have given useful and interesting cases in medicine and surgery, and shown the latest modes of treatment. The "Topics of the Day" have told of whatever of special interest, professionally or socially, has been going on at home; and our notes "From Abroad" of what our Continental brethren have been chiefly writing and talking about. The "Reviews" have helped to keep our readers *au courant* with the medical literature of the day; and they have been informed of such New Inventions and new or improved articles of diet as we have judged likely to prove useful. We have been very glad to have been able to publish more of Mr. J. F. Clarke's most interesting "Autobiographical Recollections"; and our readers will be well pleased to learn that we are promised a continuance of them next year.

Lastly, we heartily thank all who have so ably contributed to the success and value of the journal; and to them and all our brethren, wheresoever they may be, we wish "A Merry Christmas and a Happy and Prosperous New Year."

## THE WEEK.

### TOPICS OF THE DAY.

The Society of Medical Officers of Health have, through their President, Dr. Vinen, forwarded to the Local Government Board some suggestions with reference to the by-laws regulating the slaughter-houses in the metropolis, which, from the practical knowledge of the medical officers on the subject, must be of considerable value, and no doubt will receive the attention which, from such a source, they deserve. The Local Government Board have sent a copy of these suggestions to the Metropolitan Board of Works—by whom the by-laws are made,—for any observations which the latter might wish to make on them. It is believed that, if these suggestions are adopted, the by-laws regulating the business of slaughterers of cattle will be more effective.

There is no doubt that the providing a proper and ample means for the storage of water, and the prevention of its unnecessary waste, are precautions which are greatly neglected. In a paper Mr. Bailey Denton recently read before the Social Science Association, he stated that, through neglect of storage, thirty times as much water is wasted annually as would supply the population for the next fifty years.

The retention by Dr. Hardwicke of the offices of Medical Officer of Health and Analyst for Paddington, now that he has been appointed the Coroner for Central Middlesex, was discussed at the last Vestry meeting. Dr. Hardwicke was in attendance, and in answer to a question if he intended to resign these local appointments, which the meeting seemed to think he should do, said he had considered the matter and would give further consideration to it. He intended to appoint a deputy coroner; if he then found it incompatible for him to hold the two appointments, he would resign that of the Medical Officer and Analyst. The subject was then adjourned. We think, with all due deference to the ability and skill displayed by Dr. Hardwicke in the offices of Medical Officer of Health and Analyst, that the retention of these offices now that he is Coroner for the district would be a mistake. It is true that his predecessor, Dr. Lankester, combined with his office of Coroner that of Medical Officer of Health for St. James's, Westminster. This was generally considered to be a mistake, and by no means to be regarded as a precedent.

At a meeting of the Metropolitan Asylums Board, held last Friday, a statement in considerable detail was read from the Hampstead Hospital Committee against the proposed building. In the course of a prolonged discussion on the subject, Mr. Wyatt observed, in which others concurred, that there was an impression that the managers had some animus against the inhabitants of Hampstead, which he desired to correct. They were simply carrying out the provisions of the Act of Parliament under which they were appointed.

The Plumstead Board of Health has addressed the War Department on the prevalence of diphtheria at Woolwich, which, it is stated, has arisen from the overcrowding of the soldiers' huts on Woolwich-common. Fifteen or sixteen children have died from the disease.

The Dublin Corporation appear at length to be fully alive to the importance of carrying out sanitary improvements on a scale which will, no doubt, remedy the present deplorable insanitary condition of the city. Government having offered to advance them £50,000 as a loan upon liberal terms to assist in carrying out the main-drainage of the city, they have resolved by a large majority to apply for the offered sum.

Professor Huxley will undertake the duties of the chair of Natural History at the University of Edinburgh in the ensuing summer session, in the place of Professor Wyville Thomson, who is still engaged in the *Challenger* surveying expedition.

We understand that the First Lord of the Admiralty, in consequence of the grievances recently laid before him by a deputation of the medical profession, has proposed to the Treasury some improvements in pay and position. Should these proposals be approved, several senior Staff Surgeons will be promoted to the rank of Deputy Inspectors-General of Hospitals and Fleets.

We greatly regret to announce the death of Mr. John Foster, who was well known as the able assistant of Sir Henry Thompson. Mr. Foster received the injuries from which he died by an explosion of gas in the house of a patient.

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### THE APPENDIX TO THE REPORT ON THE HEALTH OF THE NAVY, YEAR 1873.

The Appendix to the Statistical Report on the Health of the Navy for 1873 contains some "Remarks by Staff Surgeon W. Ross, M.D., of H.M.S. *Fisgard*, on the Physical Examination of Second-class Boys raised for the Navy, and Recruits enlisted for the Royal Marine Light Infantry in London." The limit of age for the entry of second-class boys into the navy is from fifteen to sixteen years and a half; height from four feet ten and a half inches to five feet one inch; chest measurement, twenty-nine to thirty inches. During the year 1872, 1508 candidates were examined, of whom 829 were found fit and 679 unfit; in 1873 the numbers were 1034 fit and 890 unfit; whilst for the six months of the present year—up to the close of June—530 were pronounced fit and 480 unfit. As regards the class of London boys from which the navy is generally recruited, it is not to be expected that they can compare favourably, in a physical point of view, with boys in the same sphere of life brought up in the country. Good evidence, however, of what London boys may become under the influence of improved diet and habits of cleanliness and discipline has been afforded to the medical officers in those boys brought for examination from the training-ships *Warspite* and *Chichester*, stationed in the Thames. In these vessels, after a short training, they usually turn out smart sailor-looking lads, in general intelligence and adaptability for a sea life far superior to country boys. The rejection of London boys proper amounted to 49·8 per cent., of country boys to 20·0 per cent., of Greenwich Hospital School boys to 24·2 per cent., of Marine Society's boys to 21·44 per cent., of *Chichester* boys to 17·24 per cent., of Industrial School boys to 28·57 per cent., and of the whole to 46·12 per cent. From a carefully compiled table which is given, the previous occupations of over 4000 candidates are shown, and from this it is gathered that over 2000 have been employed at out-door work, either as errand-boys or labourers. Another table shows the causes of unfitness: these are of the ordinary kinds, but it is specially remarked that varicocele of the right side must be of very rare occurrence, as, in 237 rejections from this cause, 236 were for the disease on the left side, while in only one individual was it seen on the right side; in this case it was noted that the action of the heart was abnormally slow, that the superficial veins of the neck and back were injected, and that there was a varicose condition of the veins of the left leg. One case of rejection was for undue obesity; the candidate was a pot-boy, aged fifteen years and a half, five feet five inches in height, weighing 163½ lbs., with a chest-girth of thirty-five inches and three-quarters.

"A Contribution to the Study of Ozone; epitomised from Ten-and-a-half Years' Observations Afloat and Ashore," has been furnished by Staff-Surgeon J. Mulvany. Our space does not admit of our giving all Mr. Mulvany's remarks on this subject, but in conclusion he expresses an opinion that no disease can be clearly traced either to the superabundance or scarcity of ozone. Also that its most marked influence appears to be exercised over the generative organs; and as it tends to increase the chances of fecundation, the probability is that it imparts to the primary elements of life an accession of developmental force, which counteracts the transmission by the parents of that impaired bodily vigour which is always induced by the condition of heat, humidity, and clouds, etc., under which the manifestations of ozone are most liberal. And in this way ozone may be looked on as an important agent in the prevention of the degeneration of the human race.

Some "Notes and Statistics relating to the Boys under Training for the Navy in 1873," contributed by Staff-Surgeon P. W. Rolston, of H.M.S. *Impregnable*, conclude the volume which has recently been made public.

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### THE VALUE OF DEATH-RATES AS A TEST OF SANITARY CONDITION.

At a meeting of the Statistical Society held last week, a paper was read by Mr. Humphreys, F.R.S., "On the Value of Death-rates as a Test of Sanitary Condition." Premising that those who declare that census enumerations and birth and death registers are unreliable bases for calculation, support their charges by elaborate figures derived from the same source, and lose sight of the fact that if those figures are unreliable their own charges are open to the same objection, the author thus classified the contested points:—That no account is taken of the proportion of the two sexes in a population, although the life-table death-rate is 25·05 per 1000 among males, and only 23·90 among females. That the influence of the distribution of a population at different groups of ages, which depends in a great measure upon the birth-rate, and upon the proportion of emigration or immigration, is so great as to destroy the value of the general death-rate, uncorrected for this disturbing influence. The impossibility of calculating reliable death-rates upon mere estimates of population between the decennial censuses. That the death-rates in towns are so favourably affected by immigration of healthy young adult lives, in addition to the exchange of good for bad lives at the expense of the country, that the comparison of urban and rural death-rates is valueless in dealing with these objections. By exhaustive analysis and comparison of the census returns of 1871, as applying to certain selected counties and towns, it was established, in the first place, that the influence of the varying proportion of the sexes in a population in disturbing the value of the general death-rate is so inconsiderable that it may safely be ignored. Secondly, that the extreme limit of disturbance produced in any population by the variety of age-distribution does not exceed 2 per 1000 in the rate of mortality; and, except in a few cases, the limit as affecting town populations is only 1 per 1000. Thirdly, that the age-distribution indispensable to a high birth-rate, apart from the effect of the birth-rate itself, which assists in the same direction, actually produces a lower normal rate than the age-distribution which prevails where the birth-rate is low. Fourthly, that both high birth-rates and high death-rates are induced by a large propor-

tion of urban population, but arise from distinct causes, and are not dependent the one on the other. Fifthly, that however desirable it may be to have census enumerations taken more frequently than once in ten years, past experience shows that estimates of population do not to any considerable extent interfere with the value of the Registrar-General's figures for the purposes they are intended to serve. Sixthly, that although the rate of mortality in London and other towns between the ages of fifteen and twenty-five, especially among females, is lower than in the surrounding districts, it is dangerous to assume that the number of deaths of town residents occurring elsewhere is sufficiently large to interfere with the value of the Registrar-General's figures for general deductions; and, finally, that not one of these disturbing influences, or the combined result of them all, would so affect a death-rate calculated upon the "national system," as to warrant its being disregarded as a test of sanitary condition.

### HEALTH OF SCOTLAND.

The deaths of 2897 persons were registered in the eight towns of Scotland during November last, of whom 1476 were males and 1421 females. This is the greatest number recorded during any month of November since the commencement of the Registration Act, and, allowing for increase of population, is 235 above the average for the month during the last ten years. A comparison of the deaths recorded in the eight towns shows that during November the annual rate of mortality was 17 deaths per 1000 persons in Aberdeen, 24 in Edinburgh, 27 in Leith, 28 in Greenock, 32 in Paisley, 33 in Dundee, 35 in Glasgow, and 35 in Perth. Of the 2897 deaths, 1332, or 46 per cent., were of children under five years of age; in Aberdeeen 22 per cent. of the persons who died were under five years of age, in Edinburgh 33, in Paisley 36, in Greenock 37, in Perth 38, in Glasgow 51, and in Dundee 53 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 860 persons, constituting 29·7 per cent. of the whole mortality. This rate was exceeded in the towns where scarlatina was most prevalent—viz., Glasgow, Perth, Dundee, and Leith,—where the deaths from these diseases constituted 32·3, 33·8, 37·0, and 38·3 of their respective mortalities. Scarlatina still continues the most fatal epidemic, but appears to be on the decrease, 490 deaths, or 16·9 per cent., having been registered from that cause, as compared with 570 deaths, or 22·5 per cent., registered during October.

### SICKNESS AND MORTALITY IN IRELAND.

The deaths registered in Ireland during the quarter ended September 30 last amounted to 19,636, showing 365 in excess of the number registered during the corresponding period of last year, and affording an annual ratio of 1 in every 67·7, or 14·8 per 1000 of the estimated population, which rate is 1 per 1000 over the average for the third quarter of the preceding five years. The deaths registered in Leinster during the quarter afford an annual rate of 17·6 in every 1000 of the estimated population of the province; the rate in Munster was 13·9, in Ulster 14·9, and in Connaught 11·7 per 1000. From seven of the principal zymotic diseases, the deaths exceeded by 682 those registered in the corresponding quarter of 1873, and by 172 those in the second quarter of the present year. Small-pox proved fatal in 128 instances, showing an increase of 5 as compared with the preceding quarter, and 98 as compared with the third quarter of last year. Scarlet fever, which has raged for more than twelve months, instead of manifesting any symptoms of abatement, continues its fatal progress with increased malignity. The deaths from this disease registered during the quarter numbered 976, showing an increase of 245 as compared with the preceding quarter, and of 568 as compared with the corresponding quarter of last year. Diphtheria caused 132 deaths, measles 121, whooping-cough 489, the various forms of continued fever 705, diarrhœa 521, and simple cholera only 35. That the sanitary condition of the country is in a very unsatisfactory state is evidenced by the fact of the increased mortality from the zymotic class of diseases. But sanitary improvements in certain districts have been considerable, and followed by the most satisfactory results.

### METROPOLITAN HOSPITAL SUNDAY FUND.

The Lord Mayor has given notice that a public meeting will be held on Monday, January 4, 1875, at half-past two o'clock, in the Egyptian Hall of the Mansion House, for the purpose of settling the preliminary arrangements for Hospital Sunday, 1875, and of electing the Council, etc., for that year. All ministers of religion in the metropolis and its neighbourhood, the authorities of the various hospitals and dispensaries, and others interested in the movement, are invited to be present.

## FROM ABROAD.

### A New Poultice.

The time-honoured linseed-meal poultice seems to be about to be superseded by as cleanly and efficacious a substitute as the Rigollot papers which have so recently displaced its old companion-in-arms the mustard-poultice. M. Lefort, reporting to the Académie de Médecine on a new form of cataplasm invented by M. Lelièvre, speaks in the highest terms of its excellence. It is prepared by imbibing two superimposed layers of wadding with a solution of *Fucus crispus*, and drying them in a stove after they had been submitted to strong pressure. In this way a sheet of the consistence of cardboard is produced, a portion of which is cut off when wanted, and soaked in hot water for fifteen or twenty minutes; this swelling it out and filling its tissue with a mucilaginous fluid. It has been tried in several of the hospitals to the great satisfaction of both patients and attendants. It can be prepared in large quantities beforehand, as when it has once been tried it will keep for a long time without undergoing any alteration.

M. Gosselin said that he had tried this cataplasm, and could speak as to its utility. When covered by an impermeable tissue, it does not dry up like other poultices, and especially it does not slide off from the part on which it is put, being sufficiently adherent to prevent its becoming displaced. M. Verneuil said that he had used it for several months in his wards, and has found it a most convenient application, for it can be cut and fashioned into any form or size desired. After being swollen out by soaking in warm water, it may remain in that state for twelve, eighteen, or even twenty hours; and after twelve hours it is as fresh as when first put on; so that it does not require renewal every five or six hours, like linseed meal. It does not give rise to any bad smell, becoming at last only slightly acid. It neither softens nor crumbles; and as it does not soil either the parts or the linen, etc., it comes in contact with, it secures an amount of cleanliness that is of great importance. It is also economical, as it enables us to dispense with compresses and poultice-cloths, which are so often badly washed and badly whitened. This latter point is also of importance as regards preventing the infection of wounds. M. Larrey believes that this emollient *fucus* is likely to be of valuable service as a cataplasm in military service for hospitals and ambulances, by reason of its ready transport and facility of conservation. M. Demarquay, who has frequently employed these cataplasms, agrees with M. Larrey that they will prove very useful in ambulances, taking up so little room and keeping so well. M. Leroy de Méricourt believes that these cataplasms will be of great service in the navy. On board a ship it is usually impossible to wash poultice-cloths, while, as linseed meal cannot be preserved, poultices have to be made of biscuit-dust, which produces very bad poultices. The inventor is of opinion that when his cataplasms are produced on a large scale they will be cheaper than linseed-meal poultices.

### Capillary Puncture of the Bladder.

M. Fochier, Surgeon to the Charité Hospital, at a recent meeting of the Lyons Society of Medical Sciences, read a paper (since published in the *Lyon Médical*, December 6) "On Capillary Puncture of the Bladder and the New Indications which it gives rise to and fulfils." He is a very warm advocate for an operation which he has found alike simple, efficacious, and harmless, and which admits of very frequent repetition over a small extent of surface. He passes under review the various circumstances under which it is indicated, viz.:— 1. Enlarged prostate, with complete retention or complicated with false passages or with inflamed or irritable urethra, as also partial retention, when catheterism is difficult or dangerous. 2. When the urethra is the seat of inflammatory or traumatic lesions. 3. In stricture that is impermeable or accompanied by false passages or ammoniacal catarrh. 4. In women in whom catheterism is impossible during labour, in retroversion of the uterus, and in the compression caused by tumours. M. Fochier's general conclusions are—1. Whether the retention be total or partial, the innocuity of capillary puncture (even in cases in which the peritoneum has been pierced by it) is such that it should interdict catheterism wherever this is impossible, difficult, dangerous, or very painful. 2. Wherever it would be of advantage not to allow of the urine passing along the urethra, and the bladder has risen above the pubes, puncture should be had recourse to, even when urine passes by the canal.

### M. Charcot on the Paraplegia of Pott's Disease.

In his first clinical "conference" at the Salpétrière for this session, M. Charcot delivered a very interesting lecture on the Pathological Anatomy and Treatment of the Paraplegia connected with Pott's Disease. This has not yet been published in full, but abstracts have been given in the *Gazette Médicale*, December 5, and in the *Gazette des Hôpitaux*, December 15.

The paraplegia which often accompanies this disease has been attributed to the compression of the cord by the curved spine. In the great majority of cases this is an error; in fact, all these curvatures are not accompanied by palsy, and it is not the most decided curvatures that are complicated by it; while, on the other hand, the paraplegia may exist before any curvature has taken place. Lastly, in a good many patients who have both the paraplegia and the gibbosity, the former is cured without the latter undergoing any modification. Pott himself believed in this independence of the two affections, and the recent researches of M. Charcot and his pupil, M. Michaud, have established the correctness of his views, and established the nature of the morbid process which precedes and explains the paraplegia.

According to these researches, there takes place in Pott's disease a "caseous osteitis," an osteitis which gives rise to true abscesses which distend the vertebral ligament, and in the end rupture it. The caseous matter is then spread along the spinal canal through the medium of the conjunctive tissue which separates the vertebral ligament from the dura mater, to which the Germans have given the name of *peri-méninge*. Under the influence of the contact of this matter the dura mater becomes inflamed and thickened (*pachyméningite caseuse*), and gives rise to a kind of growth which compresses and strangles the spinal cord. At this point the cord in its turn becomes inflamed, and a true *sclerosis* is produced with a more or less complete destruction of the nervous tubes. Thus, Pott's disease (save in exceptional cases of compression by the gibbosity or by a scale of bone) is a myelitis. And what is of interest to note is, that the lesions of the medulla, however considerable these may be, are not irreparable, and that the destroyed nervous elements may be reproduced, if not entirely at least sufficiently to re-establish the communication between the two segments of the cord, and consequently to restore sensibility and motion to the paralysed limbs.

Recovery from paraplegia in Pott's disease is not an exceptional occurrence, but almost the general rule. It takes place spontaneously, but may be hastened by appropriate treatment; and this treatment consists in the application of caustics opposite the gibbosity, and on each side of the spinal column, as already recommended by Pott. This is a purely empirical procedure; but its efficacy is too well established to allow of our depriving patients of the benefit it produces on this ground. M. Charcot prefers, however, the application of a small actual cautery, and a remarkable instance of its efficacy was narrated at the lecture. A Polish girl, aged fifteen, was sent from Warsaw to be under M. Charcot's care, and on passing through Berlin was seen by Langenbeck, who was informed of M. Charcot's intention to apply the actual cautery. He strongly dissuaded her parents from allowing this to be done. Nevertheless, she came to Paris, and after a second application of the cautery she was able to walk, and a fortnight afterwards she paid a second visit to Langenbeck, furnishing him with an irresistible proof that empirical treatment when accepted and wielded by men of science has its favourable side also.

It must not be supposed that this treatment succeeds as well in ordinary myelitis as in that which accompanies Pott's disease. Far from this, very serious accidents may result here from its employment. It is not very rare to find patients declaring that they have been able to walk a little until this treatment was applied, after which time they entirely ceased to be able to do so.

After the lecture M. Charcot exhibited several patients the subjects of Pott's disease, who, after having for some time suffered from paralysis, had recovered the use of their limbs consequently on two or three applications of the cautery. In most of these the paraplegia had existed for eighteen months. In none of them had there been congestive abscess. It sometimes happens that in the subjects of paraplegia the thigh becomes flexed on the pelvis, and the leg upon the thigh, the muscular contractions being so great that the patients are unable to walk even after the paraplegia has been cured. This inconvenience may be remedied by tenotomy.

## REVIEWS.

*Experimentelle Studien über die Verbreitung der Fäulnissorganismen in den Geweben, und die durch Impfung der Cornea mit pilzhaltigen Flüssigkeiten hervorgerufenen Entzündungserscheinungen.* Von Dr. Anton Frisch, in Wien. Erlangen: bei Enke. 1874.

*Experimental Studies on the Propagation of the Organisms of Putrefaction in the Tissues; and on the Inflammatory Processes of the Cornea caused by Inoculation of Fluids containing Fungi.* By Dr. Anton Frisch, of Vienna. Erlangen: Enke. With plates. 1874.

This important work is in direct connexion with that of Professor Billroth on *Coccobacteria septica*. It amplifies the investigations made by others (Eberth and Nassiloff) on the inoculation of fungi into the cornea of living rabbits, and gives an account of numerous experiments on the relation of the spread of organisms to putrefaction and inflammation of the organ. Analogous experiments show the spread of fungi in putrefying muscle and skin. We shall proceed at once to give some account of the most important experiments.

The cornea of a rabbit, freshly excised and placed in a so-called moist chamber (water being added and air having free access), presented bacteria on its epithelial surface after two days; and on the fourth day the same were to be seen in the deeper layers. The organ being exposed under similar conditions to a temperature of 40° C., was, in the short interval of twenty-four hours, pervaded with vegetations of bacteria to a degree which, at a temperature of 14° C., was not developed in less than three weeks. The route taken by the organisms in their growth was the spaces between the fibres of the cornea, and the cells with their canals.

The putrefaction of the cornea took a different course when the organ was kept free from air and in contact with water. After some time, which was much shorter at 40° C. than at the ordinary temperature, a large number of small, very bright, round corpuscles were to be seen throughout the tissue. From these the true foci of bacteria and micrococci were afterwards developed. These, therefore, the author considers as the germs of bacteria (*Dauersporen*), and he believes that they exist in the tissue while it is still in the living state. In this experiment the disintegration of the tissues required much more time than in the former. The development of organisms continues under these circumstances till the fifth week; it then ceases entirely, and the tissue remains for a long time in the same state.

Small pieces of muscle and of skin excised from the fresh body and subjected to similar conditions underwent analogous changes; but skin was found more resistant than muscle. The author believes that the fungi propagate in the putrefying tissue in the direction of least resistance (*Richtung der geringsten Wiederstands*); that the germs of bacteria come from the

air when it has free access; but that the air being excluded, the enduring germs (*Dauersporen*) are developed from germs already present in the living tissue.

When a number of incisions are made on the surface of the cornea of a living rabbit and carried into the substance of the organ, and a fluid containing bacteria is introduced into the conjunctival sac, vegetations of micrococcus are developed in the wounded spots within the next twenty-four hours. The form which they assume is characteristic and constant, and has been described by Nassiloff, Eberth, and Orth. The spots are recognised as small points of a grey or brownish colour, and present a stellate outline under the microscope. The centre is the wounded point, where the accumulation of bacteria prevails, and from this a large number of rays diverge in every direction and of various length. Careful observation will easily show that the centre as well as the rays consist of nothing but an immense number of single elements of fungi. That they are not products of inflammation is incontestably proved by the fact that the same figures are seen after inoculation of bacteria into the excised cornea. The spaces occupied by these figures are the result of a splitting of the tissue caused by the proliferation of the fungi which follows the course of the corneal fibres. Besides this form of propagation the fungi grow also in the cornea cells and even along the nerves.

In nearly every case inflammation in the cornea of the rabbit is the result of such vegetation of fungi. But the form and intensity of the inflammation are exceedingly variable. In one case we see only a slight opacity around the stellate figure, which disappears without trace in a few days; in another case a simple ulceration of the cornea is developed; in a third, keratitis with hypopyon, and deposits on the surface of the iris and of the membrane of Descemet. Here the elimination of the fungi is not produced, as in the former case, by simple expulsion of the elements from the healing wound, but by their absorption into the newly formed bloodvessels. We also frequently see the most intense form of inflammation produced by the spread of the fungi—viz., a very deep and diffuse infiltration of the cornea, with consequent necrosis, panophthalmia, and prolapse of the iris and vitreous. In those cases the fungi are distributed throughout the whole of the tissues, and not confined to the corneal figures. Thus we learn that bacteria do not produce any specific form of inflammation, but that they act first by pure mechanical irritation. Then the inflammation and its products increase the vital energy of the fungi, so that they grow more rapidly in the inflamed tissue than before.

A great variety of fluids containing bacteria were employed for inoculation, such as an infusion of meat in putrefaction, pus, serum, etc., but all were not efficacious—a difference which is perfectly unaccountable. The cause is certainly not a difference of species of bacteria, but perhaps a different quality of the medium in which the organisms live before being inoculated. To produce the effect, it is always necessary to introduce the organisms into the tissue. Without the presence of a wound, no fluid of any kind has any effect whatever.

Another series of experiments showed the possibility of re-inoculation from one cornea to a second and a third. A fluid containing bacteria does not lose its effect by becoming dry; but after exposure to a temperature of 60° to 100° Cent. it becomes inert. The disease caused by the inoculation in the cornea in every case remained entirely local, the author never being able to detect any general affection of the animals.

The work, of which we have thus briefly given the substance, is the result of a careful experimental investigation on a very clear field. The transparency of the cornea, and the accuracy with which its structure is known, rendered possible much greater minuteness of research than any other tissue could possibly have afforded. We must, therefore, attach great value to the conclusions at which the author has arrived. Once more we see a confirmation of Billroth's striking idea that there is a close relation between inflammation and putrefaction and their mutual products.

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During last week several deaths occurred at Darwin, chiefly from exhaustion consequent upon the fever epidemic.

Dr. Dudgeon says the Chinese suppose that diseases—for example, syphilis—have a tendency to break out afresh in spring, the time when all nature is opening and budding.—*Report of the Peking Hospital for* 1873.

## GENERAL CORRESPONDENCE.

### ATTRIBUTES OF LEPROSY.—DR. V. CARTER'S REPORT ON LEPROSY IN NORWAY.

Letter from Dr. G. Milroy.

[To the Editor of the Medical Times and Gazette.]

Sir,—As the following correspondence, recently issued from the Colonial Office, may be interesting to the profession, you will perhaps be so good as to make it known through your journal.

Richmond, Dec. 14. I am, &c., G. Milroy.

[*Circular.*]

Downing-street, October 27, 1874.

Sir,—With reference to the Earl of Kimberley's circular dispatch of September 4, 1873, I transmit to you the enclosed copy of a report made to the Secretary of State for India by Surgeon-Major Carter, of the Bombay Army, on leprosy in Norway, together with a copy of a letter from Dr. Milroy. You will be good enough to communicate this report and Dr. Milroy's letter to the chief medical officers of your Government.

I have, &c., Carnarvon.

The Officer Administering the Government of ———.

Richmond, September 8, 1874.

Sir,—In reply to your letter of the 29th ult., I have the honour to state that, as it is very desirable that public attention continue to be drawn to the subject of leprosy in the colonies where that disease prevails, it would be advantageous, I think, to have Dr. Carter's report communicated to them; and I take leave to suggest that the following observations accompany its transmission:—

1. Dr. Carter states(a): "That leprosy may be personally communicated and received amongst human beings has not been strictly demonstrated; and the force of negative facts being awarded paramount influence, it has been held that this disease is, in fact, not so communicable; and the opinion has been superadded that there is no need of leper asylums in countries infested with the malady. It was recently affirmed by high British authority—viz., a committee appointed by the London College of Physicians in June, 1862—that, as a measure for checking the progress of leprosy, the compulsory segregation of lepers was not to be recommended; and, *inter alia*, it was advanced that the decline of leprosy in Europe (during the middle ages) is attributable chiefly to improvement in diet, as well as of general hygiene,—identical results being predicted for India on similar grounds. Apparently, the assumption that leprosy is not contagious led to this discountenance of leper asylums, and the necessity for consistently explaining its extinction in Europe probably led to this result being referred to improved hygiene."

I am not aware where or when the opinion "that there is no need of leper asylums" has been expressed. All who have seen the disease must recognise, I should think, the necessity for destitute lepers of such institutions when well placed and well conducted.

The declarations by the College of Physicians in 1863,(b) to the effect that the documentary statements then before them "contain no evidence which, in their opinion, justifies any measures for the compulsory segregation of lepers"—in other words, for their forcible detention and seclusion,—were made in answer to communications from the Colonial Office, requesting the opinion of the College on the subject referred to, and intimating that the Secretary of State (then the Duke of Newcastle) "contemplates sending out a circular to the governors of all her Majesty's colonies, expressing an opinion that any laws affecting the personal liberty of lepers ought to be repealed; and that in the meantime, or if they shall not be repealed, any action of the executive authority in enforcement of them, which is merely authorised and not enjoined by the law, ought to cease."

The Norwegian Government has, it appears, acted in the same manner, avoiding all compulsory measures.

"Of the ascertained number (of lepers throughout the kingdom), nearly two-thirds remain in their homes; the remainder are induced to enter an asylum. To this end, however, no active coercion is employed; it may be made a condition of relief in the instance of pauper lepers, but this is no greater

(a) Report, page 25.
(b) Report of College, pages vi., vii. 1867.

constraint than our own poor are subjected to. The advantages of thus placing their sick, as regards both themselves and the patients, are at last, I am informed, becoming apparent to the peasant and fisherman. Government has been solicited to interfere more actively with the movements and actions of the leper, and that more than once, but the propositions have not been acceptable. As there is no compulsion either to give information or to enter an asylum, so likewise is there none to remain there." (e)

On the important question as to the contagion or communicability of leprosy by personal intercourse from the sick to the healthy, Dr. Carter has not stated what conclusions he came to himself from what he saw and heard in Norway; but he has given a recent instructive paper by Professor Boeck, of Christiania, who has been long one of the leading authorities in Europe on the disease. This paper declares—

"We both (Dr. Boeck and his colleague Dr. Danielssen) pronounce ourselves decidedly against its being contagious. . . . In our Christiania Hospital we have always got some lepers under treatment, but have never thought of separating them from the other cases of skin disease, and have never observed any infection being caused."

2. With reference to the propriety of strict separation of the sexes in leper asylums, Dr. Carter quotes(d) the following passage from the circular despatch of Lord Kimberley, of September 4, 1873 (which has been inserted in an article in a medical journal,(e) and a copy of which article is hereto annexed), to the Governors of the West India Colonies:—

"The fact that leprosy is transmitted by parent to child is indisputable; and as leprosy by descent is often, through a natural error, mistaken for leprosy by contagion, the members of one family being naturally in contact, it is important that this fact should be borne in mind. It is a fact which points also to the expediency of placing asylums for females at a distance from asylums for males, when circumstances permit, and when the numbers are such as to justify separate establishments."

Dr. Carter adds, "In quoting the above remarks I do not necessarily endorse all that they contain; but I am glad to find the views, which are not above advocated for the first time or the second, seem at length likely to be adopted by her Majesty's Government, and also by the Royal College of Physicians of London."

In reply, I would observe that the College distinctly stated(f) that "there is an almost unanimous concurrence of opinion that leprosy is often hereditary." The practical inference is obvious—viz., that, as with insanity, all means short of compulsion should be used to bar the propagation of the malady by heredity. Acting on this belief, I strongly urged(g) the point on the local authorities in the case of the several asylums in the West Indies which I visited in 1871-72.

Already in the Trinidad Asylum a distinct ward for female lepers has been erected at a distance from the main building, where the men and boys are accommodated; and the same thing is about to be done in Demerara.

In a communication from the College of Physicians to the Colonial Office, August 10, 1873,(h) special reference was made to this subject:—

"The College thinks it very desirable that, on all occasions, the hereditary character of the disease should be kept steadily in view. In the majority of cases leprosy is an hereditary transmission. How far, however, it may be possible or right, politically and socially, to prevent the transmission of leprosy from parent to child, is a question that should not be lost sight of."

3. The general evidence contained in Dr. Carter's Report relating to the medical history of leprosy in Norway corroborates the leading conclusions adopted by the College of Physicians from the mass of documents submitted to their consideration, and the soundness of which conclusions was confirmed by the results of my personal experience in the West Indies a few years afterwards.

The information he gives respecting the condition and management of the asylums in that country, to the operation of which he mainly attributes the gradual decline of the disease there of recent years, is highly valuable and suggestive, and well deserves the attention of all our Colonial Governments.

I am, &c., GAVIN MILROY.

The Hon. R. H. Meade, Colonial Office.

(c) Dr. Carter's Report, pages 14, 15.
(d) *Ibid.*, page 30.
(e) "Recent Official Correspondence relating to Leprosy," in the *Brit. and For. Med.-Chir. Rev.*, 1874.
(f) Report of College, page lxvii.
(g) "Report on Leprosy and Gaws," pages 12 and 21-30.
(h) "Recent Official Correspondence," *loc. cit.*

## DR. G. BUCHANAN AND DR. LETHEBY'S OPENING ADDRESS.

### LETTER FROM DR. GEORGE BUCHANAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your account of the meeting of the Society of Medical Officers of Health, held on November 22, I am reported to have proposed a vote of thanks to the President of the Society for his opening address, and to have stated that examination of the statistics of the South-Eastern Sanitary Districts and of Lancashire had led me to "conclusions very similar to those of Dr. Letheby."

Allow me to inform you that I did not propose a vote of thanks to the President; this had already been done at the October meeting, when his address was delivered: and that in presenting the statistics to which your report refers I made no statement of the conclusions to which they had led me. The omission was made of purpose, in order that each reader of my paper might be induced to study for himself the evidence adduced. As, however, this omission appears to have been misunderstood, I am obliged in this letter to add that my statistics brought me, in respect of the branch of inquiry with which they dealt, to a conclusion opposed to those of Dr. Letheby. I am, &c., GEORGE BUCHANAN.

24, Nottingham-place, W., December 21.

[We regret that we cannot insert Dr. Buchanan's paper of statistics, a copy of which he has kindly sent to us; but as it was distributed to the members of the Society, its wider publication is of less importance.—ED. *Medical Times and Gazette.*]

## THE PHYSIOLOGY OF SPASM AND PALSY OF THE LARYNX.

### LETTER FROM DR. GEORGE JOHNSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your report of the discussion on my paper at the Royal Medical and Chirurgical Society I am made to say, in reply to Dr. Broadbent's difficulty as to the explanation of bilateral palsy,—"If the connexion between the nuclei can be found, it must be so." What I did say was, that if the nuclei of the spinal accessory and vagi nerves and their commissural fibres be found to have undergone structural change, the bilateral palsy will be fully explained.

It is manifest that irritation of one vagus nerve can affect the laryngeal muscles on the opposite side only through the nervous centre, and at the central origin of the nerves concerned we must look for evidence of structural change when bilateral palsy of the larynx has existed during life.

Savile-row, Dec. 19. I am, &c., GEORGE JOHNSON.

## COLCHICUM POISONING (?).

### LETTER FROM MR. WILLIAM ELLIOTT PORTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—This neighbourhood has just been the scene of a very painful occurrence by which two children—a boy aged four, and a girl aged two years—have lost their lives. I send you a sketch of the cases, the notes of the post-mortems, and the result of the analysis, for publication if you please.

Lindfield, Sussex, Dec. 21. I am, &c.,
WILLIAM ELLIOTT PORTER.

On the 4th inst. I was summoned by J. K., a farm labourer in this parish, to see two of his children who were suffering from severe diarrhœa. I sent some ordinary diarrhœa mixture, composed of pulv. ecret. aromat. e. op. sp. chlorof. et aquæ, for them, and saw them about three o'clock in the afternoon. The boy had just been taken out of a hot-bath; he was in convulsions, and died in less than half an hour. The girl had had convulsions, and was in a state of semi-insensibility; she was quieter than she had been, but she was moribund, and

died in abont two hours and a half in a convnlsive fit. They were seen by my friend Mr. Bull, but there was no scope for treatment beyond the hot-bath, warmth, and, when animation was snspended (in the boy—I was not present when the girl died), artificial respiration, which I persisted in till the heart ceased to beat.

On the day previous the children were both well; they went to school, returned, ate their dinner of potatoes, dripping-pndding, and jam, and went back to school again. At four o'clock, when they returned, the boy felt ill, with coldness, shivering, sickness, and purging. The symptoms increased in severity; there was intense thirst, vomiting, purging, tormina, and tenesmus; and the evacuations were scanty and bloody. About nine, convulsions supervened: they never left him, neither was he ever again sensible; and in twenty-four hours from his seizure he was dead. The girl failed two hours after her brother in a similar manner, and in twenty-four hours she died also. By order of the coroner I made a post-mortem examination of each of the bodies. The appearances in each were identical except in the points stated. I will, therefore, transcribe my notes of the boy only. External appearances: Fairly nourished; thin rather than fat; post-mortem congestion in dependent positions. Mouth pale and clean; lungs congested throughout, but not consolidated; liver pale but healthy; gall-bladder naturally full. Stomach contained about two tablespoonfuls of brownish fluid (diarrhœa mixture?); the mucous membrane was somewhat, but not intensely, inflamed. Small intestines: At about half their length there was an intussusception of about three inches; the lining membrane was congested the whole length, but not very much so; and all they contained was a little discoloured mucus of a brownish colour that became darker at their lower part; the congestion also increased in its descent; at their end there were three or four seeds like cress-seeds. The large intestine was intensely inflamed its whole length, but most so at its lower part; it contained a little discoloured mucus and one seed. Kidneys healthy; bladder full of water. In the girl the inflammation in the bowels and stomach was less intense than in the boy, and the bowels contained five or six lumbrici; her bladder was empty.

Dr. Tidy analysed some blood from the right side of the heart of each subject, and the contents of their stomachs, etc. Among these contents were some colchicum seeds; he also obtained what appeared to be colchicine from the blood of each; and his opinion was that the children were poisoned by colchicum.

The verdict returned by the jury was in accordance with the medical evidence; but how, or by whom, the poison was given to the children, or how they got it, there was no evidence to show.

## MEDICAL NEWS.

University of Dublin.—At the Winter Commencements held in the examination hall of Trinity College on Wednesday, December 16, the following degrees in Medicine and Surgery were conferred by the Right Hon. Hedges Eyre Chatterton, Vice-Chancellor of Ireland and Pro-Vice-Chancellor of the University:—

*Baccalurei in Medicinâ.*—Blood, Matthæus Smyth; Dorman, Johannes Cotter; Drummond, David; Forsyth, Georgius Crompton; Griffith, Robertus; Hearn, Ricardus Thomas; Hunter, Gulielmus L.; Kellett, L. H.; Mason, Samuel R.; MacLaughlin, Alexander J.; Ormsby, Lambert Hepenstal; Nickson, Georgius M.; Pollen, Henricus.

*Magistri in Chirurgiâ.*—Dorman, Johannes Cotter; Drummond, David; Eaton, Jacobus Bird; Murray, Carolus Fredericus; Murphy, Georgius Wyndham.

*Doctores in Medicinâ.*—Ashe, Isaac; Tweedy, Henricus J.; M'Intire, Ricardus Lyttou.

University of Dublin.—School of Physic in Ireland.—At the Michaelmas Term Examination for the degree of Bachelor of Medicine, held on Thursday and Friday, December 3 and 4, the following candidates were successful:—

| | |
|---|---|
| Hunter, William L. | Taafe, Robert. |
| Kellett, Leonard H. | Mason, Samuel R. |
| Hearn, Richard Thos. | Nixon, George M. |
| Farrell, Peter J. | Bleakley, Alexander S. |
| Drummond, David. | Blood, Matthew S. |

At the Examination for the degree of Master in Surgery, held on Monday and Tuesday, December 7 and 8, the following gentlemen passed:—

| | |
|---|---|
| Eaton, James B. | Murphy, George W. |
| Murray, Charles F. | Johnston, William. |
| Drummond, David. | |

At the Examination for diplomas in State Medicine, held on Thursday, December 10, and following days, the candidates passed as follows:—

| | |
|---|---|
| Boileau, J. P., M.D. | Tweedy, Henry J., M.D. |
| Woodhouse, Stewart, M.D. | |

N.B.—In all the above lists the names are arranged in the order of merit.

Royal College of Physicians of London.—The following gentlemen were admitted Licentiates of the College on December 21, viz.:—

Benton, Samuel, Wakering, Southend.
Andrew, George, St. Bartholomew's Hospital, E.C.
Brewer, Reginald Edward Wormald, Newport, Monmouthshire.
Clarke, Henry, Guy's Hospital, S.E.
Crocker, Henry Radcliffe, University Hospital, W.C.
Day, Charles Henry, 12, Doughty-street, W.C.
Harper, Gerald Samuel, 121, Warwick-street, S.W.
Homan, George William, King's College Hospital, W.C.
Lawrence, Thomas George, 3, Rutland-street, N.W.
Muteh, Robert Samuel, 38, Gower-street, W.C.
Newman, Charles, 1, Pennywell-road, Bristol.
Richardson, John Billingsley, 13, Portsea-place, W.
Ross, George Hamilton, 11, Hart-street, W.C.
Smith, Henry Hammond, 23, Craven-street, W.C.
Smith, Herbert Neale, Richmond Villa, Brighton.
Spitta, Edmund Johnson, Clapham-common, S.W.
Talbot, Joseph Bindley, County Asylum, Shrewsbury.
Taylor, John William, Charing-cross Hospital, W.C.
Thomas, Herbert Henry, 26, Rutland-street, N.W.
Thomson, Peter James, 52, Harrington-street, N.W.

The following candidates having passed in Medicine and Midwifery, will receive the College licence on obtaining a qualification in Surgery recognised by this College, viz.:—

Edwards, Roger, University Hospital, W.C.
Murrell, William, 12, York-street, St. James's-square, S.W.

The following gentleman was admitted Member:—

Folkard, Henry, 18, Blenheim-crescent, W.

King and Queen's College of Physicians in Ireland.—At monthly examination meetings of the College held on Tuesday, Wednesday, and Thursday, December 8, 9, and 10, the following candidates obtained the licence to practise Medicine:—

| | |
|---|---|
| Burton, Harry. | Herapath, C. K. C. |
| Cooper, John Nield. | Johnston, John Somerville. |
| Duke, Alexander. | Murray, Henry George. |
| Duke, Mansergh Pace. | O'Farrel, Denis Paul. |
| Grosholz, Frederick Hermann. | Wilding, William Arthur. |

The licence to practise Midwifery was granted to—

| | |
|---|---|
| Burton, Harry. | Grosholz, Frederick H. |
| Chester, William Litchfield. | Johnston, John Somerville. |
| Cooper, John Nield. | Murray, Henry George. |
| Duke, Alexander. | Preston, Augustus R. Richard. |
| Duke, Mansergh Pace. | |

The licence to practise as a Midwife and Nurse-tender was was granted to—

Carroll, Miss Jane.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 17:—

Cassan, Theodore, County Asylum, Gloucester.
Spark, Sidney Walter, 30, Myddelton-square, N.
Watts, Fred, Plymouth.

The following gentleman also on the same day passed his primary professional examination:—

Taylor, Henry Edward, of the Leeds School of Medicine.

### APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Blake, J. French, L.R.C.P. Edin., L.F.P.S. Glasg., L.S.A.—Surgeon to the Islington and North London Provident Dispensary, Hornsey-road Branch.

Mackenzie, George Hunter, M.B., C.M., L.M.—Assistant-Surgeon to the Gateshead Dispensary.

Wallis, Albert W., M.R.C.S., L.S.A.—Medical Officer of the Beard Industrial School, Brentwood.

### MILITARY APPOINTMENTS.

War Office.—Medical Department.—Surgeon John Adsetts to be Surgeon-Major, *vice* James Balfour Cockburn, M.D., retired upon temporary half-pay. Surgeon Charles de Montmorency Palmer, M.B., retires upon temporary half-pay.

### BIRTHS.

Gray.—On December 20, at 45, St. Giles's, Oxford, the wife of Edward B. Gray, M.D., of a son.

HEATH.—On December 11, at 36, Cavendish-square, W., the wife of Christopher Heath, F.R.C.S., of a son.

ORTON.—On December 22, at 30, Lower Phillimore-place, Kensington, W., the wife of George Huut Orton, M.B. Lond., of a daughter.

ROYSTON-PIGOTT.—On December 18, at Hartley Court, uear Reading, the wife of G. W. Royston-Pigott, M.D., F.R.S., of a son.

### MARRIAGES.

BURKITT—MOSTYN.—On December 16, at All Saints, Kensington, Wm. Robert Walsh Burkett, Surgeon-Major 52nd Light Infantry, to Louisa Charlotte, third daughter of the Rev. George Thornton Mostyn, M.A., of Elgin-road, Kensington-park.

DICKSON—WILLS.—On December 15, at All Saints, Narborough, Leicestershire, John, second son of Dr. E. D. Dickson, Physician to the British Embassy at Constantinople, to Edith Mary, youngest daughter of George Wills, Esq., of Copt Oak House, Narborough.

MACLACHLAN—MONTGOMERIE.—On December 16, at St. Paul's Church, Edinburgh, Dugold MacLachlan, Esq., solicitor and banker, Lochgilphead, Argyllshire, to Margaret Campbell, only daughter of the late James Montgomerie, M.D., Edinburgh.

POPHAM—CLARKE.—On November 5, at St. George's Church, Gawler, South Australia, Francis William Home Popham, L.R.C.P., M.R.C.S., to Julia Louisa (Dudie), youngest daughter of Frederick Christian Clarke, Esq., of Chapel-street, Bedford-row, London.

### DEATHS.

ADAMS, PRISCILLA GEORGINA, widow of George Adams, M.D., at Folkestone, on December 15, aged 71.

ANDERSON, MARTHA, wife of John Anderson, M.D., of North Park House, Croydon, at Richmond, Surrey, after mauy years' suffering, on December 13, aged 57.

FLEMING, HOPE STEWART, M.D., late of the Madras Medical Establishment, at 7, George-street, Hanover-square, on December 19, aged 78.

FOSTER, JOHN, B., M.R.C.S., at 13, Upper Wimpole-street, on December 16, aged 32.

HASTINGS, JOHN, M.D., suddenly, of heart disease, at 14, Albemarle-street, Piccadilly, on December 20, in his 70th year.

STEEL, JAMES STEEL, M.D., late of H.E.I.C.S., at Priory Lodge, Cheltenham, on December 14.

THURSFIELD, MARY, the beloved wife of William Thursfield, M.D., at 39, High-street, Bridgnorth, on December 14, aged 36.

### VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as kuown) are stated in succession.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—Physician. Candidates must be F. or M.R.C.P., or must undertake to become so within six months. Applications, with testimonials, to Committee of Management, at the Hospital, on or before January 1, 1875.

GLOUCESTER INFIRMARY.—Surgeon and Assistant-Surgeon. Candidates for these appointments must be F. or M.R.C.S. Applications, with testimonials, to the Secretary, on or before December 31.

MIDDLESEX HOSPITAL.—Surgical Registrar. Candidates must be F. or M.R.C.S. Eug. Applications, with testimonials, to the Secretary, on or before January 8.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY-ROAD, E.—House-Surgeon. Candidates must possess a double qualification. Applications, with testimonials, to the Secretary.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, Dr. John C. Hall, at the Hospital.

SURREY DISPENSARY, GREAT DOVER-STREET, SOUTHWARK.—Additional Surgeon. For informatiou apply to Mr. R. G. Minshull Jones, Secretary, 190, Tooley-street, S.E.

TRINITY COLLEGE, DUBLIN.—Professor of Chemistry. Applications and testimonials to the Registrar, on or before January 23, 1875. Further particulars may be obtained from the Rev. Dr. Haughton, Medical Registrar, Trinity College, Dublin.

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SURGEON-MAJOR SAMUEL ROWE has been appointed to be a member of the Legislative Counoil of the Gold Coast Colony.

MR. WALTER CLEGG, M.R.C.S., has been appointed Medical Officer of Health for Boston Port Sanitary District.

DR. J. EDMUNDS has been appointed Medical Officer of Health and Public Analyst for the parish of St. James's, Westminster.

THE Mayor, Mr. H. Fell Pease, last week formally opened a new fever hospital for Darlington, erected at a cost of £9225.

SUNDAY, June 13 next, has been selected as the Metropolitan Hospital Sunday for the coming year.

INFUSION OF MYRTLE IN LEUCORRHŒA.—Dr. Delioux de Savignae recommends this as a useful and agreeable injection in leucorrhœa. The berries or leaves, containing both essential oil and tannin, are the best parts of the plant for this purpose. From ten to fifteen grammes should be infused in a litre of boiling water, and, if powerful astringent action is desired, from twenty to thirty grammes may be used. The injection should be used cold or tepid, and in large quantities (three or four litres), and thrown up as high as possible. The application is much liked by women on account of its pleasant odour.—*Révue Medico-Photographique*, October.

SUBCUTANEOUS INJECTION OF CARBOLIC ACID IN TRAUMATIC ERYSIPELAS.—Dr. Hirsehberg relates the case of a slaughterman who accidentally cut his upper arm, the wound being about five inches long, and penetrating the muscles. A good deal of venous hæmorrhage followed. On the second day a bad attack of erysipelas of the arm came on. A two-per-cent. solution of carbolic acid was injected subcutaneously at the upper boundary of the erysipelas, and next day all traces of erysipelas had disappeared. The injections were repeated five times within the next three days, and the wound healed far more rapidly and with much less suppuration than could have been expected.—*Berlin Woch.*, Nov. 30.

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## NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*C. R., Liverpool.*—About the bad taste of the advertisements there can be no doubt, nor about the puffing character of the Sunday exhibition; but no licensing body can "make a silk purse out of a sow's ear." The whole is humiliating to men who practise medicine as a profession, not as a trade. We have not seen the lecture you speak of, but if you send it to the Royal College of Surgeons they will judge its character. The Oxford degree to which you allude is not a medical one.

*Lithotomist, Wimpole-street.*—The following are the lines:—

> "One day the surveyor, with a sigh and a groan,
> Said, "Doctor, I'm dying of gravel and stone!"
> The doctor replied, 'This is true, then, though odd—
> What kills a surveyor 's a cure for a road.'"

*Student.*—Apothecaries anciently dealt in sweetmeats, spices, and confectionery; they were first legally established as dispensers of drugs by edict of Frederick II., in the thirteenth century. The apothecaries of London were incorporated by James I., 1606, and united with the grocers; incorporated as a separate company by James II., December 6, 1615.

*Gabel.*—St. George's Hospital, Hyde-park-corner, was instituted October 19, 1733.

*P. M. E.*—Chloroform was discovered in 1832. It was first used by Dr. Simpson, of Edinburgh, as an anæsthetic agent in 1848.

*D. D. Wootton.*—1. Yes. 2. By the 32 Henry VIII., cap. 40, 1540, the members of the College of Physicians had expressly reserved to them the right to practise surgery.

*Clough, jun.*—Alehouses are mentioned in the Laws of Ina, A.D. 728, and have been under legislative regulations for the last 400 years.

*Ethelred.*—The medicinal qualities of the waters at Epsom were discovered in 1618; these are well known as "Epsom Salts."

*Medicines in* 1864 *and* 1874.—As showing how little the remedies most valued change as time rolls on, the following comparison of a selected six in 1864 and in the present year will no doubt be read with some interest, and perhaps imitated at many professional parties at this festive season. A few evenings ago a party of ten sat down to dinner at the table of a most hospitable member of the profession, and, we believe, a member of the Court of Examiners of one of our learned institutions, where two, if not three of his guests were colleagues. During the dessert a proposition was started by Dr. ——, that, supposing all present were limited to a selection of six articles from the Pharmacopœia, what would they choose as being most useful, excluding compound drugs. Each visitor was required to place on a separate piece of paper those he preferred, and to hand the list to Dr. ——, who, examining the papers, stated that a majority was in favour of the following:—

| 1864. | 1874. | |
|---|---|---|
| Opium. | Opium. | |
| Quinine. | Quinine. | |
| Mercury. | Mercury. | equal. |
| Pot. iod. | Pot. iod. | |
| Iron. | Iron. | |
| Ammonia. | Ammonia / Chloroform | equal. |

*Philip, Bath.*—Daniel Lambert, who died June 21, 1809, weighed, a few days before his death, 52 stone 11 lbs., or 739 lbs.

*Chemicus.*—Distillation is said to have originated amongst the inhabitants of Northern Europe. It was, with many other arts connected with chemical science, introduced into Spain by the Moors about 1150.

*J. F. B.*—The first printed book on midwifery was published by Eucharius Roesslin in 1513. The invention of the forceps was made by Dr Paul Chamberlen in 1640.

*Cauford.*—The Medical Council was established by Act of Parliament 21 and 22 Vic., cap. 90, August 2, 1858. Sir Benjamin Brodie was elected the first President, November, 1858.

*G. Ralph.*—A charter of incorporation was granted to the Antiquaries' Society, London, November 2, 1751. The Antiquaries' Society of Scotland was founded in 1780.

UNPAID LABOUR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The Registrar of Births and Deaths for my district has called on me to-day, presenting me with a large supply of forms of medical certificates for the registration of the cause of death (under the Births and Deaths Registration Act, 1874), with a request that they must always be strictly filled up in accordance with the new instructions. I have read those instructions, and also the memorandum on the first page, stating that the heads of the medical profession approve of this form of certificate, etc. Doubtless the body of the profession feel equally interested in supplying useful records of facts; but why, in the name of all that is fair and reasonable, do not the heads of the profession use their influence with the heads of the Government to provide some remuneration for this extra tax upon their more needy brethren? I am, &c.,

Hurstbourne Tarrant, Andover, December 21. T. W. BLAKE, M.R.C.S. Eng.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—Le Mouvement Médical—La France Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Students' Journal and Hospital Gazette—O Correio Medico de Lisboa—Irish Hospital Gazette—Bulletin Général de Thérapeutique—Cincinnati Lancet and Observer—Central News—Philadelphia Medical Times—New York Medical Journal—Anfiteatro Anatomico Espanol.

BOOKS AND PAMPHLETS RECEIVED—

Pettenkofer on Cholera, translated by Hime—Liddle's Report on the Sanitary Condition of Whitechapel—Heredity, from the French of Th. Ribot—McCall Anderson's Inaugural Address in connexion with the Chair of Clinical Medicine—Is Torquay Relaxing? by Dr. Radclyffe Hall—Les Quarantaines, par le Dr. H. Rey—Tageblatt der 47 Versamlung Deutscher Naturforscher und Aerzte in Breslau, vom 18 bis 24, September, 1874—Beard on the Longevity of Brain Workers—Cases of Hysteria, Neurasthenia, etc., by G. M. Beard, M.D.—Hamilton on the Present State of the Army Medical Service as a Life Career for the Surgeon.

COMMUNICATIONS have been received from—

Mr. G. SUTTON, London; THE REGISTRAR-GENERAL, Edinburgh; Mr. B. VINCENT, London; Dr. L. KIDD, India; Dr. T. WOODS, Wilmington, U.S.A.; Dr. DOWSE, London; Dr. T. H. GREEN, London; THE REGISTRAR OF APOTHECARIES' HALL, London; THE SECRETARY OF THE HOSPITAL SUNDAY FUND, London; Dr. G. BUCHANAN, London; Mr. T. W. BLAKE, Hurstbourne Tarrant; Mr. WATHEN, Fishguard; Mr. W. E. PORTER, Lindfield; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; AN OLD PRACTITIONER; Mr. J. CHATTO, London; Mr. H. J. FENNELL, Dublin; Dr. TRIPE, Hackney; Dr. RENTON, Edinburgh.

## APPOINTMENTS FOR THE WEEK.

*December* 26. *Saturday* (*this day*).

*Operations* at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

28. *Monday.*

*Operations* at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic 1½ p.m.

29. *Tuesday.*

*Operations* at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Gladstone, "On the Voltaic Battery: The Cell and its Effects." (Juvenile lecture.)

30. *Wednesday.*

*Operations* at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

31. *Thursday.*

*Operations* at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Gladstone, "On the Voltaic Battery: The Replacement of Metals." (Juvenile lecture.)

*January* 1. *Friday.*

*Operations* at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

## VITAL STATISTICS OF LONDON.

*Week ending Saturday, December* 19.

### BIRTHS.

Births of Boys, 1266; Girls, 1160; Total, 2426.
Average of 10 corresponding years 1864-73, 2133·9.

### DEATHS.

| | Males | Females. | Total. |
|---|---|---|---|
| Deaths during the week | 989 | 953 | 1947 |
| Average of the ten years 1864-73 | 807·1 | 777·5 | 1584·6 |
| Average corrected to increased population | ... | ... | 1743 |
| Deaths of people aged 80 and upwards | ... | ... | 105 |

### DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

| | Population, 1871. | Small-pox. | Measles. | Scarlet Fever. | Diphtheria. | Whooping-cough. | Typhus. | Enteric (or Typhoid) Fever. | Simple continued Fever. | Diarrhœa. |
|---|---|---|---|---|---|---|---|---|---|---|
| West ... ... | 561359 | ... | 5 | 7 | 2 | 3 | 1 | 2 | 2 | 5 |
| North ... ... | 751729 | 1 | ... | 14 | 3 | 8 | ... | 9 | ... | 2 |
| Central ... | 334369 | ... | ... | 8 | 1 | 6 | 1 | 2 | 1 | 2 |
| East ... ... | 639111 | ... | 1 | 28 | ... | 14 | ... | 7 | 3 | ... |
| South ... ... | 967692 | 1 | 12 | 19 | 3 | 19 | ... | 5 | 4 | 4 |
| Total ... ... | 3254260 | 2 | 18 | 76 | 9 | 50 | 2 | 25 | 10 | 13 |

### METEOROLOGY.

*From Observations at the Greenwich Observatory.*

| | |
|---|---|
| Mean height of barometer | 29·687 in. |
| Mean temperature | 32·9° |
| Highest point of thermometer | 40·6° |
| Lowest point of thermometer | 25·2° |
| Mean dew-point temperature | 29·9° |
| General direction of wind | N.N.E. |
| Whole amount of rain in the week | 0·41 in. |

### BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 19, 1874, in the following large Towns:—

| Boroughs, etc. (Municipal boundaries for all except London.) | Estimated Population to middle of the year 1874.* | Persons to an Acre. (1874.) | Births Registered during the week ending Dec. 19. | Deaths Registered during the week ending Dec. 19. | Temperature of Air (Fahr.) Highest during the Week. | Lowest during the Week. | Weekly Mean of Mean Daily Values. | Temp. of Air (Cent.) Weekly Mean of Mean Daily Values. | Rain Fall. In Inches. | In Centimetres. |
|---|---|---|---|---|---|---|---|---|---|---|
| London ... ... | 3400701 | 45·1 | 2426 | 1947 | 40·6 | 25·2 | 32·9 | 0·50 | 0·41 | 1·04 |
| Portsmouth ... | 120436 | 26·8 | 73 | 53 | ... | 24·6 | ... | ... | 0·40 | 1·02 |
| Norwich ... ... | 82257 | 11·0 | 46 | 55 | 40·0 | 24·5 | 33·7 | 0·95 | 0·74 | 1·88 |
| Bristol ... ... | 192889 | 43·3 | 123 | 90 | 40·0 | 22·1 | 32·5 | 0·28 | 0·45 | 1·14 |
| Wolverhampton ... | 70896 | 20·9 | 55 | 31 | 39·0 | 14·4 | 29·5 | −1·39 | 1·15 | 2·92 |
| Birmingham ... | 360892 | 43·0 | 255 | 181 | 40·0 | 21·6 | 32·3 | 0·17 | 0·89 | 2·26 |
| Leicester ... ... | 106202 | 33·2 | 61 | 60 | 39·0 | 18·8 | 32·1 | 0·03 | 0·30 | 0·76 |
| Nottingham ... | 90394 | 45·5 | 62 | 58 | 38·5 | 20·1 | 31·8 | −0·11 | 0·25 | 0·63 |
| Liverpool ... ... | 510640 | 98·0 | 420 | 393 | 42·2 | 27 8 | 33·8 | 1·01 | 0·24 | 0·61 |
| Manchester ... | 355339 | 82·8 | 281 | 246 | 39·0 | 17·0 | 30·2 | −1·00 | 0·50 | 1·27 |
| Salford ... ... | 133068 | 25·7 | 109 | 86 | 38·6 | 15·1 | 30·6 | −0·78 | 0·35 | 0·89 |
| Oldham ... ... | 86281 | 18·5 | 69 | 55 | ... | ... | ... | ... | ... | ... |
| Bradford ... ... | 163056 | 22·6 | 111 | 106 | 38·6 | 23·9 | 32·0 | 0·00 | 0·24 | 0·61 |
| Leeds ... ... | 278798 | 12·9 | 238 | 145 | 40·0 | 27·0 | 34·5 | 1·39 | 0·41 | 1·04 |
| Sheffield ... ... | 261029 | 13·3 | 234 | 177 | 40·0 | 25·3 | 33·3 | 0·72 | 0·13 | 0·33 |
| Hull ... ... ... | 130996 | 36·0 | 95 | 90 | 40·0 | 26·0 | 32·7 | 0·39 | 0·33 | 0·84 |
| Sunderland ... | 104378 | 31·6 | 119 | 57 | 45·0 | 27·0 | 33·4 | 2·44 | 1·02 | 2·59 |
| Newcastle-on-Tyne | 135437 | 25·2 | 109 | 76 | 39·0 | 23·0 | 31·3 | −0·39 | 2·34 | 5·94 |
| Edinburgh ... ... | 211691 | 47·8 | 152 | 124 | ... | ... | ... | ... | ... | ... |
| Glasgow ... ... | 508109 | 100·4 | 361 | 442 | 45·0 | 17·3 | 32·0 | 0·00 | 0·47 | 1·19 |
| Dublin ... ... | 314666 | 31·3 | 138 | 170 | 41·9 | 23·8 | 34·1 | 1·17 | 0·48 | 1·22 |
| Total of 21 Towns in United Kingdm | 7618655 | 36·6 | 5537 | 4642 | 45·0 | 14·4 | 32·5 | 0·28 | 0·58 | 1·47 |

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·69 in. The lowest was 29·09 in. at the beginning of the week, and the highest 30·04 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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